Prospects of India–Bangladesh Economic Cooperation: Implications for South Asian Regional Cooperation

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Abstract

In recent years, South Asia has received growing attention as a region that is integrating successfully into the global economy. To maximize the benefits in terms of faster growth and poverty reduction, the region will need to strengthen regional and bilateral cooperation in several areas. In this context, closer bilateral cooperation and integration between major South Asian countries, such as between India and Bangladesh, will strengthen the South Asian Association for Regional Cooperation (SAARC) and help ensure the effectiveness and efficiency of their activities. Cultural, trade, and economic exchanges between the two countries are long standing. India and Bangladesh boast of a total population of more than 1 billion, and their rapid domestic economic development and good cooperation have demonstrated broad prospects for further cooperation. A remarkable growth in two-way trade between India and Bangladesh has resulted in robust growth of the economies in the region. India has become Bangladesh's largest trading partner in South Asia. Compared with their strength, much potential exists for developing trade and economic relations between the two countries. This paper discusses various opportunities and associated prospects and problems in strengthening the India–Bangladesh economic cooperation and integration agenda in the context of SAARC.

JEL Classifications: F10, F15, R40

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1. INTRODUCTION

Recent years have witnessed a shift in regional economic cooperation strategy from multilateral to bilateral cooperation agreements (ADB, 2006a). Several region-wide economic liberalization and cooperation initiatives, such as the Association of Southeast Asian Nations (ASEAN) in East Asia and the South Asian Association for Regional Cooperation (SAARC) in South Asia, are prominent, but complete realization of their objectives remains unfulfilled. Aggressive and increasing bilateral trade and investment accords are confirming a shift from a regional emphasis on multilateralism to a drift away from multilateralism. This trend is raising concern that regional economic cooperation and integration could suffer. However, if bilateral cooperation and integration is pursued in a way it becomes compatible to the wider aims of regional economic integration, this could be a stepping stone and a necessary step toward regional or subregional accords.

The South Asian subcontinent is home of about 39% of world's extremely poor people (428.4 million in 2001), far exceeding the Sub-Saharan African average (315.8 million in 2001).[1] The majority is concentrated in the eastern part of South Asia, an area comprising Bangladesh, Bhutan, Nepal, and the eastern and northeastern states of India. This subregion represents the greatest challenge in the fight against poverty. However, because of the region's unique endowment of resources, it can be transformed into a leading subregion of economic growth.

In recent years, South Asia has received growing attention as a region that is integrating successfully into the global economy. Free trade agreements (FTAs) of the SAARC (SAFTA) and Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) will likely boost economic integration not only in South and Southeast Asia but also between the two regions. However, to maximize the benefits in terms of faster growth and poverty reduction, the South Asian region needs to strengthen regional and bilateral cooperation in several areas, together with ambitious structural reforms to entrench macroeconomic stability and ensure an attractive and conducive environment for investment. Closer and properly planned bilateral cooperation among countries will strengthen the regional cooperation and integration process (e.g., SAARC and BIMSTEC) and help ensure the effectiveness and efficiency of their activities.

Sluggish progress in multilateral trade negotiations under the Doha Development Round appears to have further accelerated the rush to forge regional cooperation. In general, regional trade agreement activities have intensified across the world. There is an increasing trend toward regional cooperation and integration, such as bilateral and regional preferential trade agreements in Asia and in other regions, particularly the expanded European Union (EU), and North American integration, namely, the North American Free Trade Agreement (NAFTA) and Central American Free Trade Agreement (CAFTA). In Asia, the major regional and/or subregional economic cooperation programs include ASEAN, SAARC, Greater Mekong Subregion (GMS) Economic Cooperation Program, South Asia Subregional Economic Cooperation (SASEC), and BIMSTEC. In South Asia, India and Bangladesh belong to several regional and subregional economic cooperation programs, such as SAARC, SASEC, and BIMSTEC.

The slow progress of the SAARC has forced South Asian countries to pursue bilateral FTAs. For example, India signed bilateral FTAs with Bhutan, Nepal, and Sri Lanka in South Asia, and with Thailand and Singapore in Southeast Asia. India is also negotiating a bilateral FTA

[1] People who are living on less than PPP US$ 1 a day. Taken from Table 2.2 of *SAARC Regional Poverty Profile 2005* (SAARC Secretariat, 2006, p. 12). Corresponding figure for the whole world is 1092.7 million for the year 2001.

with Bangladesh. Sri Lanka concluded an FTA with Pakistan in 2005. Negotiations on a bilateral FTA between Bangladesh and Pakistan are also progressing.

A discussion on bilateral relations between India and Bangladesh is clearly justified when their growing interdependence in industry and trade is considered. According to the Asian Development Bank (ADB, 2006b), intra-regional trade and investment offer immense opportunities for accelerating growth and reducing poverty in South Asia. India could become a hub for stimulating the growth of intra-industry trade in the region and boost the inflow of foreign investment to South Asia. At the same time, in view of several regional and subregional cooperation programs involving India and Bangladesh, bilateral economic cooperation and integration between these two economies is a necessary step for a long-term construction of an integrated South Asia. This will provide the basic foundation for a more effective SAARC in moving toward more free market and trade-oriented policies.

India and Bangladesh are good neighbors. Notwithstanding the development that India and Bangladesh have witnessed in recent years, the two countries together still contain a large number of extremely poor people living on one dollar a day.[2] This is the real challenge posed before the two countries. Although they are situated in a region endowed with vast resources, they have failed to convert these resources into productive and collective wealth in an accelerating manner.

Together India and Bangladesh boast a total population of more than 1 billion, and their rapid domestic economic development has demonstrated broad prospects for cooperation. However, as Nag points out,[3]

> "India's economic performance in the past two decades has been remarkable, but closer subregional integration would help the country and its neighbors to achieve their full economic potential."

India and Bangladesh are still characterized by a low level of economic integration, despite the fact that their economies are complementary to a large extent and stand to benefit substantially from economic integration. However, compared with their strength, there still exists much potential for developing trade and economic relations between the two countries.

This paper discusses the emerging trends in India–Bangladesh economic cooperation and integration, and various prospects and opportunities for strengthening their relationship in the context of South Asian regional cooperation. The paper attempts to identify the potential for economic cooperation in different segments of trading infrastructure. It also reviews the prevailing profile of the transport infrastructure sector of India and Bangladesh. Finally, underlining the importance of trade facilitation in the growth of bilateral and regional cooperation, the paper concludes with few remarks on policies to deepen economic integration.

2. ECONOMIC GROWTH AND INFRASTRUCTURE

The experience of nations everywhere since the end of World War II—openness to external trade and foreign investment—permits more rapid economic growth than protectionist regimes achieve. Countries which have chosen to integrate with the global economy have done better in reducing poverty in the long run.

[2] The poverty rate of extremely poor people in Bangladesh is 32.8% of total population (2001), whereas the same for India is 35.5% (Table 2.3 of *SAARC Regional Poverty Profile 2005* (SAARC Secretariat, 2006)

[3] Speech of Dr. Rajat Nag, Managing Director General, Asian Development Bank, Manila, delivered in New Delhi on 28 November 2006.

Rising income is increasingly relevant for the participation of developing countries and least developed countries (LDCs) in the globalized economy. In South Asia during the 1990s, as India and Bangladesh followed Sri Lanka into the ranks of countries known as rapid globalizers, strong growth tallied with sharp drops in poverty incidence—from 51% in 1977–1978 to 27% in 1999–2000 in India, and from 45% in 1991 to 34% in 2000 in Bangladesh (World Bank, 2004). Bangladesh did well in the 1990s in raising its per capita income, compared to its performance in the previous three decades. In fact, in the 1990s, the country's per capita income growth crossed not only that of Pakistan but also South Asia's average, and the momentum continued for the next four years (see Table 1). Bangladesh has also made considerable gains in poverty reduction and primary education. With respect to universal primary education, girls and boys in the primary and secondary schools are equal in number. Bangladesh's infant mortality rate is lower than that of India, and it could achieve the Millennium Development Goal of reducing its infant mortality rate by two thirds by 2015 (World Bank, 2004). However, over 63 million people still live in poverty, making Bangladesh one of the poorest countries in the world. Despite improvements, access to education, health care, and jobs are still unequal in the country. In general, 1980–2004 saw a significantly high per capita income growth in South Asia, although Pakistan and Sri Lanka—because of political reasons and ethnic conflict, respectively—suffered setbacks. Therefore, the effect on poverty reduction in India and Bangladesh, where growth was the principal driver of poverty reduction, was dramatic.

Table 1: Average Annual Growth Rates of Real GDP per Capita[a]

Countries	1960–70	1970–80	1980–90	1990–2000	2000–04
	(%)				
Bangladesh	1.48	(1.57)	1.19	3.42	3.46
India	1.83	0.70	4.21	4.27	4.89
Nepal	0.58	0.02	2.70	2.87	0.70
Pakistan	5.19	1.58	4.09	1.51	1.65
Sri Lanka	2.33	2.96	3.53	4.65	3.50
South Asia	2.28	0.74	3.15	3.34	4.22

[a] Taken at constant US $ (at 2000 international prices).
Source: Compiled from World Development Indicators CD-ROM 2006, World Bank.

The South Asian economies are well endowed with labor. Trade openness is therefore expected to stimulate production and expansion of labor-intensive exports, thus generating employment, raising wages, and thereby reducing poverty. The link between greater trade openness and poverty reduction need not be direct; it could be through the positive impact of trade expansion on growth performance, a correlation that has been established in extensive empirical research. Cross-country studies on the relationship between growth performance and poverty reduction lead to the conclusion that a close correspondence exists between growth of per capita income and growth of per capita infrastructure stocks, though not all growth is necessarily pro-poor.

More importantly, trade openness is a necessary but not a sufficient condition for rapid growth. The growth impact of trade may be an important factor underlying the observed changes in poverty and inequality. Trade policy reforms generally have to be accompanied by complementary measures for ensuring macroeconomic stability and efficient financial intermediation, improving infrastructure services, improving the investment climate for private enterprises, and removing barriers to trade.

According to trade theory, the benefits of globalization in terms of trade liberalization are expected to flow to abundant factors, and to unskilled labor in developing countries such as India and Bangladesh. Trade creates both winners and losers in the short term, and sometimes that may be unfavorable for the lower income groups. In the short term, trade

liberalization acts more like an (indirect) income distribution policy than a poverty alleviating policy. Rather, the long-term or growth impact of trade liberalization is more important as well as sustaining for poverty alleviation (Acharyya, 2006). A recent study (Banerjee and Newman, 2004) suggests that removing trade barriers may adversely affect the wages of unskilled labor in labor-abundant developing countries. In the long run, economic integration could foster rapid economic growth and a significant rise in the standard of living, hence reducing poverty. But during the transition, the burden of adjustment might fall disproportionably on poor people. Another study (Topalova, 2005) on the impact of trade liberalization on poverty reduction in Indian districts concludes that the effects of trade liberalization were not uniform over districts. Liberalization had insignificant benefits (or a disproportionate share of burden) with respect to poverty reduction for those districts that are more exposed to potential foreign competition. Therefore, appropriate policies may be required to address the social cost of inequality by redistributing the gains of trade liberalization. Strengthening labor mobility in the short to medium term is thus crucial to reduce the adjustment burden of liberalization.

In spite of strong per capita GDP growth in the 1990s, the progress in the infrastructure sector in India and Bangladesh has failed to keep pace with its growth in trade (Ghosh and De, 2000; De and Ghosh, 2003; De, 2005). There is now broad consensus that openness to trade, coupled with improved infrastructure, must be a key component of policies to accelerate economic growth in South Asia (ADB, 2006b). Therefore, faster progress in infrastructure development will be crucial to sustaining South Asia's competitive advantages.

Low quality of infrastructure, coupled with high logistics costs for India and Bangladesh, is derived from poor transport infrastructure, underdeveloped transport and logistics services, and slow and costly bureaucratic procedures dealing with bilateral trade (De, 2005). The opportunities for improving infrastructure facilities are immense given that India and Bangladesh offer the similar characteristics of high population growth and high incidence of poverty. India and Bangladesh can mutually reinforce one another's economic strengths by synergizing their complementarities in the areas of industry, services, trade, and technology provided these economies put in place adequate infrastructure facilities. Interestingly, setting in place adequate infrastructure is getting momentum because of the rising stock of intra-regional capital, represented by foreign exchange reserves ($143.76 billion in 2004), and growing fixed capital formation (21.96% of GDP in 2004). Bangladesh and India have realized that without having proper infrastructure in place, foreign direct investments (only $1.69 billion for Bangladesh and $39.66 billion for India for 1990–2004) may not flow in large amounts despite the region's labor cost advantage (Sahoo, 2006). Table 2 briefly captures these findings.

Table 2: Selected Economic Indicators in 2004

Particulars	Unit	Bangladesh	India	South Asia
Population	Million	139.21	1,079.70	1,446.80
Population growth[a]	%	1.88	1.43	1.66
Population density	Per sq. km.	1070	363	303
GDP per capita[b]	$	402.07	538.31	521.55
GDP per capita PPP[c]	$	1,718.90	2,885.30	2,635.00
Trade in goods[d]	%	36.28	41.64	41.36
FDI[e]	$ Bn.	1.69	39.66	52.31
FER[f]	$ Bn.	3.17	126.59	143.76
FCF[g]	%	23.42	22.68	21.96

[a] Annual population growth rate.
[b] Taken in constant 2000 US $.
[c] Purchasing Power Parity (PPP) taken in constant 2000 price.
[d] Taken goods and services, as percentage of GDP.
[e] Foreign Direct Investments net inflows, cumulative figure, taken at current $ billion for the period 1991–2004.
[f] Foreign Exchange Reserves (excluding gold), taken at current $ billion.
[g] Fixed Capital Formation (gross), taken in average as percentage of GDP for the period 2001–2004.
Source: World Bank. 2006. World Development Indicators 2006. CD-ROM.

The relative paucity of integrated and improved infrastructure networks in South Asia is not difficult to remove, given the region's outward-looking policies and increasing openness. Liberalization in India has made the region's economies more dynamic in several ways. South Asia is becoming more open, outward-oriented, and more receptive to foreign investment and trade. At this juncture, working together to improve infrastructure facilities, an essential element in enhancing intra-regional trade, will pave the way for the region's international market access and, through this, to higher income.

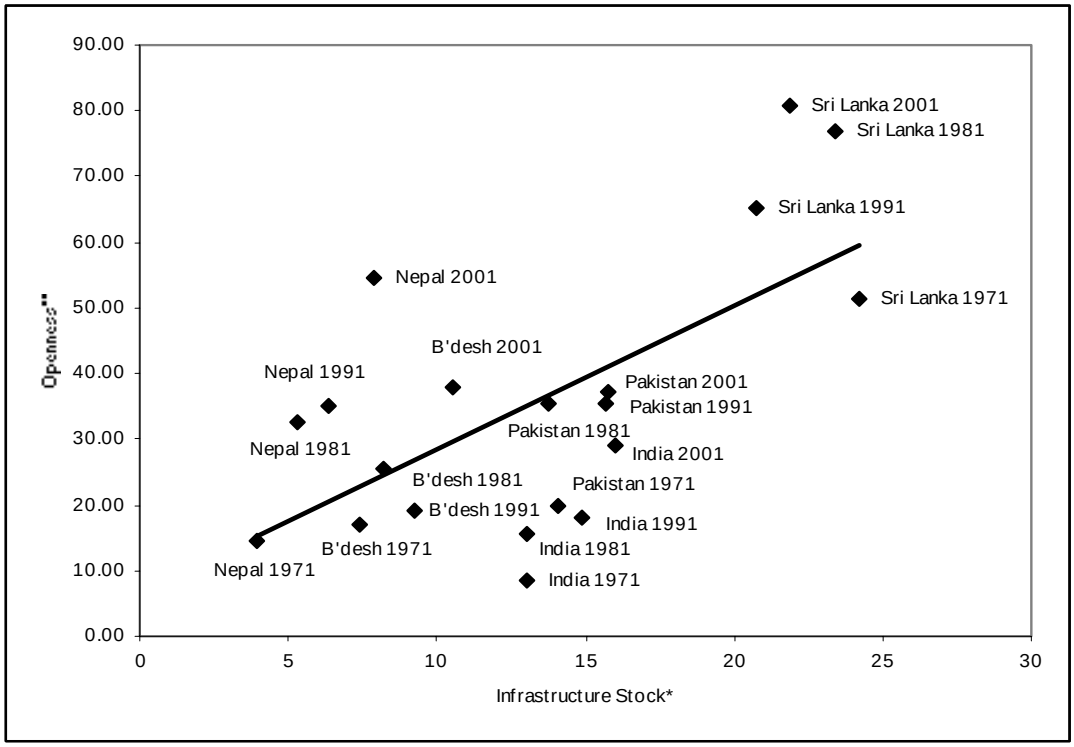
The key objective of the cooperation in trade and investment is to achieve more rapid growth in exports through improvements in product design, marketing, financing, and logistics. Appropriate industries with potential comparative advantage need to be identified. Associated soft infrastructure to support trade and investment should be in place. These include: (i) approval and implementation of required legal and policy reforms; (ii) implementation of effective border crossing and transport services; (iii) effective agreement on trade and transit treaties between participating countries in the context of the SAARC, SASEC, BIMSTEC; (iv) establishment of a facility to encourage investments in small and medium enterprise exporters and to improve their market access; and (vi) promotion of human resource development, better education, and appropriate technology transfer.

The aim of cooperation among South Asian countries in general and between India and Bangladesh in particular should be to use the available resources optimally to provide maximum welfare in the whole region. Naturally, the rationale for this type of cooperation lies in removing visible and invisible trade barriers, and exploiting the complementarities for the mutual benefit of all.

The literature offers substantial evidence linking improvements in infrastructure directly to improvements in export performance of a country or a region. The effects are especially strong when importers have access to multiple suppliers of highly substitutable

commodities.[4] Several studies show that the quality of transport infrastructure improves international market access of a region and leads directly to increased trade and, through this, to higher incomes. The question is whether policy-induced improvement of such critical infrastructure matters. The answer is: it does. Figure 1 provides a better understanding of the proposition in the context of South Asia. Those countries lying above the fitted line score high on measures of openness, and are accessible to world markets in the sense of having superior infrastructure facilities. In the recent period, these countries are Sri Lanka, Bangladesh, and Nepal. India and Pakistan lie below the fitted curve. Economies with higher openness and with fewer political barriers to trade enjoy greater returns to infrastructure investments than those whose political system and poor infrastructure facilities prevent trade growth. If Sri Lanka is an example of the former, India and Pakistan are the cases of the latter. Benefits from free trade would thus be limited if infrastructure services, particularly transport infrastructure, are too weak to support the trade growth.

Figure 1: Potential Contribution of Infrastructure to Openness in South Asia



* The measures of infrastructure stock are based on those indicated in De and Ghosh (2005).
** Openness considers trade as percentage of GDP.
Sources: De and Ghosh (2005) for infrastructure stock, and World Development Indicators CD-ROM 2005, World Bank, for openness.

Figure 1 thus suggests the importance of two features in the context of South Asian economies: openness, and infrastructure stock and economic growth. The economies that are successful in placing themselves at a higher plateau for a longer time and moving toward the upper right corner of the diagram (here only Sri Lanka) enjoy a higher income than those below the fitted curve. Causality probably runs both ways. Economies like those of Singapore and Hong Kong, China have grown rich in part because their past investments in superior logistics including ports have facilitated trade. Meanwhile, India and Bangladesh still

[4] Comparing sales by manufacturers of similar products, Hummels (1999) estimated that exporters with 1% lower shipping costs will enjoy a 5–8% higher market share. Limao and Venables (2001) found differences in infrastructure quality account for 40% of the variation in transport costs for coastal countries and up to 60% for landlocked countries. Fink et al. (2002) estimated that liberalizing the provision of port services and regulating the exercise of market power in shipping could reduce shipping costs by nearly a third.

suffer from poor port facilities. Countries that are outward-oriented with modern port facilities (Sri Lanka) are better equipped to enjoy the benefits of borderless global trade than countries that are open but equipped with relatively poor facilities (Bangladesh).[5] Regional cooperation in the region is needed to bring up to speed those countries that lag behind. Establishing well-functioning, efficient, and integrated transport infrastructure facilities is essential for the economic development and trade growth of both individual countries and the region as a whole.

3. TRADE FLOWS AND TRADE COSTS

The performance of South Asia is poor in terms of intra-regional trade. Countries within the SAARC do not have significant trade with one another in spite of their geographical proximity and income levels. For instance, intra-regional trade in ASEAN at present is about 20% per annum, which increased from a mere 5% in the beginning of the 1990s, whereas the same in South Asia is only 4%, and that too has been hovering in the same position for the last decade. At present, the official intra-regional trade in South Asia is about $6.25 billion[6] where India alone contributes more than 45% of total intra-regional trade. The rest is equally distributed among Bangladesh, Nepal, Pakistan, and Sri Lanka.

Table 3 presents the pattern of intra-regional trade in South Asia for three cross-section points (1991, 1995, and 2003). This table clearly shows that despite overall economic progress in South Asia since 1991, the economies in the region have not yet engaged in higher trading among themselves; intra-regional trade only amounted to 4.18% of trade their global trade in 2003. However, there has been a marginal increase in intra-regional trade during 1991 to 2003, which increased from 3.02% in 1991 to 4.18% in 2003. Except Pakistan, the rest of the South Asian countries have engaged in comparatively higher trade within the region during 1991–2003.

Table 3: Intra-South Asia Trade

Countries	Trade with World			Trade with SAARC			Intra-SAARC Trade		
	$ Million			$ Million			%		
	1991	1995	2003	1991	1995	2003	1991	1995	2003
Bangladesh	5108	9,625	16,011	335	1,234	1,775	6.56	12.82	11.09
India	37,381	65,021	126,689	718	1,742	3,402	1.92	2.68	2.69
Maldives	216	407	584	33	58	189	15.28	14.25	32.36
Nepal	757	1,091	2,416	120	164	473	15.85	15.03	19.58
Pakistan	14,925	19,452	24,968	339	419	496	2.27	2.15	1.99
Sri Lanka	5,048	8,282	11,797	369	646	1,298	7.31	7.80	11.00
South Asia	63,435	103,878	182,744	1,914	4,263	7,633	3.02	4.10	4.18

SAARC = South Asian Association for Regional Cooperation.
Sources: Direction of Trade Statistics Yearbook, IMF, various issues; and Handbook of Statistics, UNCTAD, various issues.

[5] Ghosh and De (2000) and De and Ghosh (2003, 2005), using several infrastructure facilities across the South Asian countries over the last two decades, have shown that differential endowments of infrastructural facilities were responsible for rising regional disparity in South Asia.

[6] Several studies show that there is considerable informal trading in South Asia, which has evolved due to several geopolitical and commercial reasons. See, for example, Chaudhury, 1995; Taneja, 1999; Pohit and Taneja, 2000.

In recent years, South Asia has received growing attention as a region that is integrating successfully into the global economy. With SAFTA, South Asian countries are now looking toward deeper integration of the region. SAFTA, which was signed during the 12th SAARC Summit in Islamabad in 2004, came into force on 1 July 2006. It will be fully operational by 2016. SAFTA includes some 5,500 tariff lines, taking into account both agricultural (695) and industrial products. Box 1 provides the implementation deadlines of SAFTA. This agreement would lead to growth in intra-regional trade from $6 billion to $14 billion within two years of its existence.

Box 1: SAFTA Implementation Plan

For non-LDCs (India, Pakistan, Sri Lanka)

- In first 2 years (July 2006–January 2008) tariffs to be reduced to 20%
- India, Pakistan to reduce tariffs to 0–5% in next 5 years (by January 2013)
- Sri Lanka to reduce tariffs to 0–5% in next 6 years (by January 2014)
- To reduce tariffs for LDCs to 0–5% in 3 years (by January 2011)

For LDCs (Bangladesh, Nepal, Bhutan, Maldives)

- In first 2 years (July 2006–2008) tariffs to be reduced to 30%
- To reduce tariffs to 0–5% in 8 years (January 2008–January 2016)

LDC = least developed country.
Source: SAARC Secretariat, Kathmandu

3.1 Bilateral Trade between India and Bangladesh

Trade offers immense opportunities for raising the economic welfare of Bangladesh and India. 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.[7] Under said trade agreement, both countries provide most-favored nation treatment to each other. However, the agreement does not provide any bilateral trade concessions. Such tariff concessions are accorded to each other only under the provisions of the South Asian Preferential Trading Arrangement (SAPTA) signed in April 1993 and which became effective in December 1995. Under four rounds of negotiations held so far, India had offered concessions on 2,927 products (at 6-digit HS Classification), of which 2,450 products were offered exclusively to least developed countries (LDCs) including Bangladesh. The concessions that India offered for LDCs were 62; 514; and 1,874 products in the first, second, and third rounds, respectively. On the other hand, Bangladesh had offered concessions on 564 products to non-LDCs, including India. The concessions offered for non-LDCs were for 11; 215; and 338 products in the first, second, and third rounds, respectively. Later, as a gesture of goodwill, India offered 100% tariff concessions on 16 product groups consisting of 40 tariff lines to Bangladesh during the trade review talks in April 2002 held in

[7] This was an interim arrangement, which identified the commodities to be traded and fixed a monetary ceiling for the export/import of each commodity with a view to achieving balanced trade. This was replaced by a new agreement in July 1973. The new agreement was amended in December 1974 to include a clause that bilateral trade between the two countries would be conducted in convertible currency effective 1 January 1975. The current agreement was signed on 4 October 1980 and has been extended for successive periods of three years.

Dhaka. Duty-free access was announced for items under another 39 tariff lines during the trade review talks held in March 2003.

Despite India's unilateral concessions to Bangladesh and the existence of a large land border between two countries, India's trade with Bangladesh is not growing at a considerable rate. Bilateral trade is highly tilted toward India; India's exports to Bangladesh total about $1,892.55 million and imports from Bangladesh are about $121.91 million. India's exports to Bangladesh witnessed average annual growth of 7.31% in 1995–2006, whereas India's imports from Bangladesh grew at a much slower pace, 3.81%, in the entire period. India's imports from Bangladesh witnessed a quantum jump in 2005–2006 (Table 4). This suggests that a large potential exists for enhancing India–Bangladesh trade.

Table 4: India's Trade with Bangladesh

Year	Export	Import	Total
	($ million)		
1995–96	1,049.10	85.90	1,135.00
1996–97	868.96	62.23	931.19
1997–98	786.46	50.81	837.27
1998–99	995.64	62.40	1,058.04
1999–00	636.31	78.15	714.46
2000–01	935.04	80.51	1,015.55
2001–02	1,002.18	59.12	1,061.30
2002–03	1,176.00	62.05	1,238.05
2003–04	1,740.75	77.63	1,818.38
2004–05	1,606.56	59.26	1,665.82
2005–06*	1773.85	130.77	1904.62
2006–07*	1892.55	121.91	2014.46

Note: *Refers to calendar year.
Sources: Ministry of Commerce and Industry, Government of India; and IMF, DOTS CD-ROM 2006.

Bangladesh's exports to India in recent years expanded presumably because of trade liberalization, initiated by India unilaterally and regionally (SAPTA). While Sri Lanka has been successful in narrowing the trade asymmetry with India, perhaps as an effect of the India–Sri Lanka FTA, the same between India–Bangladesh has been widening perhaps due to the absence of a bilateral FTA between the two countries.[8]

Composition of India's Trade with Bangladesh

India has a large number of exportable goods. The composition of India's exports to Bangladesh is diversified with cereals, cotton, and vegetable products accounting for a quarter of India's exports to Bangladesh in 2004–2005. Next in importance comes textile and textile products, followed by base metals and related articles. Over five years starting in 2000-01 while the share of vegetable products increased, that of textile and textile articles declined. The shares of most of the remaining product group increased, reflecting greater product diversification. The top 10 export commodity groups (at HS 2-digit level) from India to Bangladesh account for about 70% of India's total exports to Bangladesh (Tables 5a, 5b).

[8] The trade deficit between India and Bangladesh has widened from $0.96 billion in 1995–1996 to $1.77 billion in 2006–2007.

Table 5a: India's Top 10 Export Commodities to Bangladesh in 2004–2005

HS Code	Commodity Group	Volume ($ million)	Share* (%)
10	Cereals	408.98	25.46
52	Cotton	206.79	12.87
7	Edible vegetables and certain roots and tubers	105.30	6.55
27	Mineral fuels, mineral oils, and products of their distillation, bituminous substances, mineral waxes	82.72	5.15
73	Articles of iron and steel	72.72	4.53
23	Residues and waste from the food industries; prepared animal fodder	67.43	4.20
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	64.84	4.04
87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	55.97	3.48
25	Salt, sulphur, earths and stone, plastering materials, lime and cement	50.13	3.12
72	Iron and steel	44.72	2.78

*Share in total Indian exports to Bangladesh.
Source: Ministry of Commerce and Industry, Government of India.

Table 5b: India's Top 10 Export Products to Bangladesh in 2004–2005

HS Code	Product Name	Value ($ million)	Share* (%)
1001	Wheat and meslin	189.79	11.81
1006	Rice	185.76	11.56
5205	Cotton yarn	113.37	7.06
0703	Onions, shallots, garlic, leeks, and other alliaceous vegetables, fresh or chilled	66.59	4.14
2304	Oil cake and other solid residues	59.88	3.73
7326	Other articles of iron and steel	43.68	2.72
2701	Coal; briquettes, ovoids, and similar solid fuels manufactured from coal	43.08	2.68
5209	Woven fabrics of cotton	41.95	2.61
2710	Petroleum oils and products	39.04	2.43
0713	Dried leguminous	35.99	2.24

*Share in total Indian exports to Bangladesh.
Source: Ministry of Commerce and Industry, Government of India.

Table 5a shows that the primary Indian export commodities to Bangladesh at 2-digit HS classification in 2004–2005 were cereals, cotton and edible vegetables, and certain roots and tubers. However, at 4-digit HS classification, India's major exports to Bangladesh in 2004–2005 were cotton (not carded or combed); rice, wheat, and meslin; onions, shallots, garlic, leeks, and other alliaceo; oil cake and other solid residues; coal, briquettes, ovoids, and similar solid fuels; flat-rolled products of iron or non-alloy steel; etc. (Table 5b). Therefore, an overview of India's exports to Bangladesh reveals that the most important items are those that are required to meet the neighbor's food deficit and those finished and intermediate raw materials that are required for the country's industrialization. Bilateral trade intensity indices between the two countries indicate that Bangladesh has offered not only a

steady export market for almost all products of Indian origin over last 2.5 decades but a very large one at that (Sikdar, 2006).

In addition to official trade, there is considerable volume of informal trade between India and Bangladesh. Informal exports from India to Bangladesh are about equal to official exports. The composition of informal trade flows is generally complementary to, but markedly different from, formal trade flows. A large portion of informal exports take place through West Bengal and North Eastern Region (NER) of India, comprised largely of food items, live animals (mainly cattle), and consumer goods. Similarly, unofficial imports from Bangladesh to India are dominated by a few major products, including synthetic yarn, electronic goods, and spices.[9]

Trade Potentials and Possibility of a Free Trade Agreement between India and Bangladesh

India and Bangladesh offer high potentials of trade in goods. The degree of trade complementarity between Bangladesh's imports and India's exports was quite high during 1980 to 2004. As noted in Sikdar (2006), the trade complementarity index for India's exports to Bangladesh was 59% on average for the period 1980–2004, whereas the same for Bangladesh's exports to India was 28%. In other words, estimated indices indicate that India's exports to Bangladesh enjoyed comparatively higher complementarity than Bangladesh's exports to India. Supply constraints make it difficult for Bangladesh to take advantage of the Indian market. Nevertheless, India's tariff concession has been helping Bangladesh expand its export baskets to India, the results of which were reflected in higher exports in 2005–2006.

Scopes of trade expansion between the two countries appear to be high if we consider comparative advantages of the individual countries in merchandise trade. For example, 7 out of the 15 commodities mentioned in Table 6 show the possibility of bilateral trade between India and Bangladesh. For these commodities, the comparative advantage of one country is rightly matched by the comparative disadvantage of the other making mutually beneficial trade possible. In two of these commodities—textile yarn and metal manufacturing—India shows very high export potential and Bangladesh offers significantly high import potential. However, in no commodity for which Bangladesh has high export potential does India offer high potential of import. Both countries have export potential in textile articles, and clothing accessories and footwear, making the possibility of bilateral trade in these two commodities lower. Barring these two commodities, possibilities of bilateral trade expansion in other commodities between the two countries are relatively high. Table 6 shows that India was endowed with revealed comparative advantage (RCA>1) in nine commodities in 2004, which together share about 8.40% of total imports of Bangladesh (Sikdar, 2006). Therefore, India has a fairly high potential to meet the import demand of Bangladesh.

[9] For a detailed overview of informal trade between India and Bangladesh, refer to ICSSR-NERC (2005).

Table 6: Trade Potentials between India and Bangladesh

Commodities	India	Bangladesh
Food, beverages, tobacco, and live animals	Potential exporter*	Potential importer
Crude materials including fuel	Potential importer	Potential importer*
Chemicals, dyes, and clothing products	Potential importer	Potential importer*
Medical, pharmaceutical, perfumes, cleaning products and chemical materials n.e.s**	Potential exporter	Potential importer*
Basic manufactures (rubber and paper)	Potential exporter	Potential importer
Textile yarn and fabrics	Potential exporter*	Potential importer*
Textile articles n.e.s	Potential exporter*	Potential exporter*
Nonmetal mineral manufactures	Potential exporter	Potential importer*
Iron, steel, and nonferrous metal	Potential exporter	Potential importer*
Metal manufacturing	Potential exporter*	Potential importer*
Machines	Potential importer	Potential importer*
Electronic machines	Potential importer	Potential importer*
Transport equipment	Potential importer	Potential importer*
Clothing accessories and footwear	Potential exporter*	Potential exporter*

* With high absolute revealed comparative advantage (RCA), estimated for the year 2004.
** Not elsewhere stated
Source: Sikdar, 2006.

However, the scope of expanding exports from Bangladesh to India seems limited. It is argued that if Bangladesh strengthens its export supply capacity and India offers higher market access, exports from Bangladesh to India would likely rise. Therefore, the entire debate of trade expansion between India and Bangladesh has been focused on the magnitude of market access that India has been offering Bangladesh. Bangladesh then expects to receive full duty-free market access in India by 2013 under SAFTA. Nonetheless, Bangladesh relies heavily on the implementation of SAFTA to achieve greater market access in India.

The bilateral FTA between the two countries is another option for Bangladesh to strengthen her export capacity. An FTA for Bangladesh apparently has advantages. According to Siriwardana and Yang (2007), an FTA will force the two countries to move out of the present commodity-by-commodity approach in negotiations and allow free market access bilaterally for all commodities except for an agreed short negative list. Added impetus would be the opportunity under the FTA to eliminate all nontariff barriers in a given time frame. Bangladesh is to experience an assured market in India which may induce new export capacities by taking the competitive advantage of sectors which at present do not have high exporting prospects to other countries. This will also be beneficial to Bangladesh because previously unavailable foreign capital may flow from India to those newly emerging sectors under the negotiated conditions of the FTA (Siriwardana and Yang, 2007).

To judge the relative scale of trade expansion between the two countries, we reply on a dynamic model reproduced from Siriwardana and Yang (2007). The sectoral export responses to the FTA are provided in Table 7, estimated by Siriwardana and Yang (2007) in a computable general equilibrium (CGE) framework. These projections indicate how individual sectors perform in terms of exports at the bilateral level with the abolition of import duties. For both India and Bangladesh, the magnitudes of change in export volumes bring similar outcomes in the short and long run. Under the FTA, both countries can expect increased exports in manufactured goods to each other, with Bangladesh showing potentially better prospects than India to gain from newly created market access. Except for other crops and grains, many Indian agricultural industries may find their exports to Bangladesh declining. For both countries, there are substantial prospects for exporting goods such as textile and leather, petroleum and other minerals, and fabricated metal

products to each other. All in all, the manufacturing exports would seem to thrive under the FTA for both India and Bangladesh.

Table 7: CGE Simulation Results: Changes in Export Volume under the Free Trade Agreement between India and Bangladesh (% change)

	Short-Run Scenario		Long-Run Scenario	
	From India to Bangladesh	From Bangladesh to India	From India to Bangladesh	From Bangladesh to India
Grains	13.13	2.57	13.06	2.67
Vegetables and fruits	(1.39)	92.52	(1.51)	92.65
Other crops	83.43	86.45	83.44	86.52
Animals and animal products	(2.34)	72.38	(2.49)	72.54
Forestry and fishing	(0.70)	49.99	(0.47)	50.28
Minerals	0.16	0.16	0.13	0.59
Food manufactures	62.05	99.45	62.04	99.60
Beverages and tobacco	11.28	327.30	11.35	327.52
Textile and leather	55.02	177.64	55.28	177.74
Wood and paper products	79.76	44.95	79.98	44.99
Petroleum and other minerals	53.21	125.83	53.24	125.97
Chemical, rubber, and plastic	51.26	26.66	51.33	26.82
Basic metals	65.28	59.32	65.49	59.38
Fabricated metal products	97.52	182.63	97.75	182.77
Other manufactures	161.85	115.17	162.06	115.30
Electricity, gas, and water	(0.88)	0.56	(0.81)	0.98
Construction	(0.10)	0.48	(0.18)	0.87
Trade, transport, and communication	(0.62)	0.54	(0.44)	0.43
Private services	(0.48)	0.15	(0.38)	0.34
Public services	(0.76)	0.75	(0.45)	0.57

Note: CGE simulation was based on Global Trade Analysis Project Version 5.
Source: Siriwardana and Yang, 2007.

However, the World Bank (2006) in a study found a weak case for pursuing a bilateral FTA between India and Bangladesh based on the potential economic benefits to both countries. Instead, this study argued that unilateral trade liberalization by both countries would yield much larger economic benefits while minimizing risks. To get mileage out of an FTA, both countries were advised to continue with unilateral liberalization while streamlining border transactions through trade facilitation.

Siriwardana and Yang (2007) indicated that India may gain marginally more in terms of GDP because of improved terms of trade. However, the projected trade outcomes imply that the FTA will provide a significant stimulus for Bangladesh to increase its trade with India. Both countries will likely experience a substantial surge in manufactured goods exports to each other as duty-free market access opens with the FTA. The CGE projections suggest that a great deal of benefits to Bangladesh will come from improved performance in highly labor-intensive manufacturing sectors. Thus, a free trade treaty between the two countries could support their shared goal of poverty alleviation.

However, to maximize the gains from the envisaged FTA, trade transaction costs between the two countries have to be minimized. These costs are very high due to infrastructure bottlenecks at borders and inside the countries (De, 2006). The World Bank (2006) also

argued that an FTA will bring large welfare gain for consumers in Bangladesh provided infrastructure and administrative capacity at custom borders adequately expand.

3.2 Trade Transaction Costs

Studies indicate that South Asia could potentially benefit substantially from higher trade provided trade and transport barriers are removed and transaction costs are minimized.[10] As noted in Arnold (2004), Bangladesh has succeeded in improving logistics by modernizing customs clearance procedures, especially for exports and temporary imports. However, the country has failed to improve the performance of its transportation system as rapidly as its neighbors. The cargo-handling technology and method of operation of the Port of Chittagong remain mired in the 1970s. The benefits of multimodal transport are unrealized as a majority of the "full container load" (FCL) containers continue to be stuffed and "unstuffed" at the port. Transport of containers by rail is underdeveloped because of lack of commercial management at Bangladesh Railways. Inland customs facilities and storage are limited and the available facilities are not located in a way that will minimize overall delivery costs. Slow and uncertain vessel turnaround and container dwell times prevent producers from developing efficient supply chains from the factory to the buyers' warehouse or introducing just-in-time production.

The incidence of transaction costs between India and Bangladesh for about $2 billion two-way official trade is too high; during 2001 to 2006, India incurred about 23.20% of total imports from Bangladesh as trade transaction costs (Table 8). Although the table shows a falling trend, the transaction costs are very high when compared with the developed world or even developing Asia. Costs for not having improved transit and transport infrastructure facilities may be higher if several invisible and unaccountable incidences are added to it. If calculated in terms of opportunities lost due to lack of transport infrastructure, the amount would be staggering. To a great extent, as an effect of high trade costs, bilateral and intra-regional trade activities between India and Bangladesh and among South Asian countries are not taking a good shape as yet.[11]

Table 8: Bilateral Trade Transaction Costs for 1995–2006

	Transaction Costs (%)		
	1995–2000	2001–2006	1995–2006
	(Annual Average)		
Bangladesh's imports from India	15.95	9.06	12.51
India's imports from Bangladesh	37.84	23.20	33.00

*Considered between-country transaction costs (TC), as percentage of imports, represented by the difference of *cif* (cost, insurance, and freight) and *fob* (free on board) values which are reported in *Direction of Trade Statistics Yearbook* of the International Monetary Fund, using $TC_{ijt} = (1 - EX_{jit} / IM_{ijt})$, where TC_{ijt} represents transaction costs between country i and j for the period t, IM_{ijt} stands for import (cif price) of country i from country j for the period t, and EX_{jit} denotes export (fob price) of country j to country i for the period t. Many measures have been constructed to measure transaction (transport) cost. The most straightforward measure in international trade is the difference between the so-called *cif* and *fob* quotations of trade. The difference between these two values is a measure of the cost of getting an item from the exporting country to the importing country. Here, Bangladesh's transaction costs do not cover the years 1997 and 2003, whereas the same for India is 2004–2006.
Source: Calculated by authors based on DOTS CD-ROM 2006, IMF.

[10] For example, one can refer to De (2007).

[11] Those countries that have removed the common barriers to trade have done well in raising per capita income by increasing trade. The removal of common borders between Germany and the Czech Republic and between the United States and Mexico has been noted to have had substantial effects on the predicted income per capita in the smaller countries. Income per capita in the Czech Republic and Mexico has gone up by 26% and 27%, respectively, presumably as a result of the economic integration (Redding and Venables, 2004).

Therefore, India and Bangladesh need to minimize trade transaction costs by removing visible and invisible barriers to trade. Countries can tackle transaction costs only through improved and integrated trading infrastructure, which is responsible for faster movement of goods and services across the countries. In a study, ADB urged South Asian countries to adopt a coordinated and focused commitment to resolve the physical and nonphysical barriers to trade and suggested to put in place a SAARC Regional Multimodal Transport System (2006c). Therefore, integration of trade and transportation networks has appeared as a priority objective of regional cooperation in South Asia. We next turn to a discussion of the current state of integration of transportation infrastructure of the two countries.

4. CURRENT STATE OF INTEGRATION IN TRANSPORTATION INFRASTRUCTURE

4.1. Overview of Transport Network

Road Network

Although there are doubts about the quality of roads, each square kilometer (km) of area is now served by one km of road in Bangladesh and India. Roads in Bangladesh and India have grown in prominence as a means for moving people and goods. India has an extensive 3.3 million km road network, making it one of the largest road networks in the world. National highways are the prime arterial routes, spanning about 58,112 km throughout India (2% of country's total road lengths) and catering to about 40% of total freight (Table 9). To mitigate the demand of rising road freight, the Indian government has been implementing its ambitious 13,146 km National Highway Development Project (NHDP) for the last few years.[12]

Table 9: Road and Rail Networks in 2003

Countries	Total Road Length (km)	Road Density (km per sq km of area)	Total Railway Length (km)	Share of Broad Gauge to Total Railway Length (%)	Railway Density (km per sq km of area)
Bangladesh	201,543	1.40	2,734	33	0.02
India	3,315,231	1.01	63,140	72	0.02

*Data not available.
Source: World Bank. 2005. *World Development Indicators 2005*. CD-ROM.

Rail Network

The railway network in South Asia is one of the largest railway systems in the world. It has an extensive network that is spread over 75,002 km, of which about 70% is broad gauge

[12] The National Highway Authority of India (NHAI), under the Ministry of Road Transport and Highways, Government of India, is implementing the National Highway Development Project (NHDP), comprising of the Golden Quadrilateral (5,846 km) and North–South and East–West Corridors (7,300 km), which entails expanding the existing two-lane highways to four/six lanes. In addition to the projects under the NHDP, the NHAI is also responsible for about 1,000 km of highways connecting major ports and on National Highways 8A, 24, 6, 45, and 27. About 2,093 km—consisting of the 1,408 km of Golden Quadrilateral (GQ), 557 km of North–South and East–West Corridors, 56 km of port connectivity and 153 km of other highway projects—have already been made into four lanes, and 5,133 km are under implementation. Financing the NHDP is based on funds from the Central Road Fund of Government of India; multilateral funding agencies such as the World Bank, Asian Development Bank, and Japan Bank for International Cooperation; and market borrowing and private sector contributions.

network. At present, about 30% of freight and 20% of passenger traffic are carried by railways in India whereas the same for the road sector are 70% and 80%, respectively. There is growing modal imbalance between railways and roadways in India (World Bank, 2002). Table 9 shows that the penetration of the railway network is much lower than that of the road sector in this region. India has a stable broad gauge railway network whereas that of Bangladesh is miserably poor, fragmented, and unstable. Bangladesh, with a total 2,734 km of railway network, has only 901 km of broad gauge track (only 33% of the total network), making it the least developed railway system in this region (CPD, 2003). Indian Railways is running losses primarily because of cross-subsidization and high nonperforming assets. The losses incurred on passenger services are cross-subsidized by profits earned through freight services and earnings from higher classes of passenger travel. In addition, cross-subsidization exists within the freight services since certain commodities such as salt, fruits, vegetables, etc. are being carried at a much lower cost of operations (Government of India, 2003).

Air Network

The civil aviation sector in India has made significant strides in coping with the growth of international and domestic traffic. However, the same is yet to begin in Nepal and Bangladesh. The aviation sector has been increasingly acknowledged to significantly contribute to the economic development of this region and is crucial for sustainable development of trade and tourism. A glance at Table 10 makes it obvious that airlines in the region under study have carried more passengers than freights in 2001, compared to those in 1991. In general, the region has witnessed a phenomenal rise in air traffic in recent years.

Table 10: Air Network

Countries	Air Freight Transported		Passengers Carried		Aircraft Departures	
	(million tons per km)		(no.)		(no.)	
	1991	2001	1991	2001	1991	2001
Bangladesh	99.40	169.60	1,020,800	1,450,000	13,800	6,500
India	493.10	517.70	10,717,400	17,272,100	117,500	214,300

km = kilometer, no. = number.
Source: World Bank. 2004. *World Development Indicators* 2004. CD-ROM.

Waterways have been found to be the cheapest means of moving passengers and goods in the remotest parts of Bangladesh and India. Today, though Bangladesh, India, and Nepal together have about 25,000 km of navigable waterways consisting of a variety of rivers, canals, backwaters, etc., only 10,740 km of the major rivers and 700 km of canals are suitable for operating mechanized crafts (Table 11). Due to lack of proper water transport infrastructure, organized inland water transport (IWT) services constitute a very small part of the total transport network in the region. IWT is still not the preferred mode of transport. Out of total freight traffic of about 900 million tons by all modes of surface transport in 2001–2002, IWT accounts for only 25 million tons and thereby accounts for only 3% of total freight traffic of the region under study. If absence of all-weather navigability is a cause of low freight traffic in IWT, then lack of awareness of its energy conservation potential is also a reason to blame.[13]

[13] Among South Asian countries, India's progress in inland water transport is notable, though Bangladesh has also considerably progressed in this sector. India established the Inland Waterways Authority of India (IWAI) in 1986 by promulgating the Inland Waterways Authority of India Act in 1985 to regulate and develop inland waterways for shipping and navigation purposes. At present, the IWAI is responsible for developing and maintaining India's three national waterways.

Table 11: Inland Water Transport and Port Networks in 2003

Countries	Length of Rivers	Navigable Length	Major Ports[a]	Sea Traffic[b]	Container
	(km)	(km)	(no.)	(million tons)	(MTEUs)
Bangladesh	2,950	1,890	2	18.86	1.50
India	16,000	6,000	25	489.57	3.89

km = kilometer, MTEU = million twenty equivalent units, no. = number.
[a] Excluding minor and intermediate ports.
[b] Including transshipment traffic.
Source: Compiled by authors from various secondary sources.

Inland Waterways Network

Movement of goods by the IWT system is yet to gain momentum in India. Against the share of IWT in the level of 8–20% of total inland cargo in countries like the United States of America, Netherlands, and People's Republic of China (PRC), the share of IWT in India and Bangladesh is around 0.1%. Although the movement of IWT traffic in bulk and break-bulk categories increased, the movement of containers, apart from some periodic trail runs, has not made any foray in the IWT sector in India.[14]

Maritime Network

India and Bangladesh are endowed with about 9,000 km of coastline, which is dotted with more than 250 ports. Although a large number of sea and river ports exist, only 27 are in operation and can be treated as prominent ports of the region. All these ports taken together handle over 500 million tons of cargo including over 5 million twenty equivalent units (TEUs) of container (see Table 11). Ports are a key component of infrastructure in India, where recent policy initiatives have ushered in new institutional arrangements, and have yielded results in terms of measurable outcomes such as delays at the ports. Most major ports in India have been partly privatized resulting in more efficient operation. Some of the world's leading port companies are also running container terminals in India.[15]

4.2 Overview of Overland Trade

Even though India and Bangladesh share a long international border and depend on transport infrastructure in a major way for their two-way trade, wide and strong interlinking between the two countries, particularly in the railway sector, is clearly absent.[16] Table 12 shows that trade between India and Bangladesh is carried out mostly by road, and a comparatively low percentage is carried out by sea and railway. Petrapole in West Bengal alone handles over 35% of India's exports to Bangladesh (2003–2004). Even though a major portion of India's merchandise exports to Bangladesh through the sea passes through the Jawaharlal Nehru port, exports passing the Vizag and Kakinada ports have considerably increased recently (Table 12).

[14] See De (2003).
[15] For instance, P&O Ports (now taken over by Dubai Ports International), from its regional headquarters located in Mumbai, are running a couple of container terminals in India such as at the Jawarlal Nehru, Chennai, and Mundra ports (all in India). A few more terminals are run by noted private port companies like the Port of Singapore Authority, Maersk Sealand, and Dubai Port International (all in India).
[16] For example, while India and Bangladesh have an agreement in the IWT sector, the agreement is yet to be used to its full potential. In road and railway sectors, harmonization in standards is clearly absent, resulting in increased trade transaction costs between the two countries. Thus, a well-crafted coordinated approach by sharing each other's experiences and pooling common resources would contribute to facilitating trade and transport between India and Bangladesh.

Table 12: India's Exports to Bangladesh: Modal Shares

Ports	Share in Exports		LCSs	Mode	Share in Exports	
	1996–1997	2003–2004			1996–1997	2003–2004
	(%)				(%)	
Sea Routes			Land Routes			
Mumbai	9.30	1.30	Petrapole	Road	56.60	36.20
Jawaharlal Nehru	3.30	6.30	Ranaghat/Gede	Rail	5.20	11.50
Chennai	1.90	2.50	Radhikapur	Rail	0.60	1.90
Tuticorin	1.80	1.50	Hilli	Road	2.90	5.90
Vizag	0.70	2.80	Mohedipur	Road	4.30	6.90
Kakinada	0.90	2.50	Dawki	Road	0.40	0.90

LCS = land customs station.
Source: Calculated based on data provided by DGCIS, Kolkata.

Land Border Routes

Land (border) routes are generally convenient and popular for trading between neighboring countries. This is particularly so for countries sharing a long border, as in the case of India and Bangladesh. The border between India and Bangladesh is basically porous. At present, there are officially 35 land customs stations (LCSs) through which India's trade with Bangladesh is carried out. Among these 35 LCSs, Petrapole (in West Bengal) in the road sector and Gede (in West Bengal) in the railway sector are the two noted ones, which together share over 70% of the India–Bangladesh border trade (Table 13). However, there are six recognized overland border routes (roads) between India's North Eastern Region (NER) and Bangladesh. Dawki in Meghalaya is the oldest LCS and mainly traffics coal from the NER to Bangladesh. In 2004–2005, India exported $12.30 million worth of goods to Bangladesh through Dwaki, whereas the import from Bangladesh through Dwaki was negligible.[17] However, a few more LCSs in the NER, such as Borsora and Shella Bazar (both in Meghalaya) and Sutakandi and Ghasuapara (both in Assam), are increasingly handling India's overland exports to Bangladesh through the NER.

[17] According to Chief Commission, Central Excise and Customs, Government of India, Shillong, Meghalaya.

Table 13: Modal Composition of India's Overland Trade with Bangladesh in 2004–2005*

LCSs	Mode	Share in Overland	
		Export	Import
		(%)	
Petrapole	Road	55.85	88.47
Changrabanda	Road	4.31	3.74
Hilli	Road	9.78	0.22
Mohedipur	Road	8.53	0.60
Ghojadanga	Road	3.49	2.80
Ranaghat/Gede	Rail	13.41	0.00
Kolkata Port (TT Shed)	Rail	0.86	2.96
Singabad	Rail	3.01	1.22
Radhikapur	Rail	0.76	0.00

LCS = land customs station
* Considers only West Bengal corridors.
Source: Chief Commission, Central Excise and Customs, Government of India, Kolkata.

Trade through Petrapole (India)–Benapole (Bangladesh)

Of the road route, the heaviest movement (in value terms) is via Petrapole (India)–Benapole (Bangladesh). Road traffic to Bangladesh via Petrapole converges at Bangaon, situated 4 km from the international border at Petrapole. The access roads including the national highway to Bangaon are mostly narrow and single-lane roads. At Bangaon, trucks have to cross narrow roads passing through residential and market areas. Consequently, trucks heavily congest the areas in and around Bangaon and Petrapole. Quite often 1,400–1,500 trucks queue to enter Bangladesh. This congestion is perceived as an encroachment on civil amenities. In fact, the chaotic conditions prevailing have resulted in diversion of traffic to other LCSs like Hilli, Mohedipur, Changrabandha, and to a newly opened LCS at Bhojadanga, south of Petrapole. In addition, the movement beyond Benapole is slow and time consuming, and subject to the vagaries of weather. Currently, cargoes brought in by Indian trucks and delivered to Benapole are moved by overland routes by Bangladeshi trucks to Goaland–Achira ferry point on Padma River. From here, the trucks are ferried across the river to move on to Dhaka and other destinations in the eastern sector of Bangladesh. However, the commissioning of the rail-cum-road bridge over river Jamuna, along with the strengthening of access roads and roads in the bridge, has eased the congestion of road movement and facilitated road penetration into the more developed and populous eastern part of Bangladesh. Table 14 shows the LCS-wise (West Bengal–Bangladesh corridors) value of exports and imports between India and Bangladesh in recent years.

Table 14: India's Exports and Imports to/from Bangladesh through LCSs in West Bengal in 2004–2005

LCSs	Mode	Export	Import
		($ million)	
Petrapole	Road	808.80	56.50
Changrabanda	Road	62.48	2.39
Hilli	Road	141.59	0.14
Mohedipur	Road	123.60	0.38
Ghojadanga	Road	50.54	1.79
Ranaghat/Gede	Rail	194.15	0.00
Kolkata Port (TT Shed)	Rail	12.51	1.89
Singabad	Rail	43.54	0.78
Radhikapur	Rail	10.94	0.00
Total		1,448.16	63.86

LCS = land customs station
Source: Chief Commission, Central Excise and Customs, Government of India, Kolkata.

Table 15 provides the commodity composition of India's overland exports to Bangladesh through land borders. Some of the important items, which have grown in India's exports basket and are increasingly traded formally, are onions and garlic; rice; cotton woven articles (code 5209), including denims; synthetic organic coloring materials; unwrought aluminum; other materials of iron and steel; pneumatic tires; chassis of cars with engines; and radio receivers and video apparatus. These items have shown rising trends in India's export basket. Some important items, including cement, sugar, cotton yarn, coal briquettes, and wheat, do not figure in Table 15. However, most of these items did not show very rapid growth except perhaps wheat and coal briquettes.

Table 16 shows major Indian imports from Bangladesh through LCSs, located in West Bengal. Out of the three major Bangladesh exports to India, two—Hilsa and other fishes, and raw jute—come entirely from land routes. The other major export is ammonia anhydrous or aqueous solution, which is exported to India through the sea.

Table 15: India's Top 10 Export Items to Bangladesh through Land Borders*

No.	LCSs	Commodity	1996–1997	2003–2004	Change
			Share (%)**		
1	Hilli and Petrapole	Onions and garlic	57.30	44.60	Fall
2	Hilli and Petrapole	Oranges – fresh and dried	93.40	12.40	Fall
3	Hilli, Petrapole, and Radhikapur	Rice	22.50	43.90	Rise
4	Petrapole	Synthetic organic coloring mat	100.00	100.00	No change
5	Petrapole	New pneumatic tires	53.70	86.00	Rise
6	Petrapole	Woven cotton[$]	36.50	92.00	Rise
7	Petrapole	Other articles of iron and steel	13.00	97.20	Rise
8	Petrapole	Unwrought aluminum	88.00	76.20	Fall
9	Petrapole	Radio receivers, video apparatus	95.00	97.00	Rise
10	Petrapole	Chassis fitted with engine	99.50	95.30	Fall

LCS = land customs station.
* Considers only West Bengal LCSs. Commodity-wise data not available for Ranaghat-Gede LCS, which also carries a good deal of border trade, especially cement, sugar, etc.
** Percentage of total exports.
[$] Represents 5209 code.
Source: Calculated based on data provided by DGCIS, Kolkata.

Table 16: India's Overland Imports from Bangladesh through Land Borders*

No	LCSs	Commodity	1996–1997	2003–2004	Change
			Share (%)**		
1	Petrapole	Hilsa and other fish	100.00	100.00	No change
2	Petrapole	Raw jute	100.00	100.00	
3	Petrapole	Betel nuts	0.00	100.00	Rise

LCS = land customs station.
* Considers only West Bengal LCSs. Commodity-wise data not available for Ranaghat-Gede LCS, which also carries a good deal of border trade, especially cement, sugar, etc.
** Percentage of total exports.
Source: Calculated based on data provided by DGCIS, Kolkata.

Overland exports from India to Bangladesh are well diversified. In terms of trade value, Petrapole LCS in road and Ranaghat/Gede LCS in rail carry the bulk of India's overland exports to Bangladesh. The two major transport corridors that serve India's international trade with Bangladesh are those that connect Dhaka with Kolkata and Jawaharlal Nehru with Chittagong Port. Other transport corridors that serve India's international trade with Bangladesh handle much smaller volumes.

5. EMERGING ISSUES AND WAYS FORWARD

India and Bangladesh, with their geographical contiguity, have a great potential for strengthening their trading instruments. Over the years, India and Bangladesh (and other South Asian countries) have taken a number of initiatives to remove "invisible" trade barriers such as elimination of tariffs and nontariff restrictions at the unilateral, bilateral, and regional levels (Pandian, 2002; RIS, 2004). Despite these initiatives, the intra-South Asia trade is not growing at the expected pace. Therefore, the region's "visible" trade barriers should be removed by strengthening and interlinking the region's trading instruments. Even South

Asian countries depend on transport infrastructure in a major way but interlinked networks in the region are clearly absent. While India and Bangladesh have cooperation in IWT, that between India and Pakistan is not yet formulated. Similarly, in the road sector, although Bangladesh, India, and Nepal have a treaty for allowing free flow of trade through a tiny transit corridor at Phulbari (in West Bengal) between Bangladesh and Nepal, for unknown reasons this route is not even functioning properly. In today's world where competitiveness is the key factor for a country's or a region's success or failure, strengthening bilateral or regional trading infrastructure networks will pave the way for faster enhancement of bilateral and regional integration, thereby promoting international competitiveness. To improve the competitiveness, India and Bangladesh have to cooperate with each other and share their experiences in building and operating cross-country infrastructure facilities such as rail, road, airport, port, and waterways. For example, cooperation in road networks would help Nepal and Bhutan access ports of Bangladesh; similarly, India, through Bangladesh, can access its NER.[18] Again, incurring huge road transportation costs, some of the break-bulk items generated in Northern India, such as cycle parts, newsprints, and spare parts, are exported to Bangladesh by roads through border-trade points. A major part of denim and related items, originating in Western India, are also transported overland to Bangladesh. Ideally, this entire cargo can easily be transported by rail at lower costs to Bangladesh if an integrated and harmonized railway network is in place between the two countries. Cooperation in the emerging issues in the infrastructure sector is thus very important for integrating the South Asian economy.

India has a large legal and illicit border trade with Bangladesh. However, there are poor or no-border-infrastructure facilities for cross-border trade. Much of North East India's trade with Bangladesh is informal.

With respect to bilateral negotiations on trade and broader economic relations between India and Bangladesh, several outstanding issues persist. These include Bangladesh's highly unfavorable trade balance, links from Bangladesh to Nepal, and road or rail connections from West Bengal to the NER through Bangladesh.

These new issues also have the potential of strengthening bilateral relations because of substantial complementarities that characterize the economic structures of India and Bangladesh. Bangladesh could become an economic hub in Eastern South Asia[19] on the backdrop of India's growing integration with Southeast and East Asia, provided the country attempts to widen its cooperation with India. In a sense, these synergies now being rejuvenated center around a shared vision toward economic development. In view of the above discussion, the following important areas of bilateral and regional cooperation need special attention from the governments and policymakers of this region.

(i) Improvement of Road Networks

In the last decade, roads in South Asia have prominently grown as a means for moving people and goods. With a 3.82 million km road network in 2002, South Asian countries share 10% of the world's road network. Even though 1 km of road now serves each square kilometer of surface area in South Asia, a portion of the roads in some countries such as Bangladesh, India, and Sri Lanka are still of dubious quality, particularly those stretches of roads leading to borders in South Asia. To date, no expressway immediately starts from or finishes at the border customs points between India and Bangladesh. Goods have to travel extra miles and people have to expend time, expense, and effort to get access to highways. Therefore, India and Bangladesh have to extend their highways up to the border custom

[18] Refer, for example, to RIS (2007).

[19] Known as South Asian Growth Quadrangle (SAGQ). See, for instance, Dubey et al. (1999) for the framework of SAGQ.

points instead of ending them at pre-border checkpoints. Also, road standards and carriageway capacity in South Asia require further investigation.[20]An interministerial regional advisory committee, taking representatives from road and highway ministries of South Asian countries, will not only look after the region's road standard convergence but will also be involved in the planning and execution of new road projects. The best example to follow is the ASEAN, where a similar arrangement has helped LDCs in ASEAN improve their road networks, thereby raising intra-regional trade. There is a need to develop international highway systems that will link the national grids of Bangladesh, People's Republic of China (PRC), India, Myanmar, and Thailand, with an emphasis on a multimodal approach that will include railways, ports, and air services. This will enhance cross-border land trade in the region.

(ii) Improvement of Railway Networks

The railway network in South Asia is one of the largest railway systems in the world. Before 1947, railways historically played an important integrating role in the social and economic development in South Asia. The penetration of the railway network in South Asia is much lower than that of the road sector. India and Pakistan have a stable, broad gauge railway network whereas that of Bangladesh is miserably poor, fragmented, and unstable.[21] In Bangladesh, only 33% of the total railway network is broad gauge, making it the least developed railway system in South Asia (CPD, 2003). Nepal, Bhutan, and Maldives still do not have a railway system.

Except for some periodic trial runs, exports and importers were never encouraged to use the railway system for their trade in South Asia. For instance, no container train runs between India and Pakistan, and between India and Bangladesh. As a matter of fact, trade in bulk items between India and Pakistan and India and Bangladesh is not gaining the expected momentum. Had an adequate system been established in the region, the cost of intra-regional movement of goods such as cement, logs, food grains, and salt would have been cheaper.

Unlike the European Union (EU), where a uninterrupted and uniform railway network alone carries the majority of intra-regional merchandise and people, South Asia suffers from lack of harmonization of railway standards. In general, the India–Bangladesh border trade occurs through roadways, and very negligible freight is carried by railways. A cross-country railway network is completely missing between India and Bangladesh, though it was fairly established before 1947. While the railway gauge between India and Pakistan is similar to some extent, such convergence is missing between India and Bangladesh. Mutual cooperation among these countries will pave the way for a "one-track one-system" in South Asia.

South Asian countries need to follow the EU model in setting up a uniform railway network. India, with its vast experience, can play a major role in totally overhauling the railway systems in South Asia in general and Bangladesh in particular, and extending railway networks up to all border customs points.[22] An inter-ministerial committee of railway ministries of South Asian countries can be formed to look after the development of railway networks in the region. The recent Asian Development Bank (ADB) initiative to strengthen the Bangladesh railway system is a step toward strengthening the South Asian railway

[20] To some extent, this is covered under the Asian Highway project of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), to which most South Asian countries are signatories.

[21] The Sri Lankan broad gauge railway system, badly damaged by the 2004 tsunami, also needs a complete overhaul.

[22] Countries in South Asia are signatories to UNESCAP's Trans-Asian Railway system, which does not cover all the border customs points among South Asian countries.

network. The program will help reduce costs for users and increase Bangladesh's competitiveness for investment.

(iii) Liberalizing Aviation Services

Liberalizing international transport services (such as air transport services) fosters international trade in much the same way tariff liberalization does. The civil aviation sector in South Asia has made significant strides in coping with the growth of international and domestic traffic. The aviation sector significantly contributes to the economic development of this region and is crucial for sustainable development of trade and tourism.

The domestic liberalization of the civil aviation sector has allowed the private sector to run more airlines in South Asia, thus attracting more passengers to fly within the national territory and beyond. Even private airlines from India, Nepal, and Bangladesh are now allowed to operate in South Asia and abroad. Airlines in South Asia carried more passengers than freights in 2001 compared to 1991 (De, 2005; RIS, 2004). The rise in passenger traffic is phenomenal in small countries like Bhutan and the Maldives. However, there are still bottlenecks in aviation infrastructure, particularly in busy airports in the region (e.g., Delhi, Mumbai, Dhaka), which have to be fully revamped. Moreover, there could be direct flights connecting India's NER with its neighbor countries such as Bangladesh, Bhutan, Myanmar, and Nepal. National air carriers may also be given additional access rights to fly to major cities in South Asia and abroad. Adequate capacity will ensure development of trade and tourism among South Asian countries. Liberal regional rights should also be given to improve international operations at the NER to promote trade and tourism.

To encourage South Asian tourists to travel freely within South Asia, private airlines may be encouraged to fly to major tourist destinations in the region. Private airlines operating in South Asia, such as India's Jet Airways in Sri Lanka and Nepal, Nepal's Cosmic Air in India, and Bangladesh's GMG Airlines in India, could be an example of such successful initiative, but the frequencies of their flights have to be escalated. Similarly, private airlines of Nepal and Bangladesh should be encouraged to fly into NER's popular tourist destinations, which will promote tourism, thereby generating employment. Such a network will enhance tourism activities in the region. For example, people in the NER may want to enjoy the beaches of the Cox Bazar in Bangladesh and people in Bangladesh may be interested in visiting Darjeeling in India. Therefore, a much more vigorous open skies policy will foster "people-to-people" contact and enhance service trade in the region. Mutual cooperation should also be initiated for upgrading airports, without which the open skies policy will not generate the desired results.

The tourism and trade sectors should also be acknowledged to be closely linked to the civil aviation sector. Therefore, it is important that plans for airport infrastructure and air services take into account the requirements of these sectors. A multimodal approach should be used for planning to ensure better connectivity. Efforts should also be made to make it possible to issue visas to passengers from South Asia on their arrival at the airport. Airlines in South Asia should introduce electronic data interchange, interlinking trade agencies, customs, and immigration for faster, efficient trade transactions. Private sector participation in cargo handling for increasing competition and improved services should be welcomed.

(iv) Linking Inland Waterways

Waterways have been found to be the cheapest means of moving passengers and goods in the remotest parts of South Asia. Today, though Bangladesh, India, Nepal, Pakistan, and Sri Lanka together have about 25,000 km of navigable waterways consisting of a variety of rivers, canals, backwaters, etc., only 10,740 km in the major rivers and 700 km of canals are suitable for operating mechanized crafts. Because of lack of proper water transport

infrastructure, organized IWT services in South Asia constitute a very small part of the total transport network of the region. IWT is still not the preferred mode of transport in South Asia. Out of total freight traffic of about 900 million tons by all modes of surface transport in 2001–2002, IWT accounts for only 25 million tons and thereby accounts for only 3% of total South Asian freight traffic. If the absence of all-weather navigability is a cause of low freight traffic in IWT, then lack of awareness of its energy conservation potential is also a reason to blame.

There is movement of goods from India to Bangladesh by the Central Inland Water Transport Corporation (CIWTC) and Bangladesh Inland Waterways Authority (BIWA). The movement of goods between India and Bangladesh through IWT from 1998 to 2003 is given in Table 17. In 2002–2003, about 16,230 tons of goods were exported to Bangladesh from India through IWT. Indian exports to Bangladesh through IWT are comprised of coal, rice, white cement, tires, steel coil, and project goods. Figure 2 shows the logistics network of IWT. Although the movement of IWT traffic in bulk and break-bulk categories increased, the movement of containers, apart from some periodic trail runs, has not made any foray in the IWT in South Asia (De, 2003).

Table 17: Movement of Cargo between India and Bangladesh in IWT*

(a) Volume of Traffic

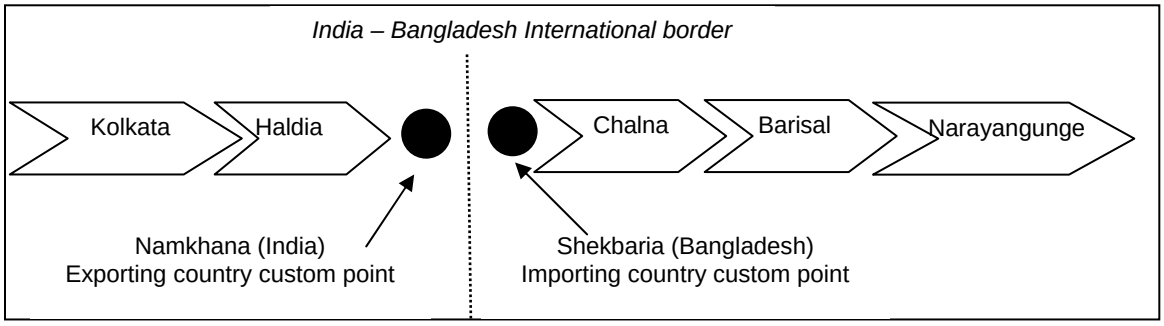
Year	India to Bangladesh	Bangladesh to India
	(Tons)	
1998–1999	10,313	X
1999–2000	7,096	3,000
2000–2001	14,231	2,000
2001–2002	15,950	1,600
2002–2003	16,230	1,450

(b) Type of Cargo Moved

Year	India to Bangladesh	Bangladesh to India
2002–2003	Coal, rice, cement, project goods, tire, steel coil, etc.	Marble, paper, plant and machinery, jute, etc.

IWT = inland water transport, X = data not available.
* The movement of cargoes between Kolkata and Bangladesh by Central Inland Water Transport Corporation (CIWTC), including shipment of coal from Assam to Bangladesh, started in 2000–2001.
Sources: Statistics of Inland Water Transport, various issues, Ministry of Shipping, Government of India and CIWTC, Kolkata.

Figure 2: Logistic Chain in Merchandise Trade by Inland Water Transport



Source: De, 2006.

India's National Waterways 2 (NW 2),[23] cutting across Bangladesh, links the NER with West Bengal. The absence of all-weather navigation facilities, coupled with inadequate water depth, obstructs high-speed vessels from passing through national waterways, so these waterways can make little contribution to merchandise trade between the two countries. Since Bangladesh and India's West Bengal and NER are well covered by inland waterways, the requirement is interlinking major waterways for navigation, and bringing new waterways within the India–Bangladesh Waterways Treaty to enhance the bulk movement of goods in the most remote corners where even roads and railways cannot penetrate.

(v) Liberalizing Maritime Facilities

Ports are a key infrastructure component in South Asia, where recent policy initiatives have ushered in new institutional arrangements, and have yielded results in terms of measurable outcomes such as delays at the ports. Most busy ports in South Asia—such as Jawaharlal Nehru (in India), Karachi (in Pakistan), and Colombo (in Sri Lanka)—have been partly privatized, resulting in more efficient operation. Some of the world's leading port companies are also running container terminals in Pakistan, Sri Lanka, and India, but not in Bangladesh (World Bank, 2002).

A good amount of Indian exports to Bangladesh pass through sea ports. Table 18 shows the traffic of India's exports to Bangladesh for 1998–1999 and 2003–2004 as regards the different ports. Jawaharlal Nehru, Kandla, and Vizag are the top three ports, handling most of India's merchandise export to Bangladesh through the sea. Exports from Mumbai and Jawaharlal Nehru ports take longer, compared to Chennai and Vizag (Table 19). India exported $84.06 million worth of iron and steel to Bangladesh in 2004–2005, a major portion of which was exported through the Jawaharlal Nehru port. In addition, shipments of electrical goods, spare parts, machinery, chemical products, denim goods, etc. enter Bangladesh (Chittagong) through Jawaharlal Nehru, Kandla, Chennai, and Haldia ports. There is also a liner service, started from Vizag to Chittagong.[24]

Table 18: India's Trade (All Commodities) with Bangladesh through Ports

Ports	1998–1999			2003–2004		
	Export	Import	Total	Export	Import	Total
	(in '000 tons)					
Kandla	184	0	184	170	8	178
Mumbai	77	30	107	60	7	67
Jawaharlal Nehru	160	67	227	215	32	247
Mormugao	0	0	0	0	0	0
New Mangalore	0	0	0	0	0	0
Cochin	1	0	1	8	0	8
Tuticorin	5	0	5	20	5	25
Chennai	0	0	0	27	10	37
Vizag	42	2	44	48	12	60
Paradip	23	0	23	23	4	27
Kolkata	30	12	42	43	18	61
Haldia	0	0	0	29	11	40
Total	522	111	633	647	107	750

Source: Ministry of Shipping, Government of India.

[23] Specifically, NW 2 links Ganga with Bramaputra through Bangladesh.
[24] Coastal Express, a liner services operated by Seaways Shipping, was launched in June 2005 between Vizag Port (VCTPL) and Chittagong Port.

Table 19: Sailing Time in Containerized Trade between India and Bangladesh

Sea Routes	Days
Mumbai–Colombo–Chittagong	12
Mumbai–Singapore–Chittagong	19
Jawaharlal Nehru–Colombo–Chittagong	11
Jawaharlal Nehru–Singapore–Chittagong	18
Chennai–Colombo–Chittagong	9
Vizag–Colombo–Chittagong	9
Vizag–Singapore–Chittagong	14
Kolkata–Singapore–Chittagong	12

Source: Compiled from Global Maritime Atlas, 2005.

Because most intra-regional trade among South Asian countries is routed through seaports due to rising handling costs at the ports, coupled with operational inefficiency, intra-regional trade in South Asia is not picking up at the desired level. The year-wise movement of containers between Kolkata, Haldia, and Chittagong ports is low. Because of the absence of direct calls between the ports of India and Bangladesh, containers shipped to Bangladesh from the West Indian ports are normally transshipped at Colombo and/or Singapore thereby imposing additional costs to the users and hampering intra-regional trade growth. Sharing the Jawaharlal Nehru Port could be a way of encouraging private–public partnership for developing an efficient port network in Bangladesh.

The NER is near Bangladesh's Chittagong Port. No progress has been made to give access to the NER to use the Chittagong Port for international and coastal trade, despite clear indications of transshipment benefits in favor of Bangladesh. The cost of noncooperation in the maritime sector is likely to be destructive. When India saw Bangladesh's noncommittal attitude toward NER's transshipment facility, India took new initiatives to link the NER with ports in Myanmar. Therefore, a quick decision to open up the Chittagong Port for NER's trade will pave the way in strengthening bilateral relations between the two countries, failing which cooperation momentum will slow down.

(vi) Behind the Border Issues

Trade services (or trade facilitation) are at the forefront of the development agenda; they are a critical element of any strategy to fight poverty.[25] Today's trade issues go beyond the traditional mechanisms of tariffs and quotas and include "behind-the-border" issues, such as the role of infrastructure and governance in supporting a well-functioning trading economy. Some studies have indicated that the cost of trade facilitation, specifically trade documentation and procedures, is high, between 4–7% of the value of goods shipped. In 1996, the Asia-Pacific Economic Cooperation (APEC) group conducted a study that highlighted the gain from effective trade facilitation. For example, the gains from streamlining customs procedures exceeded those resulting from trade liberation such as tariff reduction. Gains from effective trade facilitation accounted for about 0.26% of real GDP of APEC members (about $45 billion), while the gains from trade liberalization would be 0.14% of real GDP (about $23 billion) (UNESCAP, 2005). An empirical study by Cudmore and Whalley

[25] In general, trade facilitation has no official definition. According to the World Trade Organization, trade facilitation is the specification and harmonization of international trade procedures, where trade procedures are the activities, practices, and formalities involved in collecting, presenting, communicating, and processing data required for the movement of goods in international trade. These procedures are required for government agencies, importers, and exporters to monitor and control the movement of goods, performance of services, and the payment for such goods and services. Additionally, according to UNESCAP (2005), they also allow for the collection of statistics for policy formulation, market research, and operational purposes.

(2004) finds that reducing border delays is critical for trade liberalization to have a positive impact on welfare.

The customs offices in India and Bangladesh still require excessive documentation, especially for imports, which must be submitted in hard copy.[26] A list of the principal documents that must be submitted at prominent customs points is shown in Table 20. It shows that an Indian exporter to Bangladesh has to obtain 330 signatures on 17 documents at several stages. While most of these are standard for international trade, the government tends 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 protect 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.[27] Because of this complex, lethargic, and primitive procedure, pilferage continues to rise. This often changes the composition and direction of trade. Procedural complexities very often work as deterrents to India–Bangladesh trade.

[26] Improvements in customs procedures have truly reduced the amount of informal payments needed for clearing cargo. Even so, underhanded transactions at the border to clear exports remain high. The actual amount is negotiated between the shippers and the customs agent, with both agreeing on the amount per shipment that will be reimbursed without an invoice and is therefore available to pay customs officials for expediting cargo clearance.

[27] This process reached a level of absurdity by requiring that for multimodal movements by ocean transport, both the forwarder's house bill and the marine bill of lading must be negotiable. This implies that two documents of ownership for the same cargo exist.

Table 20: Documents Required for Clearance of Goods

No	At Landport (Petrapole)	At Seaport (NSICT)	At Airport (Delhi)
1	Customs export declaration/Consignment note (5)	Shipping bill (6)	Shipping bill (6)
2	Bill of lading (5)	Packing list (6)	Export invoice (6)
3	Letter of credit (5)	Commercial invoice (6)	Packing list (6)
4	Packing list (4)	Export invoice (6)	Tax invoice cum delivery paper (6)
5	Exchange control declaration (GR) form (6)	Certificate of origin (4)	Exchange control declaration (GR) form (6)
6	AR4/AR4A form (8)	Exchange declaration (4)	Airway bill (8)
7	ETC license (2)	Bill of lading (6)	Carting order from airways (4)
8	QC certificate (2)	Certificate of export realization (4)	
9	Letter of indent (4)	ARE1 form (8)	
10	Certificate of origin (4)	Certificate of insurance (4)	
11	Certificate of insurance (4)	Contract form (4)	
12	DEPB original	Letter of credit (6)	
13	DEPB declaration (4)	Shipping advice (6)	
14	Export invoice (4)	FEMA declaration form (4)	
15	Certificate of export realization (4)		
16	License forwarding letter (DEPB – post export) (4)		
17	Certificate of insurance (4)		
	Total documents = 17 No of copies = 67 No of signatures = 330	Total documents = 14 No of copies = 74 No of signatures = 296	Total documents = 7 No of copies = 42 No of signatures = 168

DEPB = Duty Entitled Pass Book, NSICT = Nava Sheva International Container Terminal, QC = Quality Control.
Source: De, 2006.

Inadequate trade facilitation measures are prominent in the India–Bangladesh border trade. In the road sector, a trade consignment takes a minimum of 4–6 days for clearance from the Indian border to the Bangladesh side, and vice versa (Table 21). The present legal arrangement between India and Bangladesh prohibits Indian or Bangladeshi vehicles to cross each other's border for delivering the consignment to the ultimate user(s). In summary, the aggregate delay (loss of time) pertaining to all three phases of exports turn out to be over 4 days for a single shipment (Table 21). Box 2 captures field level observations which amply demonstrate why the border crossing of goods between India and Bangladesh take so much time.

Table 21: Transaction Time in Overland Export to Bangladesh from India

Phase	Particulars	Ideal Time (Hours)	Actual Time* (Hours)
Phase 1	Loading at Kolkata	3.50	5.00
Phase 2	Transportation, Kolkata to Petrapole	2.80	3.60
Phase 3	Time at Petrapole	23.60	78.40
Phase 4	Unloading at Benapole	2.50	10.00
Phase 5	Crossing over border while returning from Bangladesh	1.50	5.10
Cumulative	Total	33.90	102.10

* The above estimation is based on interviews conducted in Kolkata, Petrapole, and Delhi with 28 exporters, traders, and transporters.
Source: De, 2006.

Box 2: India–Bangladesh Trade: Field Level Observations

The idea to export starts once the exporter receives an order. Subsequently, the Letter of Credit (LC) Export (and series of traders down the line) prepares the export consignment. A clearing agent is contacted. The clearing agent takes one day to prepare the export document and another day to get the documents cleared by the customs authority. Until this stage, the exporter does not face any problem; nor does the clearing agent need to pay any bribes as the exporter gives complete documents to avoid future problems.

Next, the consignments are loaded. The trip to the border usually starts at around 12:00 am from Kolkata. Trucks usually reach Bongaon from Kolkata at around 4:00 pm, taking 16 hours to travel about 100 km. On their way, trucks usually move slowly because they are heavily loaded.

The trucks have to wait at the warehouse at Bongaon, usually for 3–4 days, to get the entry serial number from the Bongaon municipality. This serial number is provided at the Petrapole Central Warehouse. However, some local influential people at Bongaon take over the delivery responsibility from these outside transport companies on a contract basis, taking a holding charge of around 10 days and managing to export the consignment within 6–7 days. They make a profit by moving the goods out of the warehouse in fewer days than paid for.

There is also unofficial, private parking at Petrapole called “Makkel Parking” and “Laxmi Parking” for the rate of Rs500–1,000 per day per truck. These private parking companies get priority in getting serial numbers for the export queue by bribing the concerned authorities at different layers of the delivery process. After getting the serial number from Bongaon, the trucks move to the Central Warehouse at Petrapole close to the border gate. Here the trucks are usually detained for 10–12 days for the whole process, taking into account the intake capability of Bangladesh.

The Central Warehouse at Petrapole has the capacity of around 700 trucks. This warehouse is safe for the consignments. The export documents are cleared from the customs at this point. Before entering the warehouse, the drivers have to pay around Rs500–1,000 to local people who claim to be collecting parking charges; this is totally illegal. There are local collections in different names such as the Petrapole Border People Welfare Fund. Next, at the Central Warehouse, the inspector or superintendent of customs gives the consignee an allotment number, which is the serial number for the trucks to be allowed to cross the border.

After crossing the border, trucks have to undergo the export formalities in Bangladesh, where the Bangladesh customs officials check the export papers and give the required clearance. Here, the trucks are detained for 2–4 days, since checking each export paper and export duty receipt (for which money has to be deposited in the bank) takes time.

Bangladesh Customs charges extra illegal money ranging from Rs500 to Rs1,000 to give the clearance. The amount depends on the customs officer assigned and the type of goods involved.

Source: De (2006).

At present, an exporter incurs about Rs10,100 ($230) as transaction costs at the border (Table 22), which in ideal conditions should be around Rs2,900 ($66). If we leave out transportation costs (Rs2,800), the remaining 72% of estimated total transaction costs (Rs7,300) are nonetheless very high compared to any such costs witnessed elsewhere. Therefore, all associated costs (non-transportation-related costs) alone carry more than 72% of estimated total transaction costs, and these associated costs are acting as the major deterrent to India–Bangladesh official overland trade.

Table 22: Transaction Costs[a]

Particulars	Ideal Costs		Actual Costs*	
	Rs	$	Rs	$
Transportation costs[b]	1,200	27	2,800	64
Associated costs[c]	1,000	23	1,700	39
Transit costs[d]	700	16	2,800	64
Border crossing costs[e]	0	0	1,200	20
Other costs[f]	0	0	1,600	36
Total	2,900	66	10,100	230

[a] Considers a fully loaded 26-ton truck.
[b] Cost of transportation from Kolkata to Petrapole.
[c] Considers parking at Kalitola and Central Warehousing Corporation (CWC) parking plots.
[d] Considers costs in transit (in our case, 4 days) in terms of additional parking fees, food for an average of two persons, etc.
[e] Considers the costs to cross the border and unload at Benapole.
[f] Counts bribes to officials and other people.
* Based on interviews conducted in Kolkata, Petrapole, and Delhi with 28 exporters, traders, and transporters.
Source: De, 2006.

(vii) Use of Electronic Data Interchange System at the Border

Customs checks and clearances are an intrinsic element of any cross-border movement of goods. In recent years, significant reforms have been carried out in the related procedures. These include simplified documentation, pre-shipment inspection, and simplified tariff based on the Harmonized Code (at 8 digits). The customs department has also computerized documentation and provided electronic data interchange (EDI) connectivity. Banks, airlines, shipping lines, and customs house agents have also been linked with the network. It is claimed that more than 90% of the transactions have been brought under EDI facilities. Unfortunately, India–Bangladesh overland trade appears to have been bypassed. The facilities have been provided only at one location, Petrapole. But even here, the system has not been operational for the last couple of months. Hence, all transactions are being carried out manually.

The existing EDI system 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. Thus, many shortcomings associated with documentation continue to exist under the present EDI system.

(viii) Improving Export Competitiveness in the Textile and Clothing/Garments Industry

Under the World Trade Organization agreement, Europe and America will lift the textile import quotas this year. Thus, South Asia will witness both a prospect to exceed quota levels as well as a risk of loss of market share in the highly competitive market. The greatest competitor in the garments industry will be the PRC. However, the recent initiative taken by the PRC in removing the dollar peg for the yuan will ease the competition in the garment exports of South Asian countries as the production cost of Chinese goods will increase. This will increase export competitiveness as a result of the Chinese currency's revaluation.

As the garments industry is highly labor intensive, further investment, growth, and strengthening of this sector will significantly reduce poverty in South Asia. Garments

constitute a major portion of the exports of South Asian countries, such as Bangladesh, India, Nepal, Pakistan, and Sri Lanka. Small and medium-sized firms largely dominate the South Asian textile industry, including those of India and Bangladesh. These firms are not ready to face the post-quota competition in the world market posed by the PRC. The major constraints that the garments industry faces include poor infrastructure and restrictive labor laws.

The Indian textile and garments industry is large, with a labor force of 30 million; the further development of this industry will help reduce poverty in India. It is a big producer of cotton and man-made fibers. Its labor costs are cheaper than the PRC's. If labor productivity can be enhanced, it has the potential of becoming a vertically integrated textiles powerhouse like the PRC. At present, India accounts for only 5% of American textile imports, compared with the PRC's fast-growing 19%.

The manufacture of ready-made garments is Bangladesh's largest export industry and the most demanding in terms of fast, low-cost, and reliable logistics. Manufacturers produce mostly low-value garments similar to those produced in the PRC and Viet Nam. In 2001–2002, the value of exports was $4.86 billion versus only $0.064 billion a decade earlier. Despite a slight drop in 2002–2003, the industry reported an increase to about $5.25 billion in 2003–2004.

The end of the most-favored nation agreement will introduce instability in the export market for ready-made garments. The market has already factored in the end of the agreement as Bangladesh exporters have been forced to accept price cuts, said to average about 15%, to maintain market share. Having accepted this reduction, they have been able to export a significantly larger volume than last year. But the large garments buyers are expected to continue adjusting their portfolio of buyers over the next two years. They have already developed a strategy of diversifying sources of supply by using multiple contracts within a country and in more than one country. With this strategy, they can adjust the amount produced by individual suppliers on an annual basis depending on operating conditions and costs. During the next two years, as the market seeks a new equilibrium, Bangladesh should solidify its position as a reliable, low-cost supplier of quality goods. To match future price pressures, producers should identify new sources of savings in time and cost. Since recent savings have been achieved in production activities, it will now be necessary to focus on logistics.

Over time, South Asia has improved its position in the world textile and apparel market with a growing market share. For instance, clothing exports from South Asia, as a share of world exports, have increased from 5% in 1990 to 7% in 2003 (Table 23). India (41%) and Bangladesh (27%) accounted for greater shares of South Asia's clothing exports, while Pakistan and Sri Lanka accounted for 17% and 15%, respectively, in 2003 (Kelegama and Weeraratne, 2005). Conversely, in the textile trade, India (50%) and Pakistan (45%) accounted for a majority of exports, while Bangladesh and Sri Lanka accounted for negligible shares.

Table 23: Textile and Apparel Exports from South Asia

Region	Textile		Apparel	
	1990	2003	1990	2003
	$ million			
World	104,350	169,420	108,130	225,940
Bangladesh	343	505	643	4,326
India	2,180	6,510	2,530	6,459
Nepal	82	107	50	226
Pakistan	2,663	5,811	1,014	2,710
Sri Lanka	25	1	638	2,513
Share of South Asia in World (%)	5	8	5	7

Source: Kelegama and Weeraratne, 2005.

Among other South Asian exporters, only Pakistan has a big raw material base. Pakistan's industry witnessed a strong investment of $4 billion in the four years up to the lifting of quotas and, therefore, it is well posed for growth. Bangladesh's ready-made garments sector grew rapidly over the years and currently accounts for about 77.55% of the total export of the country. Export volume of the sector is about $6.07 billion in fiscal year 2004–2005. On the other hand, Bangladesh does not have a vertically integrated garments industry and, therefore, does not have any natural comparative advantage. However, its labor costs are cheaper compared to those of India and Pakistan.

There is a need for cross-border investment and integration of the textile and garments industry in Bangladesh and India to build more vertically integrated and competitive garments companies.

(ix) Renovating Land Customs Stations

Land customs stations (LCSs) are the gateways for the transit of human beings, goods, and services between India and Bangladesh. Most India–Bangladesh traders and service providers use LCSs. Unfortunately, not a single LCS between India and Bangladesh offers services that are of international standard. The physical environment at LCSs is anything but conducive for trade and services. Several measures have already been taken for upgrading LCSs in the NER, but effects are still limited.[28] At the time of this writing, 11 LCSs, as shown in Table 24, have been prioritized for development of infrastructure,[29] out of which the

[28] The Government of India continues to give high priority to developing trade and exports in the NER. Following the announcement made by the Prime Minister as regards measures for developing exports from the NER in Shillong on 21–22 January 2000, an Export Development Fund has been set up with the objective of using the resources for the development of exports from the NER. An empowered committee has been set up under the chairmanship of the Additional Secretary, Infrastructure, Department of Commerce, Government of India for approving projects to be funded from the Export Development Fund. The funds are released to the Agricultural and Processed Food Products Export Development Authority, which has been nominated as the nodal agency for the scheme. Since adequate infrastructure is an essential requirement for sustained growth of trade, the Government of India has been helping the NER states create infrastructure under the Assistance to States for Development of Export Infrastructure and other activities scheme. In 2004–2005, an amount of Rs360 million, constituting 10% of the outlay under the scheme, has been allocated for the NER (Government of India, 2005). On the other hand, it is also true that paucity of funds restricts the state governments in the NER to invest in LCSs but very often they expose their inability to develop LCSs, indicating that bilateral trade is a subject of the central government according to the Indian Constitution.

[29] It has been decided that the requirement of funds for developing infrastructure at 11 LCSs would be met from the central component of ASIDE. RITES Ltd. has been asked to conduct a study on the development of infrastructure at Borsorah and Agartala LCS in NER. An interministerial committee for developing LCSs has been constituted under the chairmanship of the Additional Secretary (Infrastructure), Department of Commerce, with representatives from the Ministry of External Affairs; Ministries of Home Affairs, Railways, Road Transport and Highways, Telecommunications; Department of Revenue; Reserve Bank of India; Central Warehousing

development of four LCSs—namely, Moreh, Sutarkandi, Dawki, and Zokhawthar—were given the highest priority.[30]

The bordering states of India and Bangladesh should quickly acquire the needed expertise on the complex issues of trade facilitation so they can negotiate more effectively and ensure that agreements serve their objective of reducing poverty.

Table 24: LCSs under Renovation/Development in NER

No.	Land Custom Station	State	Neighboring Country
1	Agartala	Tripura	Bangladesh
2	Borsorah	Meghalaya	
3	Dawki	Meghalaya	
4	Demagiri	Mizoram	
5	Ghasuapara	Meghalaya	
6	Karimganj Steamer Ghat	Assam	
7	Moreh	Manipur	Myanmar
8	Old Raghana Bazar	Tripura	Bangladesh
9	Srimantapur	Tripura	
10	Sutarkhandi	Tripura	
11	Zokhawthar (Champai)	Mizoram	Myanmar

LCS = land customs station, NER = North Eastern Region.
Sources: Government of India, 2005.

(x) Sanitary and Phytosanitary Measures

India and Bangladesh, being WTO members, have to fulfill certain obligations posed by the WTO.[31] As per the WTO Agreement on the Application of Sanitary and Phytosanitary (SPS) Measures, members are obliged to provide at least 60 days' notice[32] to other members, through the WTO, for comments before adopting SPS measures. SPS measures are a formality in trade among developed and between developed and developing (and LDC) countries. However, such measures are yet to take shape in trade among developing and least developed countries. The case of trade between India and Bangladesh is no exception. Table 25 shows the number of such notifications that India and Bangladesh made. Even though India reported 35 cases to the WTO, no single case has been found where India

Corporation; National Highways Authority of India; Border Roads Organization; and the concerned state governments. A coordination committee at each LCS has also been constituted under the Deputy Commissioner of Customs/Assistant Commissioner of Customs for deliberating on local issues connected with day-to-day functioning of the station (Government of India, 2005).

[30] The Central Warehousing Corporation (CWC) has conducted studies on the requirement of infrastructure facilities at Moreh (Manipur), Dawki (Meghalaya), and Sutarkandi (Assam) for improving LCSs. The CWC is the appointed agency for the development of Moreh, Dawki, and Sutarkandi LCSs, whereas the Zokhawthar (Mizoram) LCS will be developed by the Borders Road Organisation (BRO) in cooperation with the Mizoram Government (Government of India, 2005).

[31] Measures are guided or regulated by the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) under the current multilateral trading system. The SPS Agreement encourages members to harmonize their SPS measures based on international standards, guidelines, and recommendations developed by the relevant international organizations, including the Codex Alimentarius Commission (Codex) for food-safety-related issues; the International Office of Epizooties, for animal-health-related issues; and the International Plant Protection Convention. The SPS Agreement also permits (Article 3.3) members to adopt SPS measures that result in a higher level of SPS protection than would be achieved by measures based on the relevant international standards, guidelines, or recommendations, if there is a scientific justification.

[32] Only those SPS measures which are not in line with the standards/recommendations/guidelines of the relevant international organizations, or in those areas where no standards/recommendations/guidelines exist, or which may have significant trade effect are subject to such notice. This is known as transparency obligation under the SPS Agreement.

invoked the WTO route on SPS measures for its exports/imports from Bangladesh; nor has Bangladesh enforced its exporters to get conformity on SPS measures while exporting to India.

Table 25: Number of SPS notifications made to the WTO

Country	Number of Notifications*	As a Percentage of Total Notifications made to the WTO
Bangladesh	0.00	0.00
India	35.00	0.84

SPS = sanitary and phytosanitary, WTO = World Trade Organization.
* Including addenda, corrigenda, and revisions from 1995 until December 2005. Actual numbers may differ marginally.
Source: Compiled by the author using information from the WTO website.

While standard and safety-related requirements in agricultural and food-related products are extremely important, there are instances when these standards and related requirements have been put in place by countries with the implicit objective of protecting their respective domestic industry. In view of SAFTA, SPS measures are likely to gain importance in South Asia. SAFTA members have already taken some initiatives. For example, Geneva-based SGS India, a global player in commercial verification and monitoring services in international trade, has taken over pre-shipment inspection jobs for all Indian exports to Bangladesh.[33]

6. CONCLUSION

South Asian economies are aiming to undertake trade facilitation measures that will greatly reduce current physical and nonphysical barriers to transportation and transit—by means of both visible infrastructure (such as multimodal corridors and terminals) and invisible infrastructure (such as reformed policies, procedures, and regulations). Due to lack of adequate research on trade facilitation in South Asia, not much information is available on the existing profile of trade facilitation measures (both at the border and the capital) in South Asia. This is a research area that needs special attention from policymakers and researchers in South Asia.

With an increased emphasis on administrative reform, governance, and security, the need for an efficient and effective customs administration is felt urgently. Customs is an intrinsic element of any cross-border movement of goods and services, and yields significant influence on the national economy. It is the unique point where the supply chain and routine access to trade intelligence and data meet. Beyond facilitating trade, customs performs other important functions such as revenue collection and protection against dangerous goods. The time taken for clearance of goods has an impact on the competitiveness of countries in the global context.

One of the major reasons for the high transaction costs of India's exports to Bangladesh is cumbersome and complex cross-border trading procedures. Complex requirements in cross-border trade increase the possibility of corruption. For example, at the key border-crossing point between India and Bangladesh, as many as 1,500 trucks queue on both sides of the border with waiting times varying between one and five days to complete documentation requirements. Expediting customs clearance procedures reduces the discretionary power of customs officials, thus reducing the scope for corruption. An efficient, friendly, and corruption-free customs can help boost trade and investment. The goods carried by road from India are subjected to transshipment at the border. Similarly, goods carried by rail are subjected to inland transshipment. As far as maritime transport is concerned, there are no

[33] Stated in *The Hindu Businessline* dated 17 March 2005.

direct sailings. The transshipments at the land customs stations impose serious impediments. In fact, they determine the level and the efficiency of international trade between the two countries. The position is further compounded by lack of harmonization of technical standards for rolling stock and infrastructure, both road and rail.

Considering this region's emergence as a free trade area from 2006 onward, reform in the transport sector will help South Asian countries assess potential benefits of moving to a deregularized transport sector under a liberal trading regime when the transport sector is one of the prime instruments for promoting intra-regional trade. Hence, countries in this region should take immediate steps in not only integrating their transport system but also in reforming the entire system so that the transport system functions as the engine of growth rather than as a trade deterrent. The Government of Bangladesh should try to remove the structural asymmetries in the rail and maritime transportation sector, which are found to be quite significant.

There exist severe transport and transaction cost barriers for effective cross-border trade between India and Bangladesh. These two countries, along with other South Asian partners, should develop a regional transportation and transit system that offers efficient transportation options and low transaction costs that are competitive with those found elsewhere. As the "full life" of many new products becomes shorter and shorter with emerging production networks across borders, and the spatial distribution of supply and demand points changes rapidly in such a system, what is transported, how it is transported, and to and from where it is transported are all rapidly changing. For admission to this dynamic global system, a region needs a transportation and transit system that offers an exporter short time spans between order and delivery, and predictable and reliable deliveries. To plug into this wealth-creating machine, India and Bangladesh must develop a transportation and transit facilitation system that will greatly reduce current physical and nonphysical barriers to transportation and transit by means of both physical infrastructure (such as multimodal corridors and terminals) and nonphysical infrastructure (reformed policies and procedures, regulations, and incentives for efficient transportation and transit).

India, being large, has a special role to play in deepening bilateral economic cooperation with Bangladesh through the transport infrastructure sector. First, India may invest in inland and border infrastructure as a response to serious bottlenecks taking place due to an expansion of the domestic private sector. This, however, would lead to a passive strategy of transport infrastructure following private investment. Another option is that the governments of India and Bangladesh use transport infrastructure as an engine for bilateral and regional development. This implies an active strategy where transport infrastructure is leading and inducing private investment. Although both approaches have some pros and cons, many countries have used the latter approach to attract private investments vis-à-vis regional development.

Trade liberalization is a necessary condition, but not a sufficient one. To achieve any substantial progress in bilateral and regional trade among the countries in South Asia, the utmost priority should be given to developing infrastructure facilities. Added to this, complementary policy reform in the transport sector, accompanied by improved procedural and operational efficiency, is essential to support trade liberalization in South Asia.

Finally, subregional or bilateral regional cooperation will contribute, through trade creation, to structural reforms in participating countries. In turn, these reforms will facilitate regional or multilateral trading systems and economic cooperation. Therefore, bilateral economic cooperation between Bangladesh and India certainly has a great potential to enhance South Asian regional cooperation.

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