

# **South Asia—Intraregional Cooperation: The Way Forward**

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## Abbreviations

ADB	Asian Development Bank
AFTA	ASEAN Free Trade Agreement
APIBM	Afghanistan-Pakistan-India-Bangladesh–Myanmar corridor
APTA	Asia Pacific Trade Agreement
ASEAN	Association of Southeast Asian Nations
ASYCUDA	Automated Systems for Customs Data
BIMSTEC	Bay of Bengal Initiative for Multi-sectoral Technical and Economic Cooperation
CGE	computable general equilibrium
EU	European Union
FDI	foreign direct investment
FTA	free trade agreement/free trade area
FY	fiscal year
GDP	gross domestic product
GTAP	Global Trade Analysis Project
ICRIER	Indian Council for Research in International Economic Relations
ICT	information and communications technology
IMF	International Monetary Fund
ISFTA	India–Sri Lanka Free Trade Agreement
LDC	least developed country
MFN	most favored nation
MOU	memorandum of understanding
MRA	mutual recognition agreements
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development
PSFTA	Pakistan Sri Lanka Free Trade Agreement
PPP	public–private partnership
SAARC	South Asian Association for Regional Cooperation
SAFTA	South Asian Free Trade Agreement
SASEC	South Asian Sub regional Economic Cooperation
SME	small and medium enterprise
SPS	sanitary and phytosanitary standards
TBT	technical barriers to trade
TCI	Trade Complementarity Index
UNCTAD	United Nations Conference on Trade and Development
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
US	United States
WTO	World Trade Organization

## Executive Summary

1. Mutual distrust embedded in historical political disputes has dogged the South Asian Association for Regional Cooperation (SAARC) since its inception 25 years ago, leaving SAARC's goals distant and the region's full trade potential untapped. That it took 10 years to reach a preferential tariff agreement and another 10 to create the South Asian Free Trade Agreement (SAFTA) has left South Asia the least integrated region in the world.
2. The region's exports concentrate disproportionately on just a few regions and products. However, in recent years the importance of South Asian markets as consumers or providers of raw material inputs has increased, especially the smaller economies such as Sri Lanka or less-developed countries such as Afghanistan, Bangladesh, Nepal, and Sri Lanka. For example Sri Lanka's exports to India after the inception of the India–Sri Lanka Free Trade Agreement increased from \$58 million in 2000 to \$489 million in 2005.
3. One of the lessons of the recent global economic turmoil is the need to exploit South Asia's common historical and linguistic links and similarity of cultures, bureaucratic, and administrative systems. Indeed, given the economic troubles of the Western countries, South Asia has little choice but to boost intraregional trade and to quickly shift toward a new engine of growth—East Asia—for trade and investment capital. The prospects for prolonged malaise in the US and EU mean the region must also look elsewhere for foreign direct investment (FDI) and for markets for its export surpluses. Moreover, through greater economic integration, the region needs to tap its demographic dividend—its teeming, youthful populations eager for economic opportunity—to fully realize its growth potential.
4. The trade creating and welfare enhancing effects for each SAARC member will depend upon the characteristics of each economy. These include population size, economic strengths, and production capacities, its trade with the rest of the world, its own trade, and its fiscal and financial regimes. It also depends on whether its trading partners are members of more than one trading arrangement and whether the treatments therein accorded are similar or more preferential in nature. Studies based on existing trade flow patterns suggest that the smaller, weaker economies have more to gain from trade liberalization in general than from liberalization under SAFTA, in that the more efficient and competitive suppliers from outside the region would be disadvantaged.
5. By extrapolating outcomes on the basis of existing patterns of trade, the economic reasons for integration may not look compelling in that the net welfare gains for the smaller SAARC economies do not look that attractive. However, the results predicted may change if we look at developments in a dynamic sense. While there could be trade diversion in some products, regional cooperation could facilitate trade creation in others. Moreover, if we consider the benefits that could accrue to weaker economies—for example, as they operate as hubs for transit trade and gain opportunities for vertical integration through the subdivision of manufacturing processes—the effects could change dramatically.
6. Other advantages of regional exports include their beneficial impact upon the efficiency of domestic markets and in providing access to markets that are expected to grow faster because of demographic advantages.
7. Presently, SAFTA's distinguishing features—substantial negative lists, tariff concessions restricted to a relatively narrow range of products, high non-tariff barriers, complicated and stringent product specific rules of origin and the exclusion of services, capital mobility, and the movement of least-skilled labor to levels prevailing in other regional groupings—make the pact ineffectual in many respects. These factors, and fears about asymmetry in gains (largely in India's favor), have influenced existing trade patterns and prevented the region from realizing its potential for inclusive growth—offered by the vertical

integration of production structures—over an extended period. Industrialization patterns can be changed as countries specialize through the sub-division of production processes, using modern technology and the opportunities for trade provided by lower transportation costs and improved communication, physical infrastructure, and systems.

8. In the last 30 years, production sharing or outsourcing networks enabled FDI to pare production processes into smaller portions that were distributed among locations depending upon their contribution to profitability, and were drivers of economic growth. However, the lengthening of production supply chains is likely to become a less potent force for growth in the world. A host of factors are forcing manufacturers to locate production closer either to low-cost emerging economies with large populations (Bangladesh, India, and Pakistan) or to consumer/end-user markets (Eastern and Central Europe for the European Union [EU] or Mexico and the Caribbean for the United States [US]). These include the permanent rise in transportation costs (amid higher oil prices),<sup>1</sup> the steady decline of the US dollar, issues of culture and language, increasing scrutiny in developed countries of developing countries' tax incentives for multinational corporations, slower G3 growth, and increasingly complex customer demands.

9. In the area of communications, meanwhile, greater computing power, memory, storage, and software capacity has substantially expanded the scope for the division of labor globally, enabling South Asia to consider an export-oriented model based on services. Indeed, it can do so rather like manufactured exports did in the Southeast Asia countries in recent decades. Where traditionally, goods were seen as tradable and services as non-tradable, thanks to major advances in information technology (IT), they can now be traded across time and geographical barriers. As such, as services become tradable they can be included as contributing components in the comparative advantage of developing countries, allowing the export of labor-intensive services (such as typing, programming, call centers, and so on).

10. South Asia can exploit its position as a supplier of services, helped by India's credentials globally as a lead supplier of IT and computer-based digital services and position as a global hub for outsourcing of information and communications services. Other countries in the region, particularly Pakistan and Bangladesh, can latch on to Indian suppliers by offering to become part of the supply chain of services, providing lower level skills at competitive rates, also factoring in the advantage of young labor forces with relative proficiency in the English language (owing to a common history of British colonialism). Buyers of these services will also be able to reduce their risk through diversification of sources, without necessarily increasing their costs, doing so by opting for less sophisticated services and processes from India's neighbors.

11. For these reasons, and also because Southeast Asia is gradually moving up the value chain into higher value products and services, South Asia will have to look more towards the East and to regional markets for maintaining high growth rates. Developing a strategy that aims to exploit such opportunities is also important because South Asia, being traditionally dependent on remittances from the Middle East, is likely to experience a sharp increase in the number of migrants, some of whom, especially professional and skilled labor, may be absorbed into the economies of Japan and the Republic of Korea, whose populations are ageing.

12. However, for greater intra-industry trade, investment in production capacities will be required across borders. The role of investment in creating supply capacities will play a critical role in catalyzing the investment-trade nexus in integration through inflows of FDI and

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<sup>1</sup> This will weaken the financial case for outsourcing the production of goods for which the transportation costs are high.

in diverting investments of Indian entrepreneurs away from the rest of the world towards the region.

13. These efforts will have to be complemented by the removal of non-tariff barriers, appropriate policy, procedural and related interventions to facilitate trade, investments to enhance physical connectivity, and the availability of energy by harnessing indigenous resources and greater financial integration to facilitate smooth operation of the entire supply chain.

14. By up-scaling road and rail links, modifying rail meter gauges to broad gauge, and creating and improving warehousing facilities, or appropriately locating transshipment cargo and locomotive exchanges, trade and investment flows can be facilitated. A good example of such surface transport could be the development of an Afghanistan-Pakistan-India-Bangladesh-Myanmar transport corridor that could connect South Asia to Central Asia and East Asia. The provision and upgrading of quality physical infrastructure will speed up the integration of lagging subregions with more prosperous areas, facilitating inclusive growth in the region.

15. Additionally, there is a mismatch in the region between energy resource distribution and the growth in energy demand. Relatively smaller economies like Nepal and Bhutan have energy resources well in excess of their energy demand, while energy demand in India or Pakistan outstrips respective domestic supplies. Two potential markets for energy trade and investment could serve South Asia—a western and an eastern market. To the west, Central Asia and Iran could sell electricity and gas to Afghanistan and Pakistan and possibly to India, while to the east, Nepal, Bhutan and perhaps even Afghanistan, could export hydropower to India. Myanmar could also export natural gas and hydropower to India.

16. Improved access to regional financial markets will help expand and diversify sources of funds, meanwhile, which will in turn require deeper financial sectors with financing available at a reasonable cost. Intraregional sources of funding will help reduce the volatility of capital flows in that those sources would be better informed about political and related conditions in neighboring countries. This factor will help check strong and prompt reactions that induce greater fluctuations in the exchange rate.

17. In the area of food security, meanwhile, many South Asian countries face similar issues of availability and nutritional security, which could partly be addressed by a long-term response revolving around the sharing of information, knowledge on best agricultural practices and technologies, joint ventures for food security, and research on less input-intensive crop varieties, enhancing yields and disease resistant crops, and adaptation to climate change.

18. South Asia should also jointly address issues such as climate change, environmental degradation, and health hazards through control of communicable and infectious diseases, such as dengue, severe acute respiratory syndrome, and avian influenza.

19. Various issues relevant to water resources also need to be resolved through a regional approach. The region is water-stressed and the harmful effects of global warming and disruptive weather will impact the Himalayas' water reserve function, for example. Water shortages are affecting distribution in Bangladesh, India, and Pakistan, compounding tension in the region.

20. Riparian concerns could be addressed by agreements on information sharing about river flows, conservation of irrigation water, flood control, watershed management and storage, by helping to control deforestation, and by controlling and treating industrial effluent waste.



21. The Asian Development Bank (ADB), recognizing the importance of regional cooperation and integration in unlocking the region's vast growth potential and in reducing poverty, has played a vital role in regional cooperation initiatives under three related banners. These are SAARC, the South Asia Subregional Economic Cooperation (SASEC)<sup>2</sup> and the Bay of Bengal Initiative for Multi-sectoral Technical and Economic Cooperation (BIMSTEC).<sup>3</sup> Alongside inclusive economic growth and environmentally sustainable growth, regional integration is one of the three (main) agendas of Strategy 2020 for promoting high, sustained and inclusive development, in South Asia and around the region (ADB 2008). In the longer term, regional cooperation and integration will enable South Asia to play a more effective role in wider Asian integration.

22. ADB, as an honest and respected broker, can play an important role in encouraging regional integration and physical connectivity. By fostering cross-border trading links through construction of road and rail networks and the development of trade corridors connecting remote and isolated areas, ADB can reinforce inclusive growth by encouraging the participation of the region's private investors as well as attracting FDI into the region.

23. The agenda certainly looks ambitious, but South Asia has little choice given the challenging global environment and the head start of the rest of Asia. South Asia's leaders (political, bureaucratic, and military) need to re-order strategies and priorities if their professed goals of inclusive growth are to be realized. To this end, greater awareness of the advantages of regional cooperation and the role of a collective regional vision in economic progress and poverty reduction may enable SAARC members to focus on convergence rather than divergence.

24. Even with strong political and bureaucratic commitments, the way forward would necessarily be a phased one that breaks the agenda into discrete components of implementation, setting clear milestones and targets, and giving less-developed economies more time to adjust to greater competition with deeper tariff cuts and reduction in the size of sensitive lists. Additionally, India must lead "from the front" and provide the needed stimulus to action. It has the advantage of economic size (almost 80% of regional gross domestic product) and geography, sharing borders with almost all countries in the region. It could offer unilateral concessions to realize the benefits envisaged for SAARC in much the same way that France and Germany did in Europe, or Malaysia and Indonesia, and later Singapore, did in the Association of Southeast Asian Nations.<sup>4</sup> This would help build political constituencies for integration in other countries of the region.

25. Nonetheless, SAARC's 25-year experience makes clear that the association's agenda is overshadowed by difficult India-Pakistan relations; unless SAARC has a mechanism to resolve bilateral conflicts or is politically empowered<sup>5</sup> to facilitate peaceful dispute settlement, it may not be possible to achieve meaningful progress in mutual cooperation.

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<sup>2</sup> Bangladesh, Bhutan, India and Nepal established SASEC in 2001, with ADB's support, to promote the subregion's economic cooperation in the priority areas, including transport, tourism, and information and communications technology.

<sup>3</sup> BIMSTEC, which excludes Afghanistan, Maldives, and Pakistan, could become an alternative basis for South Asian integration and could be extended to include Maldives, Cambodia, Malaysia, Lao PDR, Viet Nam, and Singapore.

<sup>4</sup> India has unilaterally opted to shift from a regime based on strict reciprocity to asymmetric reciprocity. It has on its own offered concessions to smaller and lesser developed countries in the region without demanding anything in return.

<sup>5</sup> The principle inserted in the SAARC Charter prohibits discussion of bilateral political issues.

## I. INTRODUCTION

1. With a quarter of the world's population (almost 30% of which lives on less than \$1 per day), 3% of its gross domestic product (GDP), 2% of exports, and about 1.7% of foreign direct investment (FDI), South Asia is also one of the world's least integrated regions. In 2008, a meager 4% of trade was intraregional, totaling some \$525 billion.

2. Like globalization, regional economic cooperation and integration should spur economic growth by expanding markets and trade opportunities. Given the advantages of proximity, cultural familiarity, and lower transport costs, the rapid expansion of intraregional trade in all developing regions of the world in the past two decades is not surprising.

3. Studies on the EU show that a higher growth rate in the integrated areas resulted from the geographical agglomeration of related activities (Martin and Ottaviano 1996), with investments in infrastructure helping to reduce transaction costs (Das and Sambamusty 2006). A number of studies, using the gravity model, support the claim that regional trade agreements create and expand trade (for example, Gosh. and Yamarik 2004).

4. South Asia has been late in adopting the concept of regional integration. Past conflicts and present-day tensions remain a hindrance, such that the immense potential for regional integration—and its subsequent trade, investment, and growth opportunities—remains untapped. Despite gradual liberalization over the years, inward looking and bureaucratic mindsets have not hindered more significant change of the trading relationship among South Asian countries under the South Asian Association for Regional Cooperation (SAARC).

5. However, the environment is slowly changing in support of greater trade openness and regional cooperation, spurred by a world-wide inclination to trade on favorable terms bilaterally or as part of a regional group, rather than on a most-favored nation basis under the World Trade Organization (WTO). There is growing realization of (i) the significance of intraregional trade in enhancing growth; (ii) that by being better integrated within itself, South Asia will find it easier to integrate with the rest of the world; and (iii) that the advantages of geographical proximity and familiarity—if not homogeneity, of cultures and similarity of public sector institutions and technologies supporting their production structures—will create gains from greater opportunities for trade. Admittedly, however, the process is burdened by uncertainties ranging from the lack of clarity at the conceptual level on the extent of the benefits, to the weaknesses at the policy and procedural level that would bedevil the achievement of these gains. Other issues include the structural constraints reflected in the limited degree of complementarity of production structures, the lack of the requisite capital as a resource for critical investments, and the probable uneven distribution of the gains from greater integration, with the larger economies benefitting more.

6. Although studies show that where production structures are similar, gains from trade are likely to be modest, given the different stages of sophistication of production structures in each (of the region's countries) there is significant opportunity for specialization. Similarity of production structures may offer opportunities for intra-industry trade (as experienced internationally), indicating improved potential for intraregional trade and opportunities for exploiting economies of scale and diversification of exports. Not only will such an export-oriented environment improve the efficiency of domestic production, it will make the comparative advantages and complementarities of such an approach easier to discern, in this broader dynamic sense, than they were when production structures were viewed as relatively static in nature.

7. Not only will regional cooperation enable South Asia to play a more effective role in wider Asia, the amalgamation process itself is likely to achieve greater success if it is

embraced as a critical component of a more extended pan-Asian cooperation and viewed as an important building block in the objective of globalization. To this end, the inclusion of Japan and the People's Republic of China as observers in SAARC is an encouraging development and should be broadened to include other powerful members of ASEAN+3, such as the Republic of Korea.<sup>6</sup>

8. This study, commissioned by ADB and drawing heavily on existing literature, is another initiative to showcase the benefits of regional integration and to recommend strategies for overcoming the many hurdles.

9. It is structured as follows: Section II gives a snapshot of the key economic, social and demographic indicators in South Asia compared to other regions, showing how South Asia is lagging other regions, despite its tremendous growth potential.

10. Section III discusses the various tariff and non-tariff barriers that have restricted trade and investment integration in South Asia. It analyzes existing tariff structures and the resulting trade restrictiveness, each country's sensitive lists (which identify subsectors not eligible for the tariff concessions offered under free trade agreements), and tariff liberalization programs (which aim to phase out tariff reductions as part of multilateral and bilateral agreements) being pursued under the South Asian Free Trade Area (SAFTA) and other bilateral free trade agreements. It also reviews the literature on informal trade and trade via third countries as a result of these tariff and non-tariff barriers. It then presents the results of different studies on the potential gains in trade expansion from the phasing out of tariff barriers. The chapter also analyzes both explicit and implicit non-tariff barriers to trade, the latter identified in the literature under trade facilitation. It reviews trade between the two largest economies of the South Asian region—Pakistan and India—as a case study to identify the transaction costs of trade in the region.

11. Section IV discusses the potential for enhancing intraregional trade for goods and services in South Asia. By employing insights from “New Trade Theory”, alongside data on the improved trade complementarity index for major trading partners in South Asia, the section explores the scope for enhancing intraregional trade by developing intra-industry trade and the comparative advantage at different stages of production. It extends the discussion on trade potential to include trade in services.

12. It argues that goods were traditionally seen as tradables and services as non-tradables, and that services were not tradable across time and space, but that new information technologies (IT) have changed this. The IT revolution allows them to be traded across geographical and time barriers. And as tradable goods, services can be included as components in the comparative advantage of developing countries, particularly the export of labor-intensive services (typing, programming, call centers, and so on).

13. Information and communications technologies have substantially expanded the scope for the global division of labor, enabling South Asia to consider an export-oriented model based on services, rather like the role played by manufactured exports in the development of Southeast Asia.

14. South Asia is in a good position to exploit its position as a supplier of services because India has already established its credentials as a lead supplier of IT/computer based digital services globally and has become a global hub for outsourcing of information and telecommunication services. Other countries in the region, particularly Pakistan and Bangladesh, can latch on to the Indian suppliers by offering to become part of the supply

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<sup>6</sup> ASEAN+3 includes the 10 members of ASEAN plus the People's Republic of China, Japan, and the Republic of Korea.

chain of services, providing lower level skills at competitive rates. Additionally, the advantage of young labor forces with relative proficiency in English (owing to a common history of British colonialism), and the stress placed in the region on higher education, can enable Indian entrepreneurs to play the same role as Japanese businesses did in Southeast Asia. Buyers of these services will also be able to reduce their risk through diversification of sources, without necessarily increasing their costs, by opting for less sophisticated services and processes from India's neighbors.

15. The gains from increased intraregional trade in goods and services in South Asia, covered in earlier chapters would not be fully realized unless complemented by greater intraregional and extra-regional FDI.

16. Section V reviews the economic rationale for increasing regional investment integration in South Asia in the context of the successful experience of Southeast Asian countries. It also discusses the barriers that limit intraregional and extra-regional FDI in South Asia. These include institutional barriers (the costs of doing business and the absence of harmonized frameworks on competition and infrastructure), infrastructural barriers (inadequate access to reliable and reasonably priced infrastructural services), financial barriers (controls on banking and the movement of capital) and barriers specific to intraregional investment. Following the ASEAN example, the section argues that there is potential for deepening investment integration in South Asia through greater vertical intra-industry investment in key industries where there is potential for product fragmentation. The section showcases the textile and automobile sectors, which have substantial potential for spurring intra-industry production, exploiting the advantages provided by the division of labor on the basis of core-competence.

17. Section VI identifies the infrastructural deficits in South Asia that stymie regional economic integration. Maximizing the gains of regional integration entails more than just removing tariff and para-tariff barriers to trade. Better infrastructure that improves market access (through roads, railways, ports) and ensures a reliable supply of cheap energy will have to complement trade facilitation and investment integration efforts to reap the gains of regional economic integration. Infrastructure that links major regional transport and energy corridors, and the simplification of documentation and procedures at border points, is critical to maximizing the benefits of intraregional integration in trade and investment.

18. The section analyzes the potential for investment in critical energy infrastructure by discussing the mismatch between energy resource distribution and the growth in demand for energy in the region. The smaller economies in the region, Nepal and Bhutan, have energy resources well in excess of their energy demand, while in India and Pakistan, energy demand outstrips domestic supplies. By identifying the complementarities in energy trade between countries, the section describes a potential western energy market (in which Central Asia and Iran would sell electricity and gas to Afghanistan and Pakistan and possibly to India) and an eastern energy market (in which Nepal, Bhutan and perhaps even Afghanistan) would export hydropower to India, while Myanmar could export natural gas and hydropower to India.

19. Section VI then discusses the economic rationale and investment potential in the upgrading of cross-border transportation infrastructure. It reviews the major reasons South Asian transportation costs have remained prohibitively high compared to other regions, classifying the main factors as hardware (physical infrastructure) and software (customs clearance and other facilitation measures).

20. It identifies the key project areas in the transportation sector based on ADB's *SAARC Regional Multimodal Transport Study* of 2007 (ADB 2007), which outlines the potential for win-win cooperation to spur intraregional and inter-regional trade in South Asia and

suggests ways to eliminate the constraints posed by poor transport infrastructure, allowing not just greater regional integration, but also links with other subregions that can help create a seamless Asia.

21. Section VII analyzes the potential for regional cooperation and integration to create inclusive growth in South Asia by reducing income disparities and growing imbalances, both between countries and among regions within individual countries. The section highlights how regional integration can help isolated and lagging landlocked and border districts in South Asia integrate with leading economic regions. To achieve this end, the role of investment in cross-border infrastructure and its impact on poverty alleviation and the integration of isolated subregions are discussed in detail.

22. Section VIII develops policy, procedural, and related recommendations to enhance intraregional trade in goods and services and to reinforce the process of integration through extensions in the scope of regional agreements to include investment.

23. Section IX discusses the role of ADB in facilitating greater regional cooperation.

## II. SOUTH ASIA IN PERSPECTIVE—REGIONAL COMPARATIVE ANALYSIS OF KEY INDICATORS

24. The South Asian region—Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka—has historically followed import substitution and inward-looking policies. But the last two decades have seen a gradual re-orientation of the outlook, as greater trade and investment openness have accelerated economic growth. The region grew an average of 7.8% annually during 2003–2008, second in pace only to East Asia and contributing to significant poverty reduction (ADB 2009). And it is still home to 40% of the world's poor, with 29.5% of South Asia's population living on less than \$1 a day.

**Table 2.1 Trade as a Percentage of GDP**

	1980	1994	2008
East Asia	27.6	26.0	57.4
Southeast Asia	57.6	94.9	133.8
South Asia	16.3	19.1	41.5
Europe	46.3	42.7	65.6

Sources: IMF, Direction of Trade Statistics 2009 and World Economic Outlook

25. Although the South Asian economies are now increasingly looking to exploit the benefits of greater market openness, their performance lags other regions. Table 2.1 shows that while trade rose from 19.1% of GDP in 1994 to 41.5% in 2008, it remained well below East Asia's (57.4%), Europe's (65.6%) and Southeast Asia's (133.8%). South Asian economies exhibit a similarly tepid performance when it comes to trade and investment integration within the region and with the rest of the world—intraregional trade as a percentage of GDP for the SAARC region stands at a low 2% compared to 40% for Southeast Asia. FDI inflows to South Asia in 2007 amounted to \$29.6 billion—a paltry 2.1% of GDP and a mere 1.6% of world FDI. South Asia's FDI share is not even an eighth of East Asia's \$214.2 billion (UNCTAD 2008a).

26. South Asian countries have also fared poorly on growth and poverty reduction in comparison with other Asian countries. Economic progress has been constrained by relatively poor social indicators and an inability to integrate through trade and investment with the rest of the world and among themselves. This results from weak economic management (reflected in persistently large fiscal deficits), low domestic savings rates, macroeconomic instability, relatively high inflation rates, unstable and volatile exchange rates, shallow financial markets, poor governance, and complex regulatory systems. On these indicators the region's countries compare unfavorably with Southeast Asia (Figures A2.1 and Table A2.2 in Appendix 2). High poverty and low human development index scores compared with other Asian countries (Table A2.3 in Appendix 2) and economic policies and political and bureaucratic systems and attitudes have undermined the attraction of the region either as a trading market or a location for foreign investment.

27. Moreover, South Asian countries, despite the advantage of proximity, still choose to trade more with the distant US or EU, than other regions do. Intraregional trade is less than 5% of total trade, well below East Asia's 32% (UNCTAD 2008a).

28. The history of business links, well-established transportation routes, and the low transaction costs of conducting trade and commercial operations with associates in other regions, has also kept the incentives to shift to new markets and develop new business partnerships low. However, the region's key advantage is its large population, its rate of growth, and its composition (a relatively large proportion of younger people aged <15 years) indicating a potentially huge demographic dividend (see Table A2.1 in Appendix 2 on demographics). To exploit this advantage, however, SAARC members need to sidestep their long and convoluted history of political dispute and embrace regional cooperation as part of a national vision.

### **III. BARRIERS TO TRADE**

#### **A. Introduction**

29. This section examines the barriers hindering trade within South Asia. It is divided into four broad subsections: tariff barriers to trade, non-tariff barriers restricting trade and the cost they impose on the economy, informal trade or trade through third countries encouraged by such barriers, and an analysis of the welfare<sup>7</sup> impact of lowering tariffs and measures and interventions to facilitate trade.

30. Formal intraregional trade in South Asia remains low at 5% of region's trade with the world, (Harun 2010). This can be explained by two factors: (i) formal trade barriers (including tariff and non-tariff barriers), and (ii) other barriers classified broadly as impediments to trade facilitation (political tension between countries, restrictive trade policies, gateway barriers such as poor customs clearance procedures and the absence of warehousing facilities at border points, and behind-the-border barriers (poor infrastructure and poor coordination between various implementation agencies mandated to ensure compliance of such requirements) (Banerjee and Roy 2010).

#### **B. Tariff Barriers to Trade in South Asia**

31. Agreements on tariff rates have become the mainstay of bilateral and multilateral trade agreements, and lowering of tariffs is a major component of policies to liberalize trading regimes.<sup>7</sup> Under the South Asian Free Trade Area (SAFTA), the goal is to eliminate tariffs by 2016 (see Appendix 3 for SAFTA tariff liberalization schedule).

32. In our opinion, the tariff structures of the South Asian economies on their own are no longer a significant impediment to trade (ADB 2008). However, for the purposes of this study, tariff barriers remain important for three reasons. First, tariffs on certain commodity imports, defined in the sensitive lists of each country, remain high (since commodities on the sensitive list are not eligible for tariff reductions under SAFTA until the second phase of the tariff liberalization program). Second, the tariff structures in South Asia are still more restrictive and higher than those of other trading regions. The average trade openness for South Asia in 2003 was 65%, compared with 144% in of the Association of Southeast Asian Nations (ASEAN) (Weerakoon 2010). Finally, the commitment of South Asian countries to SAFTA remains questionable in view of more liberal bilateral agreements in the region that operate on smaller negative lists than the SAFTA sensitive lists and the positive list maintained by Pakistan (a violation of SAFTA and World Trade Organization regulations) (Weerakoon 2010).

##### **i. Analyzing current tariff structures**

33. An analysis of the tariff structures in each of the South Asian economies provides some understanding of the degree of commitment to regional cooperation and the region's potential to trade with the rest of the world. Table 3.1 provides an overview and Appendix 3 a detailed discussion.

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<sup>7</sup> For this report, tariffs are defined as a tax imposed on a product when it is imported into a country.

**Table 3.1 Trade Weighted Average Tariff**

Country	Trade-weighted average tariff rate	Rankings
<b>South Asia</b>		
Afghanistan	21.9%	-
Bangladesh	13%	113
Bhutan	-	-
India	10.3%	104
Maldives	20.4% <sup>a</sup>	-
Nepal	12.8%	116
Pakistan	11.4%	105
Sri Lanka	8.2%	88
<b>Other Asian</b>		
People's Republic of China	13.9%	120
Malaysia	5.9%	68
Indonesia	6.1%	71
Republic of Korea	8%	86
Viet Nam	14.9%	126

<sup>a</sup> Tariff rate applied to most favored nations.

- = not available or applicable.

Source: World Bank, Global Competitiveness Report (2009–2010).

34. Sri Lanka maintains the lowest tariff rates in the region, at 8.2%, followed by India at 10.3%. However, India's average trade-weighted tariff rate does not reflect tariff peaks concentrated in agriculture and the relatively high tariffs levied on automobiles, textiles, and garments, the majority of which are above 25%. Since major exports from other South Asian economies comprise agricultural commodities, this is a distorting tariff rate and hurts intraregional trade with India. Pakistan, on the other hand, has a trade-weighted, average tariff rate of just 11.3%, in a tariff regime comprising four slabs, with the highest slab pitched at 25%.

35. As can be seen in Table 3.1, South Asian tariff rates are at the higher end of the spectrum, with Sri Lanka ranking at 88, India at 104, Pakistan at 105, and Bangladesh at 113, out of the 133 countries surveyed for the World Bank, Global Competitiveness Report 2010 (that is, the bottom quartile).

36. An overview of tariff structures in the South Asian economies is important, but it provides a static picture of tariff barriers and remains incomplete without a more dynamic analysis of efforts to reduce these barriers through ongoing tariff liberalization programs under regional and bilateral trading agreements and their inbuilt tariff concessions.

## **ii. Efforts to reduce tariff barriers under SAFTA and other bilateral trade agreements**

37. SAFTA and other bilateral trade agreements in the region<sup>8</sup> have built-in tariff liberalization programs that have implications for the level and nature of intraregional trade. An important provision, which directly affects trade, is the protection provided to the sensitive products of each member country through the maintenance of sensitive/negative lists.

### **a. SAFTA Trade Liberalization Program and sensitive lists**

38. The Trade Liberalization Program under SAFTA adopts a top-down approach to tariff reduction. Countries that are not least developed— Bangladesh, India, Pakistan, and Sri

<sup>8</sup> See Appendix 3 for a list of current bilateral and regional trade agreements, excluding SAFTA, and a detailed discussion of the agreements between India and Sri Lanka (ISFTA) and Pakistan and Sri Lanka (PSFTA).



Lanka—reduced tariffs to 20% by 2008, whereas the least-developed countries (LDC)—Bhutan, Maldives, Nepal and Afghanistan—reduced tariffs to 30%.<sup>9</sup> A further reduction in tariff rates to 0%–5% is expected in the next 5 years in the non-LDCs and 8 years in the LDCs (ADB 2008) (See Appendix 3 detailing the Tariff Liberalization Program).

39. The current sensitive lists under SAFTA cover about 20% of the tariff lines (Weerakoon 2010). As a result, a significant volume of trade covered by the sensitive lists is not subjected to tariff reductions (Table 3.1) (Das 2009).<sup>10</sup> Table 3.2 presents the percentage of imports from South Asia of sensitive list products, both as a percentage of imports from within SAARC and from the world. The results raise doubts about the effectiveness of SAFTA's Tariff Liberalization Program in the absence of commitments to reduce the number of items in the sensitive list.

**Table 3.2 Percent Share of Sensitive List Items in SAARC and Global Imports of Member Country**

Country	Share of imports from SAARC of SAFTA sensitive list items in total imports from SAARC	Share of imports from SAARC of SAFTA sensitive list items in total imports from world
Bangladesh	55.8%	25.97%
India	47.82%	5.04%
Maldives	67.25	26.98%
Nepal	29.47%	60.34%
Pakistan	18.84%	2.34%
Sri Lanka	26.99%	18.17%

Source: (Das 2009)

b. Bilateral trade agreements

40. Bilateral agreements have been more successful in limiting negative list sizes. For instance, whereas India maintains a sensitive list of 865 items under SAFTA, under the India–Sri Lanka Free Trade Agreement (ISFTA) Sri Lanka is subject to a negative list of only 419 items (Table 3.3). Similarly, although Pakistan maintains a sensitive list of 1,183 items under SAFTA, it subjects Sri Lanka to a negative list of only 540 items under the Pakistan Sri Lanka Free Trade Agreement (PSFTA) (half of the sensitive list under SAFTA) (Table 3.3). Additionally, the tariff liberalization period under ISFTA and PSFTA is shorter, 8 years and 3 years, respectively (Weerakoon 2010), compared to the time frame in SAFTA, in which duties are to be reduced to zero over a 10-year period. In other words, the bilateral agreements have been more effective in reducing tariff barriers than SAFTA.

**Table 3.3 Comparison of Negative/Sensitive Lists across FTAs in South Asia**

Country	SAFTA	ISFTA	PSFTA
Bangladesh	1,254*	-	-
Bhutan	137		-
India	865**	419	-
Maldives	671	-	-
Nepal	1,335	-	-
Pakistan	1,183	-	540
Sri Lanka	1,065	1,180	697

\*1,249 for least developed countries (LDC); \*\* 744 for LDCs; - = not applicable or not available

SAFTA = South Asia Free Trade Agreement; ISFTA = India–Sri Lanka Free Trade Agreement; PSFTA =

Source: Weerakoon (2010)

<sup>9</sup> But compliance required minimal tariff reductions by the non-LDC member countries since their trade-weighted average tariff rates were already lower than 20%.

<sup>10</sup> The State Bank of Pakistan argues that, looking at regulations. India's trade restrictiveness measures 8 and Pakistan's 6 on a scale from 1 to 10.

### iii. Gains from lowering tariff barriers on trade in South Asia

41. However, any analysis of tariff structures and initiatives to reduce them is incomplete without factoring in the gains that would accrue. This section reviews the likely gains to South Asian countries if tariffs are eliminated, looked at from the standpoint of trade creation, additional exports in individual countries, and imports and the impact on output, employment, and tax revenues (as desired by SAFTA).

42. A number of studies have been reviewed in this section to assess the impact of tariff reductions on trade and other related economic indicators. Raihan and Razzaque (2007)<sup>11</sup> estimated trade creation in South Asia as a result of tariff reductions.<sup>12</sup> Rodríguez-Delgado (2007)<sup>13</sup> and Razzaque (2010)<sup>14</sup> evaluated the impact of tariff reductions on individual country exports and imports.<sup>15</sup> Apart from estimating trade creation and the additional exports and imports of each country, ADB (2008)<sup>16</sup> also assessed the impact on output and employment and on tax revenue.

**Table 3.4 Trade and Economic Gains from a 100% Tariff Reduction**

Country	Creation of trade (\$ bln)	Gains in exports (\$ mln)	Gains in imports (\$ mln)	Share of exports to the region (% chg)	Share of imports from the region (% chg)	Impact on output (% chg)	Impact on employment (% chg)	Loss in tax revenue (\$ bln)
Afghanistan	-	-	-	-	-	-	-	-
Bangladesh	0.184-0.27	33	397.1	1.3%	37.4%	-0.03	0.0001	-0.23 to -0.9
Bhutan	17	37.8	41.5	1.7%	7.2%			-0.0023 to -0.0073
India	0.4-0.7	941.6	477.0	77.6%	15.1%	0.08	0.00002	-0.1 to -0.12
Maldives	0.026	6.1	48.5	0.2%	4.2%	-	-	-0.01 to -0.026
Nepal	0.012	187.0	189.7	9.4%	22.3%	-	-	-0.053 to -0.1
Pakistan	0.11	81.3	129.6	6.5%	3.0%	0.02	-0.0001	-0.052 to -0.085
Sri Lanka	0.17	223.7	227.0	3.4%	10.2%	0.55	-0.000107	-0.1 to -0.12

= data not available

Sources: ADB (2008), Rodríguez-Delgado (2007), Razzaq (2010), Raihan and Razzaq (2007).

- Creation of trade for each country from 100% tariff reductions

43. The value of potential trade within the region, from tariff elimination, is estimated to be 120% higher than the current level of intraregional trade (ADB 2008).<sup>17</sup> The creation of trade is estimated to be \$0.184 billion to \$0.27 billion for Bangladesh, \$0.4 billion to \$0.7 billion for India, \$0.026 billion for Maldives, \$0.012 billion for Nepal, \$0.11 billion for Pakistan, and \$0.17 billion for Sri Lanka.<sup>18</sup> However, these estimates do not indicate the direction of trade and the net welfare effects.

<sup>11</sup> Using the GTAP model,

<sup>12</sup> Raihan and Razzaque (2007) explore the impact on trade creation, i.e. the total net welfare effect in two different scenarios, i.e. in which Bangladesh only reduces tariffs for South Asian economies and when it grants most favored nation status to economies outside of South Asia

<sup>13</sup> Using the Gravity model

<sup>14</sup> Using SMART simulations.

<sup>15</sup> Dayal et al. (2008) explores the impact of a deepening SAFTA, i.e. the impact on exports and imports during Phase I and Phase II of the implementation of the agreement. For the purposes of this report, only the gains from 100% tariff reductions, i.e. under Phase II of SAFTA, have been considered.

<sup>16</sup> Using a GTAP model.

<sup>17</sup> Gravity model results.

<sup>18</sup> These values have been obtained from Dayal et al. (2008) and Raihan and Razzaque (2007)

44. Raihan and Razzaque (2007) conduct such an analysis. They estimate the net welfare effect—that is, trade creation as well as trade diversion<sup>19</sup> under two different scenarios—when all member countries eliminate only their intraregional tariffs and when Bangladesh reduces its tariffs against the rest of the world by 50%. The results show that full tariff liberalization under SAFTA leads to a net welfare loss of \$184 million for Bangladesh. India, Sri Lanka, while the rest of South Asia gains; for them the trade creation effects dominate the trade diversion effects. However, when Bangladesh reduces most-favored nation (MFN) tariffs by 50% along with full tariff liberalization under SAFTA, it stands to gain \$84.1 million. The positive welfare gains of other countries are also maintained.

**Table 3.5 Welfare Effects of Tariff Reductions under SAFTA**

Country	Scenario I—Tariffs with the rest of the world kept intact (\$ million)			Scenario II—Bangladesh undertakes MFN tariff cuts of 50% (\$ million)		
	Trade creation	Trade diversion	Welfare effect	Trade creation	Trade diversion	Welfare effect
Bangladesh	10	(200)	(190)	184	100	84
India	400	(50)	350	400	(75)	325
Sri Lanka	100	(20)	120	120	(30)	92.8
Rest of South Asia	600	(200)	400	650	(200)	446.5

MFN = most favored nation

Source: Results of GTAP Model Simulations by Raihan and Razzaque 2007.

45. Raihan and Razzaque (2007) also explored the possible reasons for the large trade diversion effects for Bangladesh. Results from one of the simulation scenarios showed that imports from the People's Republic of China (PRC) and other low-cost sources outside the region declined, while those from India increased significantly. This indicated a replacement of the most efficient supplies with relatively expensive imports. Even when advanced developing partners are globally efficient, it is possible that high MFN tariffs would prevent weaker economies from maximizing the gains of trade creation because suppliers may decide not to reduce their prices by the full amount of tariff preferences granted under the regional arrangement.

- Gains in exports and imports for each South Asian country from a 100% tariff reduction

46. Table 3.4 presents the gains in exports and imports for individual South Asian economies under a 100% tariff reduction. They are summarized below:

47. **Bangladesh's** exports would increase by \$33 million and its imports by \$39.71 million (Razzaque 2010). The percentage gain in Bangladesh's exports to the region would be 14.4% (ADB 2008). The country's exports to the region would increase by 1.3% and imports from the region by 37.4% (Rodriguez-Delgado 2007). Global exports would grow by 0.19% and global imports by 0.27% (ADB 2008).

48. **India's** exports to the region would increase by \$941.6 million and its imports by \$477 million (see Razzaque 2010). India's exports to the region would gain 90.44%. Its global exports would increase 1.19% and global imports 1.68% (ADB 2008).

<sup>19</sup> Trade diversion only takes place when members of a regional grouping are not the most cost efficient producers, contributing to a misallocation of resources. This generally is the most common criticism against preferential tariff concessions to members of a regional group.

49. **Pakistan's** exports would increase by \$81.3 million and its imports by \$129.6 million (Razzaque 2010). Pakistan's exports to the region would gain 102.41% (ADB 2008). The country's share of exports to the region would increase 6.5% and for imports from the region by 3% (Rodriguez-Delgado 2007). Global exports would increase 0.77% and global imports 0.54%. (ADB 2008).

50. **Sri Lankan** exports would grow by \$223.7 million and its imports by \$227.0 million (Razzaque 2010). Its exports to the region would gain 58.78% (ADB 2008). Its share of exports to the region would rise 3.4% and imports from the region by 10.2% (Rodriguez-Delgado 2007). Global exports would increase 0.72% and global imports 1.98%. (ADB 2008).

51. It is estimated that **Maldives'** exports to the region would go up by \$6.1 million and its imports by \$48.5 million (Razzaque 2010). Its share of exports to the region would increase 0.2% and its share of imports from the region by 4.2% (Rodriguez-Delgado 2007).

52. **Nepal's** exports would grow by \$187.0 million and its imports by \$189.7 million (Razzaque 2010). The country's share in total regional trade would increase 9.4% for exports and 22.3% for imports (Rodriguez-Delgado 2007).

53. **Bhutan's** exports are expected to increase by \$37.8 million and its imports by \$41.5 million (Razzaque 2010). The country's share in total regional trade is expected to increase by 1.7% for exports and 7.2% for imports (Rodriguez-Delgado 2007).

- Impact on output and employment for each South Asian country from 100% tariff reduction

54. Table 3.4 also shows the impact on output and employment in a South Asian free trade arrangement. Indian output is expected to gain 0.08%, while employment gains are negligible. For Pakistan, output would gain 0.02% and there would be a modest loss in employment. Bangladesh would lose 0.03% in output, but employment would gain slightly. Sri Lanka's output would increase 0.55%, while employment is not expected to change (ADB 2008). For Afghanistan, Bhutan, Maldives, and Nepal output is anticipated to increase 0.26% and employment to grow only marginally (ADB 2008).

- Impact on tax revenue for each South Asian country from 100% tariff reduction

55. The impact on tax revenue of a 100% tariff reduction is overwhelmingly negative (ADB 2008). India would suffer revenue losses between \$0.1 billion and \$0.12 billion; Pakistan \$0.052 billion to \$0.085 billion; Bangladesh from \$0.23 billion to \$0.9 billion; Sri Lanka from \$0.1 billion to \$0.12 billion; and Nepal from \$0.053 billion to \$0.1 billion, or equivalent to 1% of GDP. Maldives would lose revenue of \$0.01 billion to \$0.026 billion (ADB 2008), or 1.5% of the GDP (Rodriguez-Delgado 2007). Bhutan would suffer revenue losses between \$0.0023 billion and \$0.007 billion (ADB 2008), or 2.5% of its GDP (Rodriguez-Delgado 2007).

56. To summarize the discussion above, a 100% reduction of tariffs rates would produce gains. But, with the exception of India, none of the other South Asian countries could expect to enjoy a positive intraregional trade balance as a result. That is, although there are gains to be had in both exports and imports for all South Asian countries, India's gains far exceed the rest. In addition, Bangladesh could expect a reduction in output, whereas Pakistan and Sri Lanka could experience a fall in employment rates. Finally, tax revenues for all South Asian economies would decline as a result.

57. For a definitive conclusion, however, an assessment of the net welfare effects of trade creation and diversion is needed. Outcomes must also be viewed in a dynamic sense to understand whether in the long term regional arrangements are trade diverting in that there could be trade diversion for some products and trade creation for others. Moreover, the weaker economies could benefit from the opportunities that would arise from them as hubs for transit trade if appropriate investments were made in transportation networks. Therefore, for maximizing gains from free trade in the region, tariff reductions should not be the sole instrument for enhancing intraregional trade. These need to be supplemented by trade facilitation measures (see section III-B) and a removal of barriers to trade in services and investment. The elimination of these barriers should lower the costs and alter the nature of trade within the region, resulting in larger and more comprehensive net welfare gains.

#### **iv. Conclusions**

58. There are several policy recommendations that emerge from the discussion on tariff barriers if intraregional trade is to expand. First, India should reduce its tariffs on agricultural products. Second, because of the extensive sensitive lists, regional trade gains will remain limited until the implementation of SAFTA. And third, although econometric model simulations predict trade gains from tariff reductions, the actual gains for individual countries will vary, with some countries losing out in net terms. The implication of this outcome being that tariff reductions may be a necessary but not a sufficient condition for gains to accrue to all member countries, unless the scope of SAFTA is extended to include services and investment.

### **C. Non-Tariff Barriers**

#### **i. Introduction**

59. This discussion will cover not only the explicitly identified non-tariff barriers, but also the implicit barriers to trade, that is, barriers to trade facilitation. It will highlight whether the barriers apply to intraregional trade alone or also have implications for trading links with the entire world. The section will also illustrate the costs of these barriers, using trade between India and Pakistan as a proxy. It will then provide an overview of the potential welfare gains from trade facilitation.

#### **ii. Overview of current barriers to trade in South Asia**

60. Despite commitments to tariff liberalization under SAFTA, tariff barriers remain a major impediment to growth in inter- and intraregional trade, and are used as tools to replace declining tariff rates and to protect domestic industry. It is these informal restrictions on travel, remittances, banking, and customs clearance that are more trade limiting in nature.

#### **iii. Non-tariff barriers**

61. The WTO defines non-tariff barriers as barriers to protect domestic industry that are not discriminatory towards any particular country, that is, barriers to trade excluding tariff rates but including barriers (ADB 2008) such as;

- Sanitary and phyto-sanitary measures (SPS)
- Technical barriers to trade (TBT)
- Quotas
- Anti-dumping measures
- License requirements
- Countervailing measures

62. These non-tariff barriers are not specific to trade within SAARC. Table 3.6 shows the fairly high non-tariff barriers in the region.<sup>20</sup>

**Table 3.6 Non-Tariff Barriers in Selected Asian Economies**

Description (HS code)	India	PRC	Hong Kong, China	Malaysia	Singapore
Primary products (0-4, 68)	35.37	6.46	0.35	3.02	0.61
Agricultural products (0-2, 4)	42.24	7.3	0.41	3.53	0.72
Mining products (3, 68)	2.37	1.51	-	-	-
Manufactures (5-8 less 68)	27.18	8	0.49	2.41	0.13
Iron and steel (67)	-	44.85	0.44	7.97	-
Chemicals (5)	16.73	3.9	2.19	0.75	-
Other semi-manufactures (61-64, 66, 69)	28.18	1.36	-	0.9	-
Machinery and transport equipment (7)	28.11	14.02	-	4.29	0.56
Textile and clothing (65, 84)	80.58	2.85	-	0.3	-
Other consumer goods (81-83, 85, 87-89)	61.17	5.05	-	4.31	-
Other products (9)	50	-	-	-	-
<b>All products (0-9)</b>	<b>34.66</b>	<b>7.62</b>	<b>0.46</b>	<b>2.54</b>	<b>0.24</b>

- = not available or applicable; PRC = People's Republic of China

63. The most prevalent non-tariff barriers in the South Asia are SPS and TBT measures, levied across 86% of tariff lines (ADB 2008).

64. Non-tariff barriers are not a specific constraint to intraregional trade because they are applied on all imports, regardless of their origin. In addition, the implementation of these

<sup>20</sup> **India:** 65% of non-tariff barriers levied for consumer goods, 43% for intermediate goods, and 34% for capital goods. India uses anti-dumping duties and anti-dumping investigations as the primary non-tariff barriers to trade. Data from 2006 indicate that anti-dumping duties are imposed across 47 tariff lines and anti-dumping investigations are required across 12 tariff lines. (Das 2009). India also imposes a countervailing duty of 16.3% on most items, a special countervailing duty of 4% and an education cess of 2% (Taneja 2007).

**Pakistan:** Packaging and labeling requirements are the most extensively imposed barriers to trade, across 62 tariff lines (Das 2009). Pakistan also imposes a sales tax of up to 15% and a withholding tax of up to 6%.<sup>20</sup> (Taneja 2007).

**Bangladesh:** non-tariff barriers consist mainly of non-automatic licenses and prohibitions, which were levied across over 1,000 tariff lines in the year 2000, (Das 2009), 8% mandatory SPS as well as labeling requirements (Moazzem and Rehman. 2010).

**Nepal:** Does not impose extensive non-tariff barriers, barriers consist mainly of prohibition to protect human health, imposed across two tariff lines in 1998. (Das 2009).

**Sri Lanka:** Imposes extensive non-tariff barriers, the majority of which consist of licensing requirements, inspections, prohibitions, and authorizations across more than 400 tariff lines (Das 2009).

measures remains weak and is therefore not perceived as a major hindrance to trade in the region.

65. The only exception in this case is India, which applies a number of SPS measures strictly. It has mandatory standards for 68 items set by 24 bodies, creating confusion on the standards to be adopted and raising the transaction costs of trade (Taneja 2007).<sup>21</sup>

#### iv. Barriers to trade facilitation

66. The WTO defines trade facilitation as the process of “simplification and harmonization of international trade procedures” covering the “activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade” (Banerjee and Roy 2010). Obstacles to trade facilitation are viewed as the most significant and pernicious constraints to intraregional and inter-regional trade.

67. Barriers to trade facilitation can broadly be categorized as gateway barriers and behind the border barriers. Table 3.7 provides an overview of the barriers that impede trade facilitation. Table 3.8 provides an overview of the barriers to trade facilitation in terms of documentation requirements, their processing time, and the cost of importing and exporting goods. Sri Lanka has the highest ranking on trade across borders while Afghanistan the lowest. However, none of the members of SAARC rank among the top 50 countries on efficiency of trading transactions. In fact, with the exception of India, Pakistan and Sri Lanka, none of the South Asian countries rank among the top 100 countries, suggesting that barriers to trade are higher in South Asia compared to the rest of the world. An analysis of these barriers is important to understanding the nature and extent of reform needed to improve intraregional cooperation and realize the full potential of intraregional trade. Table 3.9 also provides an overview of the country-specific barriers to trade facilitation in South Asia.

**Table 3.7 Types of Trade Facilitation Barriers**

<b>Gateway barriers</b>	<b>Behind the border issues</b>
Customs and other border formalities, including non-tariff barriers	Quality and cost of transport infrastructure
Transparency of regulations	Availability of multi-modal transport
Efficacy of regulating agencies	Quality of logistical support in hinterland, such as warehousing facilities
Efficacy and logistical capability of ports, airports, and land border crossings	Efficacy and transparency of regulations of within- country border crossings.
Cost and quality of international transport links	
Quality of international institutional links such as mutual recognition agreements and preshipment inspection agreements	

Source: (Banerjee and Roy 2010).

<sup>21</sup> Despite the perception of SPS measures as an impediment to trade with India, the most prevalent non-tariff barrier the country implements is in fact anti-dumping duties and investigations. The stringent application of SPS measures, coupled with poor facilitation for traders required to comply with these measures, is an issue of poor trade facilitation and is discussed in some detail in Section 3.3.4.

**Table 3.8 Trade Costs of the South Asian Economies**

	<b>AFG</b>	<b>BAN</b>	<b>BHU</b>	<b>IND</b>	<b>MAL</b>	<b>NEP</b>	<b>PAK</b>	<b>SRI</b>
Rankings								
2007	172	139	148	142	100	150	81	94
2008	174	112	149	79	110	151	94	60
2010	183	107	153	94	126	161	78	65
Documents required for export								
2006	7	7	8	10	8	9	8	7
2008	12	7	8	8	8	9	9	8
2010	12	6	8	8	8	9	9	8
Time for exports (days)								
2006	66	35	38	36	21	43	33	25
2008	67	28	38	18	21	43	24	21
2010	74	25	38	17	21	41	22	21
Costs to export (\$)								
2006	2,500	902	1,150	864	1,200	1,600	966	797
2008	2,500	844	1,150	820	1,200	1,600	515	810
2010	3,350	970	1,210	945	1,348	1,764	611	715
Documents required for import								
2006	10	13	11	15	9	10	12	12
2008	11	9	11	15	9	10	8	6
2010	11	8	11	9	9	10	8	6
Time for imports (days)								
2006	97	57	38	43	20	35	39	27
2008	71	32	38	21	20	35	18	21
2010	77	29	38	20	20	35	18	20
costs to import (\$)								
2006	2,100	1,287	2,080	1,244	1,200	1,725	1,005	789
2008	2,100	1,148	2,080	910	1,200	1,725	1,336	844

AFG = Afghanistan, BAN = Bangladesh, BHU = Bhutan, IND = India, MAL = Maldives, NEP = Nepal, PAK = Pakistan, SRI = Sri Lanka

**Table 3.9 Country Specific Barriers to Trade Facilitation**

<b>Country</b>	<b>Barriers to trade facilitation</b>
Bangladesh	<ul style="list-style-type: none"> <li>• Congested and inefficient major ports of entry</li> <li>• No information technology infrastructure to support custom clearance at the border points</li> </ul>
India	<ul style="list-style-type: none"> <li>• Certification requirements</li> <li>• Inefficiently run border crossings</li> <li>• Restrictions on rail movement of goods</li> <li>• Complicated and restrictive visa requirements</li> <li>• Long dwell times at ports and border points</li> <li>• Several custom clearance requirements; and</li> <li>• Transit restrictions.</li> </ul>
Nepal	<ul style="list-style-type: none"> <li>• Delays in customs clearance for cross border rail operations;</li> <li>• Lack of trained human resources and physical equipment to facilitate custom processes</li> <li>• Lack of investment in creating new overland link</li> <li>• Congestion at existing border points</li> </ul>
Pakistan	<ul style="list-style-type: none"> <li>• Positive list approach to Indian imports</li> <li>• Absence of land routes</li> <li>• Sea travel restrictions</li> <li>• Border restrictions and delays in customs clearances</li> </ul>



	<ul style="list-style-type: none"> <li>• Visa restrictions</li> <li>• Poorly managed and congested railway systems</li> <li>• Transit Restrictions</li> </ul>
Sri Lanka	<ul style="list-style-type: none"> <li>• Poor quality of roads connecting hinterland</li> </ul>

Source: (Das 2009), (Chaturvedi et al. 2010), (ADB 2009).

68. As can be seen from Table 3.9, policy constraints (including regulatory impediments at borders and behind the border) and poor infrastructural links appear to be consistent barriers across all five countries.

69. We review two main types of barrier—policy barriers and infrastructure related barriers—encompassing both gateway and behind-the-border issues. They are each discussed in detail below.

#### a. Policy barriers to trade facilitation

70. These include policies such as visa requirements that restrict the free movement of people and regulatory issues (such as poorly developed IT systems, unhelpful customs facilitation systems, and an abundance of behind-the-border regulatory agencies) that cause delays in conducting trade, raising the cost of trade related transactions. They are reviewed below as (i) restrictive policies and (ii) regulatory barriers.

#### • Restrictive policies as trade facilitation barriers

71. The restrictive policies of South Asian countries towards each other, either directly or indirectly, serve as barriers to the seamless movement of goods across borders. These barriers are specific to intraregional trade. In the order of their perceived impact and potential, they include:

- The visa-related limitations on travel between India and Pakistan allowing single entry, city-specific visas, with police reporting requirements and affecting the development of trading relationships and other links, raising the cost of trade and restricting the growth of trading opportunities.
- The positive lists maintained by Pakistan for imports from India, which encourage trade through informal routes (see Section III-D for details on informal trade) and government monopolies in the imports of agricultural and petroleum products. The State Bank of Pakistan estimates that by expanding the positive list, Pakistan could save on average \$400 million–\$900 million.
- Restrictions on transit facilities—for example, India does not allow Pakistan transit to Bangladesh and Nepal, whereas, while Pakistan allows transit to Afghanistan to trade with India, it has restricted India from crossing its borders. (Taneja 2007).
- The road protocol between India and Bangladesh (Banerjee and Roy 2010) and between India and Pakistan (Taneja 2007) does not permit trucks from the importing country to travel within the host country's borders, requiring offloading and on-loading of trucks at borders, adding to the time and cost of trade.
- Restricting trade between India and Pakistan by only one road route raises the cost of trade between the two countries. For example, Pakistan only allows the import of agricultural produce and export of cement by road through its Wagah border with India. Moreover, trade through this border is limited because of time restrictions. The border closes at 4:00 p.m., causing delays in transportation and reducing the volume of trade at this border point (Taneja 2007).

- The 1974 Protocol of Maritime Trade between Pakistan and India does not allow third country vessels to lift India/Pakistan-bound cargo. The protocol also restricts flag carriers of either country from lifting cargo for a third country from each other's ports, causing delays and adding to transportation costs (Taneja 2006).
- Restrictions imposed by Pakistan and India on setting up banks/branches in each other's territory and the difficulties of establishing or confirming L/Cs are additional barriers to trade expansion.
- Regulatory barriers

72. This section identifies the policy barriers to trade facilitation arising from poor inter-country coordination of custom procedures and delays resulting from inefficient physical inspection standards.<sup>22</sup>

- Documentation requirements and the use of IT:

73. Although customs procedures have generally improved in the South Asian countries (ADB 2008) following greater use of electronic data interchange and information technology and almost complete elimination of paper transactions, the use of technology remains inefficient.

74. Table 3.10 indicates the average number days required for customs clearance in South Asia in comparison with the PRC and middle income countries.

**Table 3.10 Average Number of Days for Customs Clearance**

	<b>Bangladesh</b>	<b>India</b>	<b>Nepal</b>	<b>Pakistan</b>	<b>Sri Lanka</b>	<b>PRC</b>	<b>Avg. for middle income countries</b>
Average days for customs clearance	4.47	3.45	1.41	6.75	1.59	1.2	2.2

PRC = People's Republic of China

Source: World Bank, Global Competitiveness Report, 2010.

75. With the exception of Sri Lanka and Nepal, the number of days for clearing goods through customs exceeds the average number for middle income countries. India, Bangladesh, and Pakistan have very high averages, at 3.45, 4.47, and 6.75 days respectively. These delays are not exclusive to intraregional trade. All trading partners of the South Asian countries face higher transaction costs as a result of complicated and inefficient customs systems and procedures.

76. Barriers to trade between South Asian countries resulting from such delays can be explained by poor coordination or absence of customs facilitation systems at border points. A survey of 14 local customs stations in eastern South Asia dealing with transit trade revealed variations in the systems being used for electronically clearing goods through customs. For instance, Petrapole (India) and Raxaul (India) use ICEGATE software, whereas their corresponding border points in Benapole (Bangladesh) and Birgunj (Nepal) use ASYCUDA (Automated Systems for Customs Data) software, which merely increases

<sup>22</sup> Although inspections relating to SPS and TBTs are considered non-tariff barriers to trade, the delays they cause in trading procedures fall under the purview of barriers to trade facilitation.

the procedural delays in clearing goods (Chaturvedi et al. 2010). Customs formalities in most other least developed countries, in South Asia are still being handled manually (Chaturvedi et al. 2010).

77. Barriers to trade in the region that cause delays in clearing goods through customs include complicated documentation requirements, because of the large number of behind-the-border agencies involved in approving trading transactions. Even though most countries have adopted electronic data interchange, the systems require a number of approvals on hard copies of supporting documents (Chaturvedi et al. 2010). An Indian exporting to Bangladesh requires 330 signatures on 17 documents at different stages of the process from a number of agencies (Chaturvedi et al. 2010). Additionally, for security and related reasons, the average time for customs clearance at the border between Pakistan and India is 10 days for India and 17 days for Pakistan (Taneja 2007).

78. To speed up the processing of trade transactions for both intraregional and inter-regional trade the reform of customs procedures needs to ensure harmonization of customs facilitation systems<sup>23</sup> and automation of these procedures and all inter-agency communications.

- SPS implementation requirements:

79. The current procedures for satisfying SPS requirements raise transaction costs for all trading partners of the South Asian countries because of a lack of coordination between the enforcement agencies, the different IT systems installed on either side of the border, and the infrastructure supporting physical inspections.

80. As already mentioned above, India imposes 68 mandatory standards and has 24 oversight agencies, which, while creating considerable confusion, also raise the cost of transacting trade. The physical inspections cause long delays since the testing laboratories are far from the port of entry (see Appendix 3 for more details on SPS and TBT barriers between India and Pakistan).

81. There is, therefore, a need to introduce reforms for streamlining verification and certification procedures and systems, improving risk management techniques, and creating decent infrastructure at the border points to facilitate and support the efficient implementation of these standards.

#### b. Infrastructural constraints in South Asia

82. There are two major infrastructural constraints to trade facilitation. First, the current infrastructure is weak and poorly linked with the hinterlands, leading to congestion and an increase in lead times. Second, there has been limited investment in improving or creating alternative trading routes within the region. Since the majority of intraregional trade between the South Asian countries is conducted through overland routes, because most of the countries are landlocked, the lack of investment in overland infrastructure has significantly added to the cost of trade and resulted in congestion on existing trading routes, overland and by sea. A container can take as many as 35 days to move from New Delhi to Dhaka because the maritime route goes first to Mumbai on India's west coast, by sea to Singapore/Colombo, to Chittagong Port in Bangladesh, and then by rail to Dhaka. The same container would reach Dhaka in 5 days if there were a direct rail link between New Delhi and Dhaka.

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<sup>23</sup> Harmonization of customs facilitation systems is the term being used to refer to systems such as ACSUDYA and ICEGATE and should not to be confused with the harmonization of tariff codes.

83. Similarly, a container from Dhaka to Lahore has to travel 7,162 kilometers (km) by sea instead of 2,300 km, because India does not permit transshipment. Cooperation between Bangladesh, India, and Pakistan in developing transport-related infrastructure could have enabled movement along shorter overland routes (Rahmatullah 2010).

84. These barriers to trade facilitation, with the exception of constraints to maritime trade, are essentially barriers to intraregional trade, since the most efficient routes for intraregional trade are overland.

85. Table 3.11 looks at the quality of infrastructure in South Asian countries, including road, rail, and port infrastructure.

**Table 3.11 Global Rankings of Quality of Infrastructure in South Asian Countries**

	Bangladesh	India	Nepal	Pakistan	Sri Lanka
Port infrastructure (rank)	113	90	119	73	43
Rail infrastructure (rank)	65	20	-	51	44
Road infrastructure (rank)	96	89	126	65	60

- = not applicable

Source: Logistics Performance Indicators, 2009

86. The discussion below highlights the specific barriers faced on trading routes in the region.

- *Barriers to overland trade via road routes*

87. The overland crossings in South Asia, such as Benapole (between Bangladesh and India) and Birgunj (India and Nepal), are some of the most inefficient in the world (Chaturvedi et al. 2010). As described above, these overland crossings suffer from inconsistent customs procedures on both sides of the border and an absence of warehousing and quarantine facilities at the border points.<sup>24</sup>

88. Table 3.12 gives the average lead-time to import for land supply chains in South Asia. These lead times are also relevant for overland rail route crossings.

**Table 3.12 Efficiency of Overland Crossings<sup>25</sup>**

	Bangladesh	India	Nepal	Pakistan	Sri Lanka
Lead time to import, in days	-	5.36	18	3.87	-

- = not available

Source: World Bank, Global Competitiveness Report, 2010 and Logistics Performance Indicators, 2009.

89. Of the key road corridors in the region only 36% are four or more lane paved roads and 57% are two lane paved roads. The remaining roads (around 7%) are of poor quality, having either narrow lanes (3.5 to 5.5 millimeters in width) and/or having poor surface conditions (Rahmatullah 2008).<sup>26</sup> At the Benapole corridor, the narrowness of roads limits the flow of traffic to 15–18 tonne trucks (Chaturvedi et al. 2010).

<sup>24</sup> For instance, there are no plant quarantine or cold storage facilities at the Wagah border (Taneja 2007), and there are no bonded warehousing facilities on the Indian side of the Benapole border (Chaturvedi et al. 2010).

<sup>25</sup> Global Competitiveness Report 2009–2010, Logistical Performance Indicators, 2009–2010.

<sup>26</sup> Mostly in Bangladesh, Bhutan, India, and Nepal.

- *Barriers to overland trade via rail routes*

90. Infrastructural constraints common to rail routes in the region include the manual handling of documentation, duplication of customs checks, limited working hours, and restrictions on movement of containers, open wagons, and oil tankers (See Table 3.12 for lead times of land supply chains).

91. Other major physical barriers include inadequate loop lengths, missing links of shorter lengths in the borders areas, lack of physical infrastructure at interchange points (i.e. the absence of warehousing and quarantine facilities), load restrictions on bridges, and capacity constraints in certain sections of the identified corridors.

92. Additionally, the lack of standardization of technologies with respect to gauges, braking systems, compatibility of rolling stock, and so on, has led to limited investment in creating alternative and more efficient rail routes between neighboring countries in the region, raising the costs of intraregional trade.

93. On the Lahore (Pakistan) to Amritsar (India) rail route a limited number of wagons are available for transport, considerably increasing lead times as well as forcing the re-routing of import traffic from within India through the more costly sea route (Taneja 2007).

- *Barriers to maritime trade:*

94. The sea ports currently open for trading purposes in South Asia are inefficient and suffer from significant delays due to congestion and poor customs procedures. This is both a regional as well as an international issue, since these ports are used for intraregional trade as well as transshipment hubs for international trade to and from the region.

95. Table 3.13 provides an overview of the average lead times to import by sea for Bangladesh, India, Nepal, Pakistan, and Sri Lanka.

**Table 3.13 Efficiency of Sea Ports in South Asia**

	Bangladesh	India	Nepal	Pakistan	Sri Lanka
Lead time to import, in days	1.41	5.31	6.32	1.59	2.45

Source: World Bank, Global Competitiveness Report 2010, Logistics Performance Indicators, 2009.

96. Congestion is a persistent problem at many of the region's container ports. The private terminal at India's port of Nhava Sheva, near Mumbai on the west coast, had 100% berth occupancy within three years of opening and occupancy at the public sector terminal approached the same level (Sustainable Development Unit 2008). Similar levels of berth occupancy are found at Chittagong in Bangladesh. Because of congestion, ships have to wait for berths or slow their sailing times to match berth availability.

97. Ports including Pakistan's Karachi, Sri Lanka's Colombo, and Jawal Lal Nehru Port (part of Nhava Sheva near Mumbai) have seen improvements over the years, but their efficiency, as measured by lead time to import, remains weak compared not only to other leading ports on the continent, but also smaller ports such as Laem Chabang in Thailand, where the lead time to import is 1.54 days (Banerjee and Roy 2010).

98. Other major physical barriers include poor road and rail connectivity to ports, capacity constraints at many of the ports, and heavy siltation in channels. Channels are often inadequate and suffer from poor maintenance, with cargo and ship handling equipment and floating crafts old and obsolete.

- *Barriers to trade via inland water transportation routes*

99. Among the major barriers in this area are high rates of siltation, bank erosion, inadequate navigational aids and draft restriction, as well as the poor condition of jetties and piers, a lack of sufficient storage, and the poor condition of cargo handling equipment and support craft. There are also no container handling facilities in the inland water transport systems, while cargo carrying vessels are old and repair facilities inadequate, with poor hinterland connectivity.

100. Additionally, although inland waterways transport has great potential to provide a cost-effective transport service between India and Bangladesh, the level of intraregional and transit traffic has been declining over recent years. The major barrier contributing to this trend has been the renewal of the protocol for only short periods of time, causing interruptions in the flow of traffic, with traders opting for alternative routes. However, a long-term renewal of the protocol is now being negotiated between the two countries.

- *Barriers to trade via air routes:*

101. Even though air transport has grown phenomenally, the SAARC region lags many other regions in this area. Connectivity between the regional centers, especially the capital cities through direct flights, is still rather low and many capitals are not directly connected. The cost of travel is relatively high compared to other regions. Moreover, the region has not developed strong hub operations for efficient regional transfers, which would only be possible if visa regimes between South Asian countries were relaxed.

## **v. Transaction costs of barriers to trade facilitation between India and Pakistan**

102. India and Pakistan are used in this section as a proxy for all of South Asia. The transaction costs were estimated in a study by Taneja 2006.<sup>27</sup>

103. Five factors were found to contribute to the costs of trade between the two countries: (i) limited transportation routes, (ii) the shipping protocol, (iii) restriction on the number of items permitted into Pakistan from India (the positive list), (iv) the lack of rail wagons (along the Wagah route) and (v) complicated procedural clearances. Table 3.14 summarizes the transport and transaction costs of using each trading route.

104. Costs per container on the indirect route are much higher than on the direct routes. But total time delays are much higher for the direct routes. For the overland routes, transport costs on the alternate Delhi-Mumbai-Karachi route are estimated to be 3.1 times and transaction costs 2.7 times the costs on the direct route between Delhi to Attari (on the India-Pakistan border on the way to Lahore). The actual transportation time on the Delhi-Attari route is 1 day, whereas if goods move by sea between Mumbai and Karachi it takes 1.5 days, compared with 6 days when routed through Dubai. The delays are caused by a variety

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<sup>27</sup> The key routes covered by the study are the Delhi-Attari rail route, Delhi-Attari road-rail route, and the alternate Delhi-Mumbai-Karachi land-cum-sea route, used because of the inaccessibility of the Delhi-Attari route and the sea routes; Mumbai-Karachi sea route and the alternate Mumbai-Dubai-Karachi route, the latter being used to transport items not on the permissible list.

of factors. Delays are longest on the Delhi-Attari route (12 days) because of the time taken to obtain clearances and approvals and to arrange wagons.

105. Despite the higher costs along the indirect trade routes, however, the more efficient overland trading routes are not being used because of higher transaction costs (time delays) resulting from congestion and inefficient customs clearance.

**Table 3.14 Transaction Costs of Trade Routes between India and Pakistan**

Route	Type of route	Transport cost (\$/container)	Transport cost (\$/container)	Total transport costs	Bribes	Total costs	Travel time (days)	Delays on routes	Total time
		rail/road	sea						
Delhi-Attari	rail	325		325	66	391	1	12	13
Delhi Attari	road-rail	338		338	77	415	1	12	13
Delhi-Mumbai-Karachi	rail-sea	460	550	1,010	48	1,058	4	8	12
Mumbai-Karachi	sea	-	550	550	26	576	1.5	7	8.5
Mumbai-Dubai-Karachi	sea	-	750–950	750–950	26	776–976	6	7	13

- = not applicable or not available  
Source: Taneja (2006).

106. Therefore, to realize the gains from expansion in intraregional trade, improvements in trade facilitation need to be prioritized. The section below provides an overview of the potential gains.

#### vi. Gains from the reduction/removal of barriers to trade facilitation

107. A number of studies have assessed the effect of trade facilitation reform for the gains it would generate. Wilson et al. (2005) use a gravity model to estimate a global increase of 9.7% and \$337 billion in trade from trade facilitation reform.<sup>28</sup> Francois and Manchin (2007), using the selection model, discovered that infrastructure and institutional quality are stronger determinants of North-South trade than tariff levels. Dejankov et al (2006), using a modified gravity equation estimate that each additional day lost in moving goods from production site to ship reduces trade levels by more than 1% of total global trade. Walkenhorst (2004), using the computable general equilibrium (CGE) model, discovered that world income grows significantly as a result of trade facilitation.

108. Although these studies focus on parts of the world other than South Asia, similar analysis has also been carried out for the South Asian economies. Wilson and Otsuki (2007) conduct a simulation analysis based on the gravity model of bilateral trade flows<sup>29</sup> and estimate the gains from lowering barriers to trade facilitation. The largest gains from the removal of barriers to trade facilitation flow from improvements in port efficiency and services infrastructure.

<sup>28</sup> According to the Gravity model the direction of trade is determined by the size of the trading partner and the distance. Applying this to Pakistan, say, would mean that India and the People's Republic of China should be the leading trading partners.

**Table 3.15 Gains from Trade Facilitation (\$ million)**

	<b>Customs modernization</b>	<b>Regulatory reforms</b>	<b>Port efficiency (air and marine)</b>	<b>Services infrastructure</b>	<b>Total gain</b>
Bangladesh	144	71	228	339	782
India	193	123	314	519	1,149
Pakistan	29	42	74	191	336
Sri Lanka	63	41	97	175	376
Total	429	278	712	1,224	2,643

Source: Wilson and Otsuki (2007).

109. Hertel and Mirza (2009), using a GTAP model, also estimate the effect of trade facilitation on global trade flows. They conduct the analysis for the agriculture, mining and extraction, textiles and clothing, and automobiles and parts sectors, and other manufacturing subsectors. They used the GTAP model to derive partial equilibrium results of export and import gains for South Asian countries as a result of trade facilitation reforms. A CGE model, developed by the Center for Global Trade Analysis, was employed to understand the macroeconomic impact of trade facilitation reform on intraregional as well as inter-regional trade in South Asia.

110. Tables 3.16 and 3.17 below present the results of both the partial and general equilibrium models. The impact of trade facilitation reform was smallest for India, the main beneficiaries being the least developed countries (Bhutan, Maldives, and Nepal), while the total gain in trade (inter-regional and intraregional) is estimated to be 22% of total trade flows for the region.

111. The discussion above suggests that the SAARC countries need to commit to significant policy, regulatory, procedural, and infrastructural reforms and investments to facilitate intraregional trade.

**Table 3.16 Impact of Trade Facilitation Reform on Export and Import (% chg, sector)**

<b>Sector</b>	<b>Bangladesh</b>		<b>India</b>		<b>Pakistan</b>		<b>Sri Lanka</b>		<b>Rest of South Asia</b>	
	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import
Agriculture	0	46	0	17	0	43	0	48	0	55
Extraction and mining	0	53	0	19	0	49	0	55	0	63
Textiles and clothing	33	36	12	14	31	34	34	38	39	43
Automobiles and parts	54	5	19	2	50	5	55	5	64	6
Other manufacturing	52	23	19	9	48	21	54	23	62	27

Source: Hertel and Mirza (2009)



**Table 3.17 Impact on South Asian Trade Volumes (Intraregional vs. Inter-regional) (\$, mln)**

Sector	Intraregional trade			Inter-regional trade		
	Initial volume	Change in volume	% change	Initial volume	Change in volume	% change
Agriculture	1,211	762	63%	8,042	1,597	20
Extraction and mining	730	(7)	(1)	16,312	(104)	(1)
Textiles and clothing	1,411	1,365	97	36,296	17,596	35
Automobiles and parts	151	48	31	2050	367	18
Other manufacturing	4,267	3,689	86	76,649	16,387	21
All sectors	7,770	5,862	75	139,894	30,843	22

Source: Hertel and Mirza (2009).

## **D. Informal Trade in South Asia**

### **i. Introduction**

112. As noted above, by raising the costs of formal trade, tariff and non-tariff barriers encourage informal trade or trade through trade countries. The long and porous borders between these countries, misuse of personal baggage schemes through green channel facilities, the Afghan Transit Trade through Pakistan, and circular trade through agents in free ports (such as Dubai and Singapore) also facilitate informal trade. This section provides an overview of the extent of informal trade in South Asia, focusing on India and Pakistan as the two major economies in the region. The existing routes and the value and the cost to the economy of informal trade between the two countries are discussed in detail, exploring the possible concessions required to formalize these trading arrangements. The analysis is used as a proxy for informal trade in the region.

### **ii. Informal trade**

113. India's geographic location, economic strength, and size make it a hub and a conduit for all informal trade in South Asia (Dayal et al. 2008). Taneja (2004–2005) quantifies informal trade in South Asia at \$1.5 billion, 72% of the region's formal trade. Table 3.18 gives the composition of the informal and formal trade of other South Asian economies with India.

**Table 3.18 Informal Trade as Percent of Formal Trade with India**

Country	Informal trade (\$ million)	Formal trade (\$ million)	As percent of formal trade
Bangladesh (1992–1993)	313	356.9	87.7%
Bhutan (1993–1994)	32.6	10.0	326%
Nepal (2000–2001)	408	396	103%
Pakistan (2004–2005)	524.6	602	87.1%
Sri Lanka (2000–2001)	207.3	685.2	30.2%

Source: Dayal et al. (2008).

114. Informal trade between India and Bangladesh is 87.7% of their formal trade, a figure backed up by commodity surveys in Bangladesh that suggest a significant proportion of household consumption is products imported informally.

115. India's informal trade with Bhutan is three times the size of its formal trade with the country. But it is expected that this figure would have declined following the 1995 agreement

between the two, which allows for free trade as well as transit facilities to Bhutan for third country trade.

116. Nepal's informal trade with India is almost as large as its formal trade, although the informal trade commodity basket differs significantly from the portfolio of formal trade, owing perhaps to the high tariff barriers that India maintains on agricultural products (see section III-B on tariff barriers), which are among Nepal's primary exports.

117. In 1991, India's informal trade with Sri Lanka exceeded its formal trade with the country (Dayal et al. 2008). But by 2001, informal trade with Sri Lanka had declined to 30% of formal trade, the major reason being the India–Sri Lanka FTA, which resulted in the lowering of India's tariff barriers. Remaining informal trade is largely owing to Sri Lanka's high domestic taxes.

### iii. Informal trade between India and Pakistan

118. India's informal trade with Pakistan is estimated at 87% of formal trade between the two countries in 2005 (Table 3.18).<sup>30</sup>

#### a. Major and minor informal trade routes

119. There are currently five major trading routes and six minor informal trade routes between India and Pakistan (Aziz et al. 2005), including:

- Dubai-Bandar Abbas-Heart-Kabul-Jalalabad-Bara
- Dubai-Bandar Abbas-Heart-Kabul-Wesh-Chaman
- Dubai-Bandar Abbas-Heart-Kabul-Wesh-Noshki-Quetta
- Sind Cross Border Route
- India-Dubai-Karachi Route

120. Trade on three of the major trade routes—Dubai to Bara, Dubai to Chaman and Dubai to Quetta—is containerized.

121. The six minor trading routes for informal trade include:

- Delhi-Amritsar-Lahore
- India-Singapore-Karachi
- India-Hong Kong-Karachi
- Mumbai-Karachi (through boats and launches)
- Mumbai-Kabul-Bara
- Afghan Transit Trade route through Karachi-Chaman-Afghanistan
- Afghan Transit Trade route through Karachi-Peshawer-Afghanistan

122. Only the five major trading routes and one minor trading route, Delhi-Amritsar-Lahore (the only overland direct rail route between the two countries), were surveyed under the SDPI study to quantify the value of informal trade between the two countries (Aziz et al. 2005). Appendix 3 provides more detail on the pattern and nature of trade along these routes.

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<sup>30</sup> Aziz et al. (2005)

b. Total Value of Informal Trade between India and Pakistan

123. The value of informal trade between the two countries, as estimated by a number of studies, is from \$250 million to \$0.2 billion.<sup>31</sup> (SBP. n.d.). Aziz et al (2005) estimated informal trade between Pakistan and India at \$545 million, of which \$10.5 million was trade from Pakistan to India and \$534.5 million was Indian exports to Pakistan.<sup>32</sup> These estimates were done prior to extension of the positive list in 2006, as well as the recent reduction in tariffs, and are therefore likely to be overestimates. However, the conclusions on the concessions required to formalize informal trade, in Aziz et al., are not affected by these changes because the study assesses the probability of informal trade flowing through formal channels in a scenario involving Pakistan granting India MFN status.

124. Unofficial/informal imports are of items that are either not on the 'positive list' or are subjected to high duties, and include betel leaves, tires, tea, medicines, videotapes, chemical products, cosmetics and jewelry. Items in demand include medicines, household products, iron ore, transport (including motorcycles and cars), plastics, textile machinery, and agricultural products. Informal exports from Pakistan include textile and food products and synthetic fibers.

c. Reasons for informal trade

125. The magnitude of informal trade between the two countries indicates untapped formal trade potential. Table 3.19 provides an overview of official trade policy, i.e. duties and taxes levied, that provide incentive for informal trade. As can be seen, the majority of the items traded are not permissible on the positive list. Other items, permissible by the positive list, but nevertheless traded, have minimum import related taxes of 21% and a maximum of 130%. The quick payment procedures, lack of documentation requirements, and no procedural delays, also provide incentive to informal trade.

**Table 3.19 Official Policy on Items Involved in Informal Trade from India to Pakistan**

Items	Duty (%)	Sales tax (%)	Total (%)
Cosmetics and jewellery	Banned	-	-
Medicines	Banned	-	-
Blankets	Banned	-	-
Electroplating chemicals	Banned	-	-
Cloth	Banned	-	-
Rickshaw and motorcycle parts	Banned	-	-
Paan guthka, Paan parag	Banned	-	-
Indian blade	Banned	-	-
Biri	Banned	-	-
Paan	100	15	130
Spices and herbs	5	15	38
Cattle	5	15	21
Pharmaceutical machinery	5	15	21
Truck tires	5	15	21
Tractor tires	20	15	44

- = not applicable

Source: Aziz et al. (2005).

<sup>31</sup> The studies included in this estimate are Taneja (2004); Sangani and Schaffer (2003); Dhakal (2004); Kanth (2002); Mr Riaz Ahmed Tata's Interview with Amitabha (May 2004).

<sup>32</sup> The high negative informal trade balance accruing to Pakistan can be partially explained by the maintenance of the positive list, so that there are profits to be made from smuggling these banned items.

## d. Channeling informal trade toward formal routes

126. Since the majority of products Pakistan imports under informal trading arrangements are those not on the positive list, Aziz et al. examine the effect on informal trade of granting India MFN status. They suggest this would lead to the formalization of trade in these items only if there were significant reduction in tariffs to make the gains of formal trade equal to the gains from informal trade (Table 3.20). Even under such a scenario, there are certain traditional trading links, such as along the Sind cross-border route, that are likely to be maintained despite cost reductions in formal trade.

**Table 3.20 Types of Transactions Costs Along Major Informal Trading Routes**

Type of transaction cost	Dubai-Bundar Abbas-Bara	Dubai-Bunder Abbas-Chaman	Dubai-Karachi (illegal)	Dubai-Karachi (third country)	Sind cross border	Lahore-Delhi
Tariff/taxes	None	None	None	Same as formal trade	None	None
Procedural	Much less than formal trade	Much less than formal trade	Much less than formal trade	Much less than formal trade	Much less than formal trade	Much less than formal trade
Transport	More than formal trade	More than formal trade	More than formal trade	More than formal trade	Much less than formal trade	Much less than formal trade
Expected outcome	Will switch if duties reduced substantially	Will switch if duties reduced substantially	Will switch if duties reduced substantially	Likely to switch to formal trade	Unlikely to switch to formal trade	Unlikely to switch to formal trade

Source: Aziz et al. (2005).

127. Any effort to formalize trade in South Asia will have to consider the reduction of tariff and non-tariff barriers to levels that make formal trade profitable for those currently trading informally. Since informal trade in the face of low overall transaction costs implies the absence of tariffs, only a free-trade scenario would be a sufficient condition for realizing the gains from formalizing informal trade. However, to make formal trade attractive there will have to be accompanying improvements in trade facilitation, including simplification of processes, procedures, and instruments.

#### **IV. Exploring the Potential for Intraregional Trade in Goods and Services**

##### **A. Introduction**

128. Previous sections make clear that “win-win” intraregional trade cooperation in the South Asian region has largely remained unexploited (indeed estimates suggest that three quarters of potential goes untapped). The existing pattern of intraregional trade, because of high tariff and non-tariff barriers, fails to capture the extent of complementarities (See Section III). Successful regional economic integration therefore hinges on invigorating intraregional trade and creating production and supply capacities in member countries through intraregional and foreign direct investment. This section will focus on the first prerequisite to regional economic integration, enhancing intraregional trade in goods and services, while Section V will focus on the potential for deepening investment integration.

##### **B. Trade in Goods**

###### **i. Extent of intraregional trade in South Asia**

129. As already argued, intraregional trade between countries in South Asia is among the lowest in the world, despite being twenty-five years into the creation of SAARC. Since 1948, South Asia’s share of intraregional trade as a share of total trade has shrunk to just 5% of total trade, from 18%.<sup>33</sup> Despite the advantage of proximity, South Asian countries still choose to trade more with the more distant US and EU. The history of business links, well-established transportation routes, and low transaction costs of conducting trading and commercial operations with existing associates in other regions has also kept the incentives to shift to new markets and develop new business partnerships low.<sup>34</sup>

130. Of all SAARC countries, India has the largest share in total intra-SAARC exports, at 74.8% (Table 4.1), with Maldives at the other end with a share of just 0.2%, while that of Sri Lanka and Pakistan is 6.4% and 8.6% respectively.

131. Sri Lanka and Bangladesh have the highest share of imports within the region, 26.7% and 27.2% respectively (Table 4.2). This is followed by Nepal at 17.5% and India at 17%. With the exception of Nepal and Sri Lanka, intraregional imports are rather low compared with SAARC member imports from the rest of the world.

132. Box 4.1 in Appendix 4 profiles trade for SAARC members, focusing on the extent of bilateral trade with other SAARC members to highlight the key industries in which the complementarities and potential for intraregional trade exist.

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<sup>33</sup> Ahmed and Ghani (2009)

<sup>34</sup> For instance, when Bangladesh and Sri Lanka began to enlarge their woven and made-up garments subsectors, the markets of India and Pakistan were comparatively blocked for expanding trade. At that time, entrepreneurs in East Asia stepped forward as buyers of products and as brokers/intermediaries and sourcing networks that these growing businesses required. Moreover, accounting for all costs including the overhead charges of sourcing and transportation and the draining effect of high tariff and non-tariff barriers, the PRC could still be a more economical supplier for most buyers.

**Table 4.1 South Asia Intraregional Exports (2007)**

Partner Country	Exporting Country					
	Bangladesh	India	Maldives	Nepal	Pakistan	Sri Lanka
Bangladesh		2,406.0	0.0	14.2	179.0	22.7
India	209.7		1.5	698.7	517.5	515.3
Maldives	0.0	95.6		0.0	4.5	50.9
Nepal	4.5	1,671.4	0.0		3.0	0.0
Pakistan	73.5	984.2	0.0	3.2		55.4
Sri Lanka	10.2	2,372.9	14.1	0.1	161.9	
<b>Total Exports to South Asia</b>	<b>297.9</b>	<b>7,530.0</b>	<b>15.6</b>	<b>716.2</b>	<b>865.8</b>	<b>644.4</b>
% of Intra-South Asian Exports	3.0	74.8	0.2	7.1	8.6	6.4
<b>Total Exports to the World</b>	<b>12,719.0</b>	<b>153,120.0</b>	<b>162.9</b>	<b>1,008.5</b>	<b>19,352.6</b>	<b>7,740.0</b>
% of Country Exports to the World <sup>a</sup>	2.3	4.9	9.6	71.0	4.5	8.3

\*Denotes exports from South Asian Countries as a share of total exports

Sources: ADB (2009) using IMF DOT (2008)

**Table 4.2 South Asia Intraregional Imports (2007)**

Source Country	Importing Country					
	Bangladesh	India	Maldives	Nepal	Pakistan	Sri Lanka
Bangladesh		211.1	0.0	4.9	87.8	10.9
India	2,646.6		128.6	1,838.6	885.6	2,610.1
Maldives	0.0	2.5		0.0	5.3	15.5
Nepal	15.7	768.5	0.0		3.5	0.1
Pakistan	196.9	240.6	4.4	3.3		178.1
Sri Lanka	13.5	566.8	56.0	0.2	61.0	
<b>Total Imports from South Asia</b>	<b>2,872.6</b>	<b>1,789.5</b>	<b>189.0</b>	<b>1,847.0</b>	<b>1,043.2</b>	<b>2,814.6</b>
% of Intra-South Asian Imports	27.2	17.0	1.8	17.5	9.9	26.7
<b>Total Imports from the World</b>	<b>18,476.3</b>	<b>249,576.0</b>	<b>1,739.1</b>	<b>3123.3</b>	<b>39,204.9</b>	<b>11,301.0</b>
% of Country Imports from the World <sup>a</sup>	15.5	0.7	10.9	59.1	2.7	24.9

\*Denotes imports from South Asian countries as a share of total imports

Sources: ADB (2009) using IMF DOT (2008)

133. From the Section III review of the literature and econometric models on the gains from the expansion of intraregional trade, based on existing patterns of trade, we conclude that except for India none of the South Asian countries can expect to enjoy a positive intraregional trade balance as a result of a tariff reduction. Bangladesh can expect a reduction in output as a result of tariff reduction, while Pakistan and Sri Lanka may experience a fall in employment rates. Tax revenues in all South Asian economies would decline as a result of the elimination of tariffs.

134. For a definitive conclusion, however, outcomes must be viewed in a dynamic sense, looking at whether in the long term regional arrangements are trade diverting. While there could be trade diversion for some products, there could be trade creation for others. To

maximize the gains from free trade, tariff reductions should not be the sole instrument for enhancing intraregional trade. While they may be a necessary condition, they are not a sufficient condition to produce gains in all member countries. They need to be supplemented with trade facilitation measures and a removal of barriers to trade in services and investment. The elimination of these barriers would lower the costs of trade and alter the nature of trade within the region, resulting in larger and more comprehensive net welfare gains.

135. Moreover, there are other advantages of regional exports, including the greater efficiency they could bring to domestic markets and access to markets that are expected to grow faster as positive demographic factors come into play.

## **ii. Economic rationale for intraregional trade in goods**

136. Standard trade theory (based on David Ricardo's comparative advantage theory and the Heckscher-Ohlin model) suggests that South Asian economies have limited scope for improving intraregional trade, given that they have the same comparative advantage in the production of products (garments, light manufacturing, and agricultural products). According to Ricardo, inter-industry trade takes place because of differences in factor endowments, technology, climate, and so on. The Heckscher-Ohlin model also argues that trade results from differences in resource endowments between countries; each country will export goods that require intensive use of factors in which it has a comparative advantage in terms of availability, while importing goods in which there is scarcity of the relevant factors and the country has no comparative advantage. This results in inter-industry trade, with each country specializing in a particular industry and trading with other countries specializing in different industries.

137. If the predictions of standard trade theory were right, there would be limited potential for intraregional trade in South Asia, as evidenced by their existing broad trade profiles. This is corroborated by empirical studies using the export revealed comparative advantage (XRCA) indices at the three-digit level, which show that countries in South Asia with same-resource endowments produce almost similar products, within a relatively narrow band/range (Samaratunga 1999 and Kemal et al. 2000), with their exports dominated by labor-intensive, price-sensitive, and low value-added products such as primary commodities, textiles, garments, and leather goods.

138. However, there also exists a vast body of empirical literature that suggests that a large number of countries simultaneously import and export goods in the same industry. For example, passenger cars are both the most exported and imported products in UK, Germany, and France. Therefore, inter-industry trade does not dominate trade relations to the extent that is predicted by standard trade theory models. New trade theory, as explained in the work of Krugman (1980, 1991), considers the possible implications of product differentiation and increasing returns to scale in explaining global trade.

139. Some studies also explore the nature of trade complementarities identified by the New Trade theory for South Asia. A recent UNCTAD-ADB (2008) quantitative study on South Asia shows that the number of products in which each country has a comparative advantage has increased (See Table 4.3). It also shows that the trade complementarity index (TCI)<sup>35</sup> has improved for Bangladesh, India, and Sri Lanka, though it has declined for Pakistan compared to the SAARC region as a whole. Table 4.3 shows that the TCI in terms of exports from India and Sri Lanka to the SAARC region has almost doubled in this time

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<sup>35</sup> The TCI shows how well the export profile of one country, or group of countries, matches the import profiles of others (Yeats and Ng 2003). Changes in the index over time can help determine whether trade profiles are becoming more, or less, compatible.

period (from 0.05 to 0.1 and from 0.21–0.50 respectively) while the TCI in terms of exports of the SAARC region to other countries has also increased overtime. This strongly indicates the possibilities for expanding intra- regional trade.

**Table 4.3 Trade Complementarity Index<sup>36</sup>, Exports and Imports**

Country	1991 (Avg Yr 1991–93)					2004 (Avg Yr 2002–04)				
	SAARC	Bangladesh	India	Pakistan	Sri Lanka	SAARC	Bangladesh	India	Pakistan	Sri Lanka
SAARC		0.05	0.22	0.25	0.08		0.06	0.31	0.10	0.12
Bangladesh	0.17					0.27				
India	0.05					0.10				
Pakistan	0.38					0.24				
Sri Lanka	0.21					0.50				

Source: ADB-UNCTAD (2008)

140. Another argument that strengthens the economic rationale for intra-regional trade integration in South Asia is the potential for vertical intra-industry<sup>37</sup> trade based on the comparative advantage in different stages of production. ADB-UNCTAD (2008), using the Grubel Lloyd Index, shows that intra-industry trade has increased in sectors such as agricultural raw materials, chemicals, and textiles for the four major trading partners in the SAARC region (See Table A4.1 in Appendix 4). The study also shows that intra-industry trade has increased in some subsectors within textiles, indicating that countries are beginning to specialize in products at different stages of production, the basis for intra-industry trade. As a result, manufactured goods now make up a larger share of total intraregional trade.

141. Despite South Asia's low potential in inter-industry trade, therefore, empirical evidence suggests growing potential for intra-industry trade in the region and the need for a different economic strategy to push production frontiers. Boxes 4.2 and 4.3 in Appendix 4 discuss at length the potential for increasing intra-industry trade between South Asian countries in two of the most promising sectors—textiles and automobiles. Section VI further discusses the scope for enhancing intraregional trade using the trade-investment nexus through vertical intra-industry trade in textiles and automobiles.

### iii. Identifying opportunities for intraregional trade among the SAARC countries

142. Having set out the theoretical justification for gains from increased intraregional trade for the SAARC countries, this section identifies specific sectors for intraregional trade by examining this potential for India and Pakistan. The analysis is then extended to other SAARC countries.

#### a. Opportunities for intraregional trade between India and Pakistan

143. Taneja (2007) estimates total trade potential between India and Pakistan at \$11.6 billion.<sup>38</sup> Pakistan's untapped export potential to India is \$2.1 billion, while India's to Pakistan is \$9.5 billion. About 55% of Pakistan's export potential lies in textile items while 90% of

<sup>36</sup> TCI takes the value of 1 when a composition of import needs in an importing country matches perfectly with the export bundle of the region. At the other extreme, where an export bundle of an exporting country has no relevance to the import needs of the region, the index takes the value of 0. As such, it is assumed that the higher the index value the more favorable is the prospect for a successful trade arrangement in the region.

<sup>37</sup> Vertical intra-industry trade refers to the simultaneous export and import of goods classified in the same sector, but at different stages of processing. This is likely to be based on the increasing ability to organize 'fragmentation' of production process into different stages, each performed at different locations by taking advantage of local conditions.

<sup>38</sup> Using the potential trade approach to estimation.



India's export potential to Pakistan comprises of non-textile items (Table 4.4)

**Table 4.4 India–Pakistan Export Potential (\$ billion)**

	<b>Pakistan's Export Potential to India</b>	<b>India's Export Potential to Pakistan</b>
Textiles	1.2 (55%)	0.9 (10%)
Non-Textiles	1.0 (45%)	8.6 (90%)
<b>Total</b>	<b>2.2 (100%)</b>	<b>9.5 (100%)</b>

Figures are based on 2005 trade data.

Source: Taneja (2007) using PCTAS UN/COMNTRADE Database, (trade statistics for 2005)

144. One-third of items in the total value of Pakistan's exports represent products that India imports from the rest of the world.<sup>39</sup> The savings in costs that could be achieved if Pakistan provided these items to India, rather than the rest of the world, is a strong argument for doing so. The State Bank of Pakistan study estimates that 70.3% of the common items Pakistan exports have unit values less or equal to the Indian imports unit values (See Table A4.2 In Appendix 4). Although this differential might represent quality, it still indicates the scope for the export of these items simply by producing the quality India requires.

145. Similarly, Indian exports cover almost 53% of Pakistan's total import items,<sup>40</sup> and it is estimated that the average cost savings by importing from India (if the current list of positive items is expanded) would range from \$400 million to \$900 million per year (See Table A4.3 in Appendix 4).

146. Of the list of possible import and export items identified for trade between India and Pakistan by various studies, the most significant are discussed in detail below:

147. *Textiles*: Trade liberalization in this sector is perceived as detrimental because of the comparative advantage in the same industry for both countries. However, as argued earlier, similarity of comparative advantage does not rule out the gains from intra-industry trade. Based on New Trade theory, if India and Pakistan specialize in differentiated products in the textile industry there are potential benefits from trade. Pakistan has a reputation for supplying quality bed-linen and home textiles, knitwear, and certain cotton fabrics. India has an edge in Georgette and some other silk products (Amin 2008) and in blended textile products manufactured from a combination of manmade and natural fibers, preferred worldwide as raw materials in clothing.

148. *Industrial Machinery and Equipment*: Although Pakistan is a major producer and exporter of textile products, it meets its requirements for textile machinery and spares through imports from Europe and East Asia. Pakistan's industry could therefore consider the

<sup>39</sup> There were about 1,181 '8-digit-level' items worth \$3.9 billion common between Pakistan's exports and India's imports during fiscal year (FY)2004, covering 45% of the total number of items exported by Pakistan. These pertain to major sectors like textiles and textile articles, prepared foodstuffs, spirits and vinegar etc., raw hide and skins, leather, fur skins, etc., mineral products, plastics, rubber, vegetable products, machinery, mechanical appliances and electrical equipment, etc.

<sup>40</sup> In FY04, there were 2,646 common items of Pakistan's imports worth over \$7 billion (which accounts for 53% of total import items and 47% of the aggregate value of imports)

import of textile and other machinery from India, which is of reasonable quality and comparatively cheaper. In India, the 8<sup>th</sup> largest producer of crude steel, a large portion of the machinery needs of the textile industry mills are met indigenously, compared with Pakistan, where textile machinery and spares are imported from East Asia and Europe. Presently, textile equipment from India is on Pakistan's negative list and is therefore imported through informal channels — from Dubai or alternative circular trade routes (See Section III-D-iii). Pakistani companies already import about \$3.5 million worth of spare parts and light machinery (for example, needles for weaving and knitting machines) annually from India through the informal trade network via Dubai and Hong Kong, China.<sup>41</sup> Thus, there would be substantial gains from trade if Pakistan removed Indian manufactured machinery and equipment from its negative list. A vast scope for the import of certain components from India could also facilitate the emergence of technology-intensive industries in Pakistan, such as auto components, bicycle components, components for the machine tools industry, components of textile machinery, and components of electrical and electronic machinery.

149. *Automotive Components and Spare Parts:* India, with its substantial industrial and engineering base making it the second largest manufacturer of two-wheelers and tractors and the fifth largest producer of commercial vehicles, is able to produce a wide range of passenger and commercial vehicles and their spare parts 35% cheaper than Pakistan can. Annually, Pakistan imports around \$775 million worth of automobile components and spare parts, 95% from Japan. If India could be used as an additional source of supply, Pakistan could save around \$155 per year on the cost of imported auto parts (Amin 2008), reducing the cost of locally produced vehicles and their spares.

150. *Pharmaceuticals:* Pakistan's chemical industry has by and large developed on a fragmented and ad hoc basis because of a combination of factors, such as a small local market and high tariffs. This leaves it with a lack of economies of scale and uncompetitive, and makes the country highly dependent on imported chemicals to meet the needs of its agriculture and industrial sectors. By contrast, the Indian chemical industry is the twelfth largest in the world and third in Asia. The price of pharmaceutical products produced by local as well as multinational corporations, helped by a huge market, is three to seven times cheaper in India than in Pakistan (Amin 2008). India also produces a substantial amount of local herbal medicines and health products that have a reasonably sized market in Pakistan. Presently, many such products are entering the Pakistani market through illegal or third-country sources.

151. *Petroleum:* Pakistan imports about \$1.72 billion in petroleum products annually, including 4,014,439 metric tons of diesel worth \$919 million, mostly from Kuwait and Saudi Arabia. But it disallows imports from India. India exports diesel of more than 5 million tons (annually), including as far away as Latin America. Clearly, the proximity and associated economics of the two countries mean diesel imports from India to Pakistan would be advantageous to both. Indian companies, such as Reliance Petroleum and the state-owned Indian Oil Corporation are well poised to meet this demand. India is the only country in the South Asian region that has naphtha cracking. Pakistan exports naphtha and could put up a naphtha cracker plant in collaboration with India; after meeting its own requirements, it could export the surplus to other countries in the region.

152. *Iron and Steel:* Unlike Pakistan, India has a well-established steel industry, producing the whole range of steel products, of which it is a net exporter. Helped by abundant raw materials, highly skilled technical manpower, and competitive labor, India is the eighth largest crude steel producer and largest producer of sponge iron in the world. Pakistan's iron and steel product imports from India are just a small fraction of its total imports. About 46 items have been identified as potential imports because they are cheaper to import from

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<sup>41</sup> All Pakistan Textile Mills Association

India (based on the lower unit value relative to the rest of the world) (Amin 2008).

153. The nature, level, and range of products in which trade may take place between the India and Pakistan will essentially depend upon the success achieved in reducing the transaction, search and market information costs of trade through the removal of the range of tariff and non-tariff barriers discussed in section III.<sup>42</sup>

b. Opportunities for intraregional trade between other SAARC countries

154. *Trade Opportunities between Bangladesh and India:* There are several sectors in which Bangladesh and India can move from a competitive relationship towards a rediscovery of lost complementarity. Jute is one example, while the ready-made garments of Bangladesh and the textile industry of India are two others (Harun 2008). The phasing out of the textile quota system in 2005 has left South Asian exports more vulnerable to competition from other developing countries. The EU has allowed Bangladesh special market access if its raw material is sourced regionally under a regional accumulation system. In the case of Bangladesh, only 65% of total exports to the EU can access the Generalized System of Preferences because of noncompliance with rules of origin. With regional accumulation, that could increase to 90%. If Bangladesh accepted regional accumulation, there could be a significant increase in intraregional trade. Unfortunately, as of early 2009, the powerful textile manufacturing lobby in Bangladesh had prevailed on the government not to accept regional agglomeration.

155. *Trade Opportunities between Pakistan, Bangladesh, India and Sri Lanka:* Based on the Grubel Lloyd Index (GL Index) calculated in Table A4.1 in Appendix 4, the potential for intraregional trade can be analyzed for each of the major trading partners in SAARC. Based on the rise of the GL Index for Sri Lanka in 2004 relative to 1991, there is big potential for trade between Sri Lanka and Bangladesh in the manufactures, textiles and other manufactures sectors. There is also potential between Sri Lanka and India (in the agricultural raw materials sector) and Sri Lanka and Pakistan in the agricultural materials sector. Table A4.I shows the potential between India and Bangladesh and between Pakistan and Bangladesh in the agricultural raw materials sector, and between India and Pakistan in the textiles sector.

156. Other advantages that would flow from greater intraregional trade would include: (i) shorter distances, making it unnecessary for domestic industry in each country to carry large inventories of raw materials, intermediate goods, and parts, thereby reducing the cost of operations and the country's overall trade deficit, while also improving allocation of scarce resources; (ii) cooperation in the agriculture sector could turn out to be beneficial to farmers. India's success in raising yield per acre<sup>43</sup> through better extension services, research, seed, irrigation, and mechanical technologies offers opportunities that agriculturists in other countries can exploit; and (iii) the opening up trade would also have a salutary effect on prices. By depressing inflation rates it would ease the inflationary burden in the region.<sup>44</sup>

<sup>42</sup> See Section III for details on the types of trade barriers restricting greater intraregional trade between India and Pakistan

<sup>43</sup> These differentials have, however, narrowed significantly over time.

<sup>44</sup> For instance, in view of the recent shortage of wheat in the country, Pakistan could decide to import wheat from India rather than from Australia/the US, since this would be a cheaper option.

## **C. Trade in Services**

### **i. Introduction**

157. The services sector is another that has not received the attention it deserves for the benefits that would flow to all in the region. This section discusses the potential in this area in detail.

158. Falling transport and communication costs have enabled the relocation of labor-intensive production facilities, while the IT revolution has opened up similar opportunities in the services sector. Technological developments and innovations have sharply reduced the costs of communication and transportation and modified the geographical distribution of economic powers, forcing industries to adapt to these changes. The boom in microelectronics and telecommunications has changed the nature of markets and shifted the balance of economic power between domestic classes, countries, and continents, creating new channels of social mobility, while rendering many old skills and jobs obsolete.

### **ii. Limited options in strategy based on exports of labor-intensive goods**

159. When the East Asian countries chose an economic growth strategy based on the export of labor-intensive goods, they had to modify their industrial capability to one based on greater intensity of technology and capital as their advantage from low wage costs was neutralized. The effect was that industries manufacturing more labor-intensive products relocated to lower cost locations in the neighborhood, without unduly encumbering marketing and management capability, since the risks of moving to a new country with similar cultures and institutions were much more manageable. The neighboring countries gained from the adoption of this industrialization strategy, not only because of the economic growth that it generated, but also because the success of such an initiative provided comfort to other potential investors as they learned from the experiences of the early entrants. This approach also helped change attitudes toward foreign investment, in the media in particular and civil society in general, encouraging FDI to shift production facilities to lower cost locations, reinforcing and extending the “neighborhood advantage”.

160. However, Southeast Asia's export-oriented growth strategy cannot be easily replicated in South Asia along the lines of the “flying geese” pattern of growth. The PRC has a large labor force that will make it possible for it to remain a low cost producer for the world for many years to come in that the rise in wage costs in coastal areas (where industry is presently located) will induce labor-intensive industries to shift inland, a more cost efficient move than relocating to another country. With the emergence of the PRC as the low cost manufacturing workshop of the world, the potential for South Asia to adopt an export-oriented strategy based on the production of goods is perhaps somewhat limited. With a huge labor force and a world economy under stress because of large trade imbalances, it would not be practical and feasible for South Asia to adopt a growth strategy predicated on the export of manufactured goods. In any case, the era of vast armies of labor working on assembly lines is over.

161. Furthermore, multinational corporations are not simply attracted by low costs. They also consider other factors to diversify their sources of supply. And even when they decide to diversify they would prefer to be in the PRC's neighborhood, and look at Cambodia, Indonesia, the Lao People's Democratic Republic the Philippines, and Viet Nam as potential sources of production rather than South Asia. Other factors also militate against South Asia as a source, including the attitude of the bureaucracy toward market forces and the private sector, an overregulated business environment, poor quality physical and related infrastructure, outdated labor laws, and, in some countries, fairly strong trade unions.

162. For South Asia the greatest potential exists in the agriculture sector when it comes to the production of consumer goods, which would require investment to maintain the quality of the farm produce and to augment post-harvest treatments of high value-added crops such as fruits and vegetables and cold-chain facilities.

### **iii. Strategy for South Asia based on exports of services**

163. As noted above, services also offer significant potential. Services contribute almost 55% of the region's GDP. This is also the fastest growing component of world trade, accelerating at a rate faster than the trade in goods over the last 15–20 years, suggesting that services can play an instrumental role in the rapid economic growth of the region and in reducing poverty. Mattoo et al. (2001) show that economies with liberalized financial and telecommunications sectors grew 1.5% points faster on average than other countries.

164. By reducing the importance of transportation costs, the IT revolution has reinforced concepts like comparative advantage based on factors of production that still remain immobile (e.g. labor), in a world otherwise characterized by free-flowing finance, technology, information, and services. The new communications technology has brought new areas, such as services (computer software, consultancy), into the framework.

165. Traditionally, goods were seen as tradables and services as non-tradables. Moreover, services were not tradable across time and space. Now they can be exported via the internet and even stored electronically and used a long time after they have been produced. In the information age, services do not have to be consumed where and when produced. As noted earlier, IT advances mean that services can now be traded across geographical boundaries and time barriers.

166. As such, they can be included as components in the comparative advantage of developing countries, that is, the export of labor-intensive services (typing, programming, call centers, and so on). The tradability of services across space, the reduced attraction of large markets, and the shrinking importance of economies of scale are combining to allow developing countries to sell their labor-intensive services, since outsourcing of labor-intensive and relatively simple tasks has now become possible, for example, in call centers, data entry, transcription services, and data processing). And modern technology has made it possible to break up service producing processes into several smaller processes (the equivalent of division of labor) that enables the production of the final service product for delivery. Moreover, with growing capability, service users are becoming increasingly confident of the ability of off-shore service providers to deliver even sophisticated quality services in a timely manner.

167. Indeed, the major advances in IT and communications mean that South Asia can consider an export-oriented model based on services rather like the role played by manufactured exports in the development of Southeast Asia. It can exploit its position as a supplier of services since India being comparatively advanced in higher level skills has already established its credentials as a lead supplier of communication and IT/computer based digital services globally (Table 4.5). It has become a global hub for outsourcing of information and telecommunication services.

**Table 4.5 Computer and Information Services Exports (\$ billions)**

Country	2008	2007	2006	2005	2000
India	48.3	37.0	29.2	22.0	6.3
Ireland	34.2	26.1	21.0	19.6	7.5
Germany	15.1	12.2	9.7	8.4	3.8
UK	12.9	14.1	13.0	11.2	4.3
US	12.6	12.7	10.3	7.3	5.6
Finland	8.2	1.3	1.5	1.5	0.2
Sweden	7.6	6.5	3.6	2.7	1.2
Israel	6.9	5.8	5.3	4.5	4.2
Netherlands	6.7	4.2	3.9	3.7	1.2
PRC	6.3	4.3	3.0	1.8	0.4

PRC = People's Republic of China

Source: Economic and Political Weekly (2010).

168. India has graduated from a provider of low-level skills in these sectors to one of relatively higher-level skills. Other countries in the region, particularly Pakistan and Bangladesh, being better placed to export labor-intensive services, can latch on to the lead of Indian suppliers by offering to become part of the supply chain of services, providing lower level skills at competitive rates. Young labor forces with relative proficiency in English (owing to a common history of British colonialism) and available in large numbers to work at low wages, coupled with and the stress being placed in the region on higher education, can enable Indian entrepreneurs to play the same role as Japanese businesses did in Southeast Asia by establishing facilities across borders to benefit from the lower wages. This would allow all to gain from the advantage of being in the neighborhood. Those buying these services would be able to reduce risks by diversifying sources, without necessarily increasing their costs, by opting for the provision of less sophisticated services and processes by India's neighbors. The constraints posed by poor transportation infrastructure and managerial and marketing structures that require physical presence, which apply to goods, would not apply for services.

169. Sri Lanka with its smaller population but higher literacy and educational skills, and relatively low-cost office rental space, can benefit from developing expertise in a niche area such as corporate services, accounting, finance, human resources, and legal services.

#### **iv. Needs of the services sector route**

170. The services sector needs a different kind of infrastructure—fiber-optic networks, broadband connectivity, international gateway uplink facilities, facilities for producing a work force with higher education, and technical skills and availability of financing for investment in these areas. Much of this does not require large investment to provide and to build upon since some of it is already available in relative abundance in the region. This compares with the big investment needed for physical infrastructure, such as roads, rail links, ports, and so on, for the movement of goods. Moreover, services agreements are relatively easier to negotiate between those with broadly common cultures, at roughly similar levels of development, and at short distances from each other. For a wide range of service transactions, the proximity of consumers and service providers is important and hence easier mobility of people is critical. However, barriers to trade in services tend to be more complicated than tariff and non-tariff barriers. The impact of regulations pertaining to professional and technical qualifications, standards for licensing and certification, limitations on the movement of people and other policy and procedural restrictions, are difficult to identify and quantify.

**v. Spillover effects of such a strategy**

171. A strategy emphasizing the services sector will, in turn, set into motion a growth process that will spill over into the rest of the economy as other sectors adopt new technologies, processes, building all round managerial capacity and facilitating the transformation of the whole economy. Capital accumulation, higher incomes, and growth in employment will augment domestic demand, reinforcing the process of growth on a sustainable basis.

172. Among the direct effects, the liberalization of services will contribute to the growth of a middle class, which tends to be more consumer-oriented, as has been reconfirmed by the recent experience of India, creating demand for housing and a wide range of consumer goods and personal services and generating employment even for those with limited education and skills. The expansion of the middle class, with more refined demands and tastes, will spawn the development of a modern retail infrastructure of shopping malls and supermarkets, which would give domestic manufacturers experience in large-scale supplying of graded and quality goods, and a track record of meeting the stringent standards of global supply chains, thereby establishing their credentials as potential suppliers/exporters of a whole range of products in international markets, including agricultural fresh produce (Hamid 2007). This would also develop the skills of retail supervisors and managers and generate employment for better educated South Asians globally. The indirect effects would be equally, if not more, significant and widespread.

## **V. Deepening Investment Integration in South Asia**

### **A. Introduction**

173. The preceding sections highlighted the potential gains from intraregional trade in South Asia. However, these would be underused unless complemented by activities aimed at attracting greater intraregional and extra-regional FDI. This section reviews the economic rationale for increasing investment integration in South Asia in light of the successful experience of the East Asian countries with regional investment integration. The section argues that there is potential for deepening investment integration in South Asia through increased vertical intra-industry investment between key industries where there is potential for product fragmentation.

174. Empirical studies confirm the economic benefits of intraregional and extra-regional FDI in the South Asian countries. Agarwal (2000) showed that FDI inflows in South Asia led to greater domestic investment and faster economic growth, particularly during the late 1980s and early 1990s. Bosworth, Collins, and Virmani (2007) found that augmenting FDI in India was likely to stimulate economic growth. Bergman (2006) demonstrated that FDI in the pharmaceutical industry in India had positive spillover effects, including greater competition and improved industrial management skills.

175. A vast body of literature on trade-investment links in Southeast Asia suggests intraregional trade and cross-border investment mutually reinforce each other in the drive to achieve greater regional integration. Kumar and Singh (2009) suggest that increased intraregional trade will follow from higher flows of cross-border investment. India's investment induced trade from Sri Lanka to India under the Sri Lanka India bilateral FTA, giving more credence to economic theory on the trade-investment nexus. Thus efforts, to enhance trade between SAARC member countries must be complemented by initiatives to facilitate cross-border investment.

176. The ADB-UNCTAD (2008) study argues that the lowering of tariffs following SAFTA will attract FDI from outside the region into South Asia. The study also shows that SAFTA may not only increase intraregional trade, but also attract more vertically integrated FDI into the region.<sup>45</sup> And by reducing the negative lists and removing non-tariff barriers, the relationship between trade and investment can be reinforced.

### **B. Trends in Inward and Intraregional FDI for SAARC Countries**

177. South Asia's performance has on intraregional and extra-regional foreign direct investment has been poor compared to other regions. Although total FDI inflows to South Asia increased more than 8 times from 1996 to 2006, the share of South Asia in total world FDI inflows was still less than 2% (in 2006) (Table 5.1). Table 5.2 presents the inflow of FDI by country over 1996–2006. India is by far the leading host country for FDI in the region. It received around \$19.4 billion in fiscal year (FY) 2006, or about 80% of total regional FDI (Table 5.2). India's dominance in FDI in South Asia is in large part due to the size of its economy and its recent investment liberalization policies. Other countries in the region that also fared well were Pakistan, with FDI growth that year of 136.5%, and Sri Lanka (92.7%). Nepal suffered from net FDI outflows in FY2006.

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<sup>45</sup> The study estimates that lowering tariffs on other SAFTA members may explain 30% of the rise in inward FDI.



**Table 5.1 Share in World FDI of Selected Regions and South Asia**

Year	EU	USA	PRC	ASEAN	S. Asia	World	EU	USA	PRC	ASEAN	S. Asia
	\$ million					Share in World FDI (%)					
1996	124811	84455	41726	30490	3359	392743	31.78	21.50	10.62	7.76	0.86
1997	142400	103398	45257	34307	5371	489243	29.11	21.13	9.25	7.01	1.10
1998	281000	174434	45463	22276	3889	709303	39.62	24.59	6.41	3.14	0.55
1999	502636	283376	40319	28766	3234	1098896	45.74	25.79	3.67	2.62	0.29
2000	695277	314007	40715	23540	4658	1411366	49.26	22.25	2.88	1.67	0.33
2001	381558	159461	46878	20729	6415	832567	45.83	19.15	5.63	2.49	0.77
2002	307345	74457	52743	18024	6984	621995	49.41	11.97	8.48	2.90	1.12
2003	256707	53146	53505	24491	5469	564078	45.51	9.42	9.49	4.34	0.97
2004	204245	135826	60630	35245	7601	742143	27.52	18.30	8.17	4.75	1.02
2005	486409	101025	72406	41071	9866	945795	51.43	10.68	7.66	4.34	1.04
2006	530976	175394	69468	51483	22274	1305852	40.66	13.43	5.32	3.94	1.71

ASEAN = Association of Southeast Asian Nations; EU = European Union;  
 FDI = foreign direct investment; PRC = People's Republic of China;  
 US = United States  
 Source: UNCTAD (2007)

**Table 5.2 Net FDI Inflows for South Asian Countries (2005–2006)**

	FDI (\$ million)		Annual Growth (%)	Share of Reg'l FDI Total (%)
	2005	2006		
Afghanistan	271	231	(14.8)	1.0
Bangladesh	800	743	(7.1)	3.1
Bhutan	9	6	(32.2)	0.0
India	7,661	19,442	153.8	79.9
Maldives	10	14	46.3	0.1
Nepal	2	(6)	(441.6)	0.0
Pakistan	1,459	3,451	136.5	14.2
Sri Lanka	234	451	92.7	1.9

FDI = foreign direct investment  
 Source: ADB 2007.

178. South Asia's intraregional FDI flows have also been poor compared to other regions in Asia. Of all SAARC countries, only India has been investing to some extent in the South Asian countries within the region, investments going mainly to Sri Lanka and Nepal. In Sri Lanka, 2.6% of foreign investment has come from India, while in Nepal, Indian investments contributed 51% of total investments. This is due in part also to low domestic savings rates in the region, other than in India.

## **C. Barriers to Investment**

### **i. Introduction**

179. South Asian countries, which had open economies in the immediate post-independence period in the 1940s, had become some of the most protectionist economies in the world by the 1970s. However, this started to change in the late 1970s. In 1977 Sri Lanka initiated a process of policy liberalization, and other countries followed in the 1980s (Weerakoon 2010). But this liberalization process was hesitant and uneven across countries. It was in the early 1990s, with the initiation of a major reform process in India, that the process picked up pace in the region. Although by the end of the decade some important

policy barriers to foreign investment remained substantial, progress had been made. However, reform was sporadic and country specific, with no emphasis on regional level initiatives to attract investment in South Asia. This section of the report will discuss the existing barriers that limit FDI levels.

## ii. Overview of foreign direct investment in South Asia

180. The potential for investment within South Asian countries has not been fully exploited. The stock/level of FDI as a share of GDP has historically been low in South Asia (Dutz 2010) at 2% in 2006. Table 5.3 shows that FDI is highest in India, followed by Pakistan and Bangladesh.

**Table 5.3 Foreign Direct Investment in South Asia in 2008**

Country	FDI (\$ million)	As % of GDP
Afghanistan	288.4*	3%**
Bangladesh	652.8*	1%*
Bhutan	78.3	7.1%*
India	34,982	3.1%
Maldives	15 *	1.4%**
Nepal	1.0	0%
Pakistan	5,438	3.8%
Sri Lanka	752	1.8%
<b>South Asia</b>	<b>42,207.5</b>	<b>1.01%</b>

\*2007 figures; \*\*2006 figures

Source: ADB Key Indicators (2009) and own calculations.

181. The Logistical Performance Indicators that report rankings for foreign ownership for South Asian countries are summarized in Table 5.4 below.

**Table 5.4 Foreign Ownership in South Asian Countries**

Country	Foreign ownership (rankings)*
Bangladesh	99
India	65
Nepal	129
Pakistan	101
Sri Lanka	73

\*Out of 133 countries.

Source: Logistical Performance Indicators (2010).

182. The foreign ownership rankings (a proxy for foreign investment in these South Asian countries) indicate that, with the exception of India and Sri Lanka, foreign investment in South Asia remains low. Nepal, for instance, is ranked at 129 of the 133 countries surveyed, with none of the South Asian countries ranked among the top 50 countries.

183. Intraregional investment levels in South Asia are also low. Of the 1,232 FDI projects in South Asia from 2002 to 2004, only 31, 2.5% of total foreign investment, was intraregional in origin (Dutz 2010). The largest foreign investors in the region over this period were the large, OECD economies, with the US accounting for 561 projects, the United Kingdom 151 projects, Germany 64, Japan 52, and France 39 (Dutz 2010). By contrast, the level of intraregional investment in Southeast Asia (as well as the PRC) was more than three times higher, with 339 of the reported 4,458 projects being intraregional in origin (the PRC alone accounted for 2,836 of these projects, or more than twice the number of FDI projects received by all of South Asia) (Dutz 2010).

### iii. An Overview of barriers to investment in South Asia

184. The constraints to investment in the South Asian region include the small size of individual country markets, institutional barriers, (the costs of doing business, the absence of harmonized frameworks on competition and infrastructure), infrastructural barriers, (inadequate access to reliable and reasonable priced infrastructure services), financial barriers (controls on banking and the movement of capital), and barriers specific to intraregional investment, all of which have failed to unify regional markets.

185. A major constraint to investment in the region is the lack of regional cooperation on harmonization of regulations, the quality of infrastructure and associated logistics and financial policies with respect to capital flows, policy regimes with respect to trade and foreign investments not matching international best practices, the environment for investment reflected in bureaucratic procedures. There is potential for greater investment by harmonizing regulatory mechanisms, as held out by the experience of the North American Free Trade Agreement (NAFTA) and of the EU (Dutz 2010). As a result of such reforms, the proportion of FDI to GDP in Mexico increased from 1.1% in 1980–85 to 3.0% in 1994–2001 (Dutz 2010). In the Czech Republic and Poland, regulatory harmonization and integration with the EU contributed to increases in the proportion of FDI to GDP from 1.7 to 10.7% between 1993–94 and 2000–02 in the Czech Republic and from 1.9% to 3.6% in Poland (Dutz 2010).

186. The lack of similar efforts to reform domestic institutions and laws to conform to global investment standards is a major reason for the failure of FDI flows into South Asia.

187. The specific institutional, infrastructural, and financial policy barriers to investment have been discussed in the context of some of the larger economies in South Asia, India, Pakistan, Bangladesh, Nepal and Sri Lanka.

#### a. Institutional barriers to investment

188. Institutional barriers to investment in South Asia include difficulties in registering property, enforcing contracts, hiring labor, and closing businesses. The costs of investing in South Asia are considerably higher than the costs of investment in the OECD or the East Asian countries, as can be concluded from Table 5.5.

**Table 5.5 Comparative Analysis of Barriers to Doing Business in South Asia**

	South Asia	OECD countries	East Asia
Time to register property (days)	55	34	51
Cost of registering property (% of property value)	6.1	4.8	4.2
Time to enforce contracts (days)	375	230	325
Cost of enforcing contracts (% of debt value)	42	6	43
Difficulty of hiring workers (index)	37	26	20

Source: Dutz (2010)

189. As can be observed from the table, the time and cost to register property in South Asia is the highest of the three regions taken into consideration, at 55 days and at 6.1% of

the value of property. In East Asia and the high-income OECD countries, it costs about 4% and, in the OECD countries, takes 21 fewer days to register property.

190. Similarly, the cost of enforcing contracts is the highest for South Asia, at 375 days.

191. The hiring and firing index indicates that labor management issues are more difficult in South Asia compared to the high income OECD and East Asian countries.

192. The cost of closing a business is also the highest in the South Asian region, followed by East Asia, and the OECD economies. The cost essentially translates in to 78.6 cents not recovered per dollar invested, which is 9 cents more than the loss for East Asian economies and about 50 cents more than the cost for OECD economies.

193. Within South Asia the institutional barriers to investment, in terms of starting a business, hiring labor, registering property, protecting investors, and enforcing contracts are summarized in Table 5.6. India has the highest barriers to starting a business in South Asia, followed by Bangladesh and Nepal. Pakistan and Sri Lanka have some of the lowest costs of starting a business in the region. However, Bangladesh, India, Pakistan and Sri Lanka tend to have high costs for registering property, 10% of value of property in Bangladesh, 7.2% in India and Pakistan, and 5% in Sri Lanka. Enforcement of contracts, due to weak institutions and governance structures in South Asian countries, remains poor, with costs of enforcement being as high as 63% of the value of a claim in Bangladesh, 40% in India, and 23% in Pakistan and Sri Lanka.

**Table 5.6 Barriers to Investment**

	<b>AFG</b>	<b>BAN</b>	<b>BHU</b>	<b>IND</b>	<b>MAL</b>	<b>NEP</b>	<b>PAK</b>	<b>SRI</b>
<b>Starting a business (Rank)</b>	<b>23</b>	<b>98</b>	<b>80</b>	<b>169</b>	<b>49</b>	<b>87</b>	<b>63</b>	<b>41</b>
Procedures	4	7	8	13	5	7	10	4
Time (days)	7	44	46	30	9	31	20	38
Cost (% per capita)	30.2	36.2	8	66.1	10	53.6	5.8	5.9
Minimum capital (% income per capita)	0	0	0	210.9	4	0	0	0
<b>Employing workers (rank)</b>	<b>69</b>	<b>124</b>	<b>12</b>	<b>104</b>	<b>41</b>	<b>148</b>	<b>146</b>	<b>96</b>
Difficulty of hiring (index)	0	44	0	0	33	67	78	0
<b>Registering property (rank)</b>	<b>164</b>	<b>176</b>	<b>41</b>	<b>93</b>	<b>183</b>	<b>26</b>	<b>119</b>	<b>148</b>
Procedures	9	8	5	5	-	3	6	8
Time (days)	250	245	64	44	-	5	50	83
Cost (\$)	4	10.2	0	7.4	-	4.8	7.2	5.1
<b>Protecting investors (rank)</b>	<b>183</b>	<b>20</b>	<b>132</b>	<b>41</b>	<b>73</b>	<b>73</b>	<b>27</b>	<b>73</b>
<b>Enforcing contracts (rank)</b>	<b>164</b>	<b>180</b>	<b>33</b>	<b>182</b>	<b>92</b>	<b>122</b>	<b>158</b>	<b>137</b>
Procedures	47	41	47	46	41	39	47	40
Time (days)	1,642	1,442	225	1,420	665	73.5	976	1,318
Cost (% of claim)	25	63.3	0.1	39.6	16.5	26.8	23.8	22.8

- = not available

AFG = Afghanistan, BAN = Bangladesh, BHU = Bhutan, IND = India, MAL = Maldives, NEP = Nepal, PAK = Pakistan, SRI = Sri Lanka

Source: World Bank, Doing Business Report 2010.

#### b. Infrastructural barriers to investment

194. Inadequate infrastructure, reflected in the poor quality of electricity supply and quality of telecommunications infrastructure is a major weakness (with Pakistan, India, Nepal, and Bangladesh, ranking among the lowest 33 countries surveyed).

**Table 5.7 Infrastructure Quality in South Asia**

<b>Countries</b>	<b>Quality of electricity supply (rankings)</b>	<b>Quality of telecommunications infrastructure (rankings)</b>
Pakistan	124	107
India	106	103
Bangladesh	128	117
Nepal	133	105
Sri Lanka	72	69

Source: World Bank Logistical Performance Indicators (2010).

195. India's real blended cost of power in 2003 was 74% higher than Malaysia's and 39% higher than the PRC's (World Bank 2004). In India, manufacturers faced up to 17 significant power outages every month, compared to one per month in Malaysia and less than 5 per month in the PRC (World Bank 2004). In Pakistan, the reliable supply of secure power in the last two years has become a significant barrier to operations with the country, ranking it amongst the worst ten countries in terms of quality of power infrastructure. The cost of power, calculated as a loss in annual sales, is 5.6%, compared to a 2% loss in the PRC (Dutz 2010). In Bangladesh, 73% of large formal firms, 58% of urban informal firms, and 54% of rural enterprises cite erratic power supply as a major constraint to doing business (ADB 2009), while Nepal ranks the lowest on quality of power supply.

196. The rankings for telecommunications infrastructure are similarly low for the region, as can be seen from Table 5.7. Sri Lanka appears to be the exception to the rule, performing better on infrastructure, ranking at 72 for electricity supply and 69 for telecommunications infrastructure.

197. India is the only country in the region that has attempted to improve infrastructure through FDIs; allowing for 100% automatic FDI (i.e. complete foreign ownership) in infrastructure related sectors of the economy (ADB 2009).

#### c. Financial barriers to investment

198. In this section we look at the financial constraints on investment including, (i) macroeconomic instability, (ii) restrictions on capital movement, and (iii) weak banking sector and financial institutions.

##### *i. Macro economic instability:*

199. The overall macroeconomic indicators for the South Asian region, including large fiscal deficits, high rates of inflation, and price and exchange rate volatility, discourage FDI. Both Sri Lanka and Pakistan had to resort to IMF loans in 2008 and 2009, largely because of poor economic management. In Sri Lanka, loose monetary policy between 2004 and 2007, combined with spiraling global commodity prices, had inflation peaking at 28% in June 2008 and the Sri Lankan Rupee (soft pegged to the US Dollar) lost 11% of its value in 6 months from 24 October 2008 to 24 April 2009. Pakistan faced a similar situation, with inflation reaching 28% in mid-2009 in the wake of expanding fiscal deficits financed by monetary expansion by the central bank. The fiscal situation in both countries has not fully stabilized and long-term price stability therefore remains in doubt. Current political instability and generally poor security (connected to the war on terror in Pakistan) and the recent civil conflict in Sri Lanka have also contributed to the destabilization of the economies of the two countries.

200. Economic and political instability in Nepal has also been responsible for poor inflows of FDI, putting pressure on foreign exchange reserves and the current account balance (ADB 2009).

*ii. Restrictions on capital flows:*

201. There are strict controls on the movement of capital between different countries in the region, raising the cost of direct and portfolio investment. Movements of capital are highly restricted in Bangladesh and Nepal, although Pakistan, India, and Sri Lanka also tend to rank among the lowest 60 countries for restrictions placed on capital investments (See Appendix 5 for a summary of policies in both countries).

**Table 5.8 South Asian Openness to Capital Flows**

<b>Countries</b>	<b>Restrictions on capital flows (rankings)</b>
Pakistan	74
India	73
Bangladesh	118
Nepal	119
Sri Lanka	79

Source: Logistical Performance Indicators (2010)

*iii. Poor banking and other financial institutions*

202. Adequate financial infrastructure—including banking, insurance, a clearance mechanism, and capital markets—is required to facilitate trade and investment. In South Asia, this sector is neither fully developed nor does it have adequate depth, while the network is both insufficient and fragile. With the exception of India, the region has weak capital markets. Banking sectors, except to some extent in Pakistan, are saddled with huge non-performing assets, indicating the serious need for reforms (Jain 2010). Banking systems have also not been reformed to respond to and attract foreign investment. There are restrictions on foreign ownership of domestic banks and entry of foreign banks into the domestic market, generally through the use of high capital entry requirements (Dutz 2010). Moreover, India and Pakistan do not allow bank ownership in each other's territory (Taneja 2007).

*d. Intraregional barriers to investment*

203. For the reasons indicated above intraregional FDI levels also remain low. As the largest economy in the region, India is best equipped to invest in other South Asia countries and does have the highest investments. However, owing to fear of its regional dominance, other countries are reluctant to permit Indian investments without restrictions (Jain 2010). And tensions between India and Pakistan have meant that there is very limited exchange of investments between these two countries.

204. Pakistan has so far made bilateral investment agreements with 46 countries (except India) during 1959–2004 (SBP. n.d.). At present there are no joint ventures between the two countries (SBP. n.d.). In Bangladesh, the implementation of projects registered from South Asia is much lower than for other countries, because of the greater bureaucratic scrutiny of such projects (ADB 2009).

*e. Barriers to trade facilitation*

205. Barriers to trade facilitation, already discussed in Section III of the report, also serve as barriers to investment. By raising the cost of production and affecting competitiveness, these factors provide a disincentive to investment. Some of the constraints to trade facilitation, including behind the border, logistics related rules, inefficient and differing cross-border facilities and customs procedures, stringent standard and specification procedures, all raise the cost of investment in South Asian economies.

206. From the discussion above it is apparent that there is potential for regional cooperation by improving the policies and procedures governing FDI.

#### **D. Southeast Asia's Experience with Investment Integration: The Success of Vertical Intra-Industry Trade and the Trade-Investment Nexus**

207. Having examined limited extra-regional and intraregional FDI in South Asia, we now explore Southeast Asia's success in attracting both types of FDI and invigorating the trade-investment nexus through product fragmentation networks in industrial production. Appendix 5 provides an overview of the trade and investment policies individual ASEAN countries undertook in their increased external orientation. It is important to note that ASEAN's regional integration was driven by inward FDI from outside the region as opposed to intra-ASEAN investment (see Figure A5.1, Appendix 5 for the extent of extra-regional and intraregional FDI in ASEAN).

208. Japanese and US multinational enterprises were the key drivers of the trade-investment nexus in the ASEAN countries (Figure A5.2, Appendix 5) that established intraregional production links, taking advantage of the asymmetries in comparative factor advantages in the region to create regional production networks (De and Jayaratne 2009). International firms choose to engage in international production and locate plants or affiliates abroad based on the cost of inputs such as labor, availability of natural resources, the availability and quality of infrastructure, the degree of political stability, and the quality of macroeconomic policies, factors that made ASEAN an attractive region for FDI.<sup>46</sup>

#### **Box 5.1 Moving Manufactured-Exports to Asia—the Supporting Factors**

Several major factors drove the move of labor-intensive manufacturing industries to developing countries, with Asia the largest beneficiary.

First, greater trade liberalization under the General Agreement on Tariffs and Trade resulted in the reduction of tariff and non-tariff barriers to trade in the manufacturing sector.

Second, the continuous reduction in transport and communication costs made it cost-effective to shift industry to cheaper locations and improved the reliability and timeliness of the delivery of products. Improvements in telecommunications, information technology, and logistics made it possible both to develop and manage refined supply chains and the greater sub-division of the manufacturing process, allowing the expansion of intra-industry trade.

While these factors applied to all developing countries, two factors tilted the balance in favor of the Southeast Asian countries.

(i) They were quick to exploit opportunity as it arose, while other developing countries pursued an industrial strategy based on import substitution and high tariff barriers. Perhaps because they were geographically closer to Japan, the Southeast Asian countries were more influenced by the latter's approach to industrialization. Political leadership also played a critical role in actively courting FDI, the success of early investors attracting others.

(ii) The electronics/semiconductor industry came into existence in the 1960s, and because there were no facilities in the developed countries, the investments were made on the basis of locations that would be most cost-efficient. Attracted by the Southeast Asian countries' marketing efforts, manufacturers and assemblers made their choices.

<sup>46</sup> See Appendix 5 for details on the macroeconomic and investment policy environment that attracted multinational corporations to ASEAN

209. The role of the multinationals was central to the success of ASEAN's export growth and production networks. These firms "sliced up"<sup>47</sup> their production processes into segments, outsourcing low-value segments to ASEAN countries with low labor costs or (cheap) natural resources, such as Malaysia, and higher value-added segments to countries that had a comparative advantage in skilled labor and efficient infrastructure, such as Singapore. Initially the foreign multinational corporations arriving in Southeast Asia were reluctant to source material from local suppliers because of concerns about quality and reliability, instead relying on import sourcing. Southeast Asian governments acted proactively, providing financial and technical support to local small and medium enterprises, helping them emerge as local suppliers that could provide critical components and services to support the manufacturing operations of the large multinational corporations. Over time, local and regional suppliers began providing higher standards and lower costs, adding to the locational advantages of the region and helping ASEAN replace the "Asian Tigers" (Hong Kong, China, the Republic of Korea, and Taipei, China) as regional suppliers. Singapore's Creative, for example, established itself as the leading global supplier of sound cards.

210. Moreover, trade and investment by multinational corporations in the Southeast Asian countries were seen to mutually reinforce each other, paving the way to greater investment integration in the region. Policies that allowed or enhanced regional cooperation, such as the ASEAN Free Trade Agreement (AFTA), enabled multinationals to implement regional production divisions and achieve greater economies of scale. Firms were able to exploit the diversity of the region more efficiently and cost effectively. Accelerated preferential trading agreements among ASEAN members under AFTA, for example, led to a complete eradication of tariffs and stimulated the sourcing of materials and components within member states, helping cement trade links.

## **E. Deepening Investment Integration in South Asia: The Case for Intra-Industry Investment**

### **i. Introduction**

211. As noted in Section IV, intra-industry trade in South Asia has increased in sectors such as agricultural raw materials, chemicals, and textiles, indicating that countries are beginning to specialize in products at different stages of production, and manufactured goods now make up a larger share of overall trade.

212. To realize the full gains of growing intra-industry trade, however, it is essential to invigorate the trade-investment nexus between SAARC member countries. For this, member countries need to invest in certain key industries where there is scope for product fragmentation.<sup>48</sup>

### **ii. Textiles and clothing**

213. FDI can play an important role in this production fragmentation or intra-industry vertical integration (with integration being easier in countries with open trade policies than in those with fragmented local markets). Modern technology has made specialization and the dispersal of production processes in any industry feasible by ensuring the integration of the different stages of production. For example, it is possible to stitch a shirt in Sri Lanka using yarn spun in Pakistan, converted into fabric in Nepal, cut in Bangladesh, and designed on

<sup>47</sup> This is in line with 'New Trade' theory models that incorporate FDI.

<sup>48</sup> Product fragmentation refers to cross-border dispersion of component production/assembly within vertically integrated processes, with each country specializing in a particular stage of the production sequence and trading the value-added components to create a final product



computerized systems in India. In other words, different combinations of inputs, such as labor with a broad mix of skills ranging from labor intensive processes requiring basic level skills to those requiring higher level skills and knowledge, can be used in the production of goods based on comparative advantage of factor costs. India and Pakistan could therefore be net exporters of textile products, such as yarn and fabric, and Bangladesh and Sri Lanka net exporters of garments yet net importers of woven cloth.

214. Development of each subsector based on comparative advantage—with supporting investments in logistics, physical infrastructure, and trade facilitation—would not only help achieve economies of scale, it would make the region a more efficient supplier as delivery periods are reduced, risks decline, and the costs of carrying inventory are lowered.

215. As demonstrated in Section IV (Box 4.2, Appendix 4), despite the tremendous potential for intraregional product fragmentation in textiles, intraregional investment in this sector has been rather limited. The largest South Asian investment in the region has been by Brandix (see Box 5.2 in Appendix 5), a large Sri Lankan apparel exporter. A 1,000 acre industrial park, set up in India in 2005 with an investment of \$750 million is expected to grow to \$3 billion in 5 years and will supply fabric to Brandix plants in Sri Lanka. Brandix hopes to use the large and fast growing Indian market to attain economies of scale and for new markets (De Mel and Jayaratne 2009).

216. As noted in Section III, the lack of a conducive investment climate, low bureaucratic barriers, restrictions on capital flows, and considerable bilateral mistrust between members are among the main reasons for low intra-industry investment between SAARC member countries. ASEAN's success with product fragmentation suggests that multinational corporations looking for locational advantages are the main drivers of intra-industry vertical integration (for instance, Japanese investment in ASEAN). This requires a simplified investment environment with low bureaucratic barriers and ease of capital flows between borders.

217. The other general impediments to investment are quite similar across the region. Common themes include poor infrastructure—particularly energy and transport—limited access to high quality human resources (there is variation between countries in this case), bureaucratic red tape, conflict (in particular, Nepal, Pakistan, and Sri Lanka), and complex tax structures.

218. Given the potential benefits of production fragmentation in textiles and clothing, the South Asian countries should strive towards greater cooperation, making use of their complementary competitive advantages and their shared geography. A strategic emphasis of the unique strengths of each South Asian country would improve the clothing and textile sector in the entire region. The needed institutional framework to support this would include a regional investment protocol/agreement, along with improved trade facilitation, infrastructure development, and tariff reductions through further improvement of SAFTA.

### **iii. Automobile sector**

219. India has a comparative advantage in producing automobile components and the automobile component industry has advantages such as low labor costs, the availability of skilled labor, and systemic vendor development. Indian automobile components are 10% to 25% cheaper than global prices, facilitating the growth of the industry for both domestic consumption and for exports. By 2005/06, exports had risen to \$1.8 billion. The US and Europe, with high "accepted quality levels", absorb over 60% of India's export of automobile components (Mohnot 2007).

220. Pakistan's automotive industry has been import driven and depends largely on

imports from the PRC, Japan, Republic of Korea, the US and even India. It is tilted more towards assembly than manufacturing. The inadequacy of the supply chain in the matter of availability of good quality components at competitive prices, limits competitive strength and healthy and efficient development of the industry. Hence, if Pakistan imports more components from India at a much cheaper price than from the PRC Japan, the Republic of Korea, and the US, the cost assembling and repairing of automobiles will be cheaper. Similarly, the rest of the South Asian countries who import a large amount of components from outside the region could also look towards India.

221. However, as mentioned in Section IV, the main reason for the lack of intra-industry trade in this area is the high tariffs on automobile parts and components. Production fragmentation in automobile production in South Asia will become increasingly attractive as factor costs in India increase, however, as De Mel and Jayaratne (2009) suggest. Given India's comparative strength in the production of higher technology motor vehicles and final assembly, it would make sense to produce lower technology components in other South Asian countries and export them to India.

222. Natural resource availability in individual countries could also help locate production facilities—for instance, Sri Lanka's access to natural rubber makes it an excellent candidate for tire production. This is already happening to some extent with a joint venture between India's CEAT Ltd. (a tire manufacturer) and Sri Lanka's Kelani Tyres Ltd., which produces tires for export to South America and India. For the success of such arrangements in the sector, other countries in the region will need to ease tariffs on trade in parts and components. This will be a challenge for some countries, however, given the fiscal importance of tariffs on motor vehicles and parts. The security situation in Pakistan and Sri Lanka and non economic/political factors constrain economic integration, making investors reluctant to commit to the large-scale capital-intensive investments that characterize the automobile sector.

#### **F. ASEAN's Experience with Investment Integration: Policy Implications for South Asia**

223. Fully exploiting a region's locational advantage requires that the enlargement in the trade of goods and services proceeds simultaneously with investment in production networks and facilities. Combined with preferential treatment under a regional arrangement such as SAFTA, this approach improves market size and access and helps expand the export capacities of smaller countries.

224. While the fiscal incentives and subsidized inputs may initially be attractive to investors, as they were in ASEAN, their role diminishes quickly. In the short term, they can serve as "carrots" to attract investors, but because these incentives are easily imitated, in the medium- to long-term the quality of human resources, macroeconomic stability, and the quality of infrastructure are more important. Macroeconomic stability is particularly crucial because high inflation and exchange rate fluctuations could undermine competitiveness, with components crossing borders several times in a short period before final assembly and export. While the ASEAN countries have maintained a high level of macroeconomic stability, South Asia has fared relatively poorly in this regard. Appendix 5, comparing the macroeconomic policies of the ASEAN countries with the SAARC countries, suggests that greater investment integration between SAARC countries requires better macroeconomic management, particularly in Bangladesh, Pakistan, and Sri Lanka.

225. ASEAN's experience also highlights the importance of creating export processing zones (EPZ). Japanese and other East Asian countries shifted production to ASEAN countries once factor costs in those countries had increased, and continued to export to final markets in the West via Singapore. The role of the EPZs (see Appendix 5) that linked

countries in the region was important not just for providing access to subsidized infrastructure, duty free inputs, and fiscal incentives, but also, most importantly, in providing relatively smooth bureaucratic processing. Indeed, it is essential to industries and production processes that are time sensitive. The EPZs provided the ideal environment for agglomeration and the benefits of increasing returns to scale as firms took advantage of shared infrastructure that was a common requirement of several firms engaged in the same or similar stages of the value chain.

226. The measures the ASEAN countries adopted to integrate local small and medium enterprises (SME) into larger global supply chains, especially Singapore and Malaysia, provide important lessons for South Asia. The ASEAN experience suggests that governments in South Asia should create links between SMEs and global firms through the provision of information on possible avenues of collaboration and by supporting the expansion of supply capacities.

227. More technologically advanced production and research and development is needed in India, and to some extent in Pakistan, while Sri Lanka has comparative advantages in logistical and transport services, making it a suitable location for linking with final consumers. Other countries in the region, such as Nepal and Bangladesh, have abundant labor, but are constrained by the relatively low skill level of the workforce (see Figure A5.9, Appendix 5. for human resource capacity and skill levels in SAARC member countries). Singapore made a particularly special effort to ensure that labor skills were continuously upgraded (through its National Productivity Board and Vocational and Industrial Training Board), recognizing that labor had to be competitive through higher skill levels and expertise

228. In addition to the inadequate quality of human resources, South Asian countries will also need to overcome problems of poor connectivity and lack of adequate energy and transport infrastructure. Countries such as Nepal and Bhutan are landlocked and hemmed in by a challenging terrain. Such conditions are not conducive for effective participation in fragmenting production chains, particularly in time-sensitive sectors.

## **G. The Way Forward**

229. As already discussed, there is a need for regional cooperation along the lines of NAFTA and the EU to streamline and coordinate regulatory mechanisms, lower the costs of doing business, and attract investment.

230. And as the regional giant, India has a major role to play in improving the stock of FDI in South Asia through direct investment and by indicating to other countries ways to reform their financial and regulatory systems. For instance, India has strong equity and capital markets and is in a position to help smaller economies develop stock exchanges and to train stockbrokers and other intermediaries (Jain 2010). To date, Sri Lanka is the only country with which India has reached a MOU on securities markets, although discussions are also under way with Pakistan and Nepal (Jain 2010). India should explore similar MOUs with the rest of SAARC.

231. To address the fears of asymmetry of gains from trade, India, as the overwhelmingly dominant economy, also needs to play a more proactive role in the region. ASEAN did not face such fears, despite Indonesia's greater size, because it was viewed as a benign force.

232. In Pakistan and India, mutual distrust and suspicions in civil and military bureaucracies, especially after the violent activities of militant groups in recent years, have stalled integration. Pressures are building in favor of cooperation within civil society, influencing the political environment, as partly reflected in better regional coordination under the SAARC umbrella. But the rigid attitudes of these institutions have not changed radically.

Chambers of trade and commerce in both countries have created platforms for greater regional exchange, but to date they have had limited success in persuading their respective governments to redouble their efforts for regional economic integration.

233. By contrast, the European countries, which fought two major world wars and vary significantly in economic strengths, still decided to come together because they saw it to be mutually beneficial. Similarly, ASEAN+3 member countries have been able to achieve regional integration despite the region's long-standing history of territorial disputes, such as between Malaysia and Singapore, Thailand and Myanmar, or the PRC and Japan. ASEAN and East Asian governments had the vision to acknowledge the importance of economic factors in invigorating growth. They focused their efforts and committed to regionalism for stimulating growth through exploitation of economies of scale and to present one voice in their negotiations with other regional blocks to enhance their bargaining position.

234. Without resolving political-economic barriers to regional investment integration, all other efforts to spur the trade-investment nexus in South Asia may not succeed.

## VI. Cross-Border Infrastructure

### A. The Economic Rationale for Investment in Cross-Border Infrastructure in South Asia

235. Maximizing the gains from regional integration in South Asia entails more than just the removal of tariff and para-tariff barriers to trade. Improvements in the availability and quality of physical infrastructure to enhance market access and ensure a reliable supply of reasonably priced energy will have to complement trade facilitation and investment integration efforts.

236. Better infrastructure, either through the linking of major regional transport and energy corridors or simplification of documentation requirements at border points, is crucial to maximizing the benefits of intraregional trade. De (2009) estimates a positive and direct relationship between infrastructure stock and per capita income in South Asia—a 1% increase in the stock of infrastructure has been associated with a 1% increase in per capita income (see Table 6.1 and Figure 6.1).<sup>49</sup>

**Table 6.1 Infrastructure and Income in South Asia**

Country	1991		2000		2005	
	IDI	PCI	IDI	PCI	IDI	PCI
India	3.48	313.74	3.95	452.98	4.49	588.44
Sri Lanka	2.57	595.04	3.18	843.63	4.35	1001.93
Pakistan	2.39	472.61	2.26	531.00	2.89	595.56
Bangladesh	1.83	286.10	2.12	365.33	2.50	432.63
Nepal	1.29	182.76	1.37	224.66	1.38	233.91
Correlation coefficient	0.432*		0.568*		0.825**	

IDI = Infrastructure Development Index and includes transport, ICT, energy, and banking. PCI = Per Capita Income (at constant 2000 \$). Afghanistan, Bhutan, Maldives were ignored due to insufficient data.

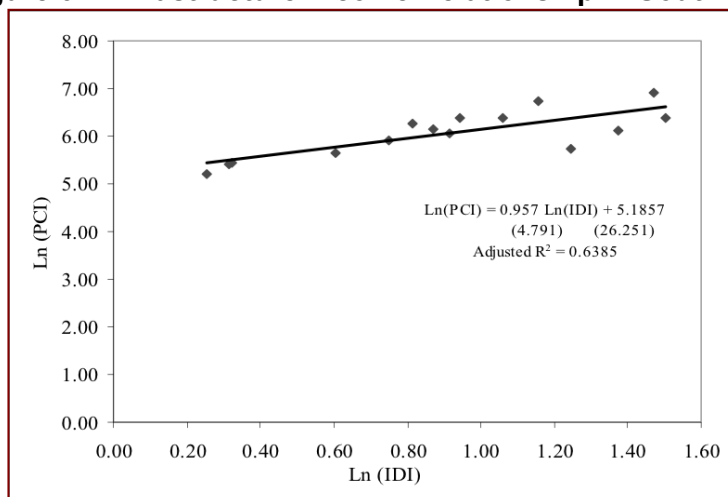
\*Significant at 5% level. \*\*Significant at 1% level.

Sources: De (2009) using IDI scores taken from Kumar and De (2008); PCI sourced from World Bank, World Development Indicators.

237. De (2005a, 2006, 2007, 2008a, 2008b) estimates that countries with geographical contiguity, such as in South Asia, can gain substantially from greater trade, provided that infrastructure and trade costs are lowered. If transport costs are prohibitive, no amount of tariff reduction will be adequate to enhance trade volumes. Limao and Venables (2001) find that domestic infrastructure explains 40% of trade transportation costs for coastal countries, while domestic and transit country infrastructure accounts for 60% of trade transportation costs in landlocked countries. Their estimate of the elasticity of trade for transport costs ranges between -2 and -3.5.

238. Greater regional integration through investment in infrastructure and trade facilitation can also boost extra and intraregional FDI. Easing infrastructural constraints would allow foreign investors to see the integrated, seamless market of South Asia as a destination for production fragmentation and intra-industry investment. (See section V).

<sup>49</sup> Economic theory and evidence also tells us that higher road density is a significant explanatory variable for improved life expectancy at birth.

**Figure 6.1 Infrastructure-Income Relationship in South Asia**

Data arranged in cross-section pooled framework for the years 1991, 2000 and 2005 for Bangladesh, India, Nepal, Pakistan, and Sri Lanka. Data in parentheses are t-values, significant at 1% level.

IDI = Infrastructure Development Index (scores),

PCI = per capita income (at constant 2000 \$)

Sources: Kumar and De (2008) and World Bank, World Development Indicators 2008.

239. Given the importance of infrastructure for intraregional economic integration, this section looks at the quantity and quality of infrastructural facilities in the region and assesses the need for investment in two crucial components: transport infrastructure and logistics and energy.

#### **i. Infrastructural facilities in South Asia**

240. Quantity is low and quality is poor in comparison with most other regions (Table 6.2). South Asia has invested less than 4% of GDP in infrastructure since 2000, compared with Viet Nam (8%) and India (10%) (Ahmed and Ghani 2008).<sup>50</sup> Harris (2008) argues that to be able to grow at 8% a year, South Asia will have to invest at least 7.6% of GDP to upgrade infrastructure.

<sup>50</sup> Most of the improvements since the early 1990s concentrated only in the development of national road networks and communications infrastructure (Table 6.1 in Appendix 6).

**Table 6.2 Comparing South Asian Infrastructure to Other Regions**

	Electric Power Consumption per capita kWh 2006	Landline and Mobile phone subscribers per 100 people, 2008	Internet users per 100 people, 2007	Percentage paved roads, 2000-06
Bangladesh	146.43	28.74	0.32	9.5
Bhutan	665	40.55	5.92	62
India	502.76	33.75	7.2	47.4
Nepal	79.74	14.12	1.41	56.8
Pakistan	480.09	55.67	10.77	65
Sri Lanka	400.08	72.08	3.86	81
South Asia	453.34	26.07	6.63	56.9
East Asia & Pacific	1665.46	65.89	15.13	
Europe & Central Asia	3845.32	120	23.44	
Latin America & Caribbean	1812.28	85.48	26.57	
Middle East & North Africa	1394.47	66.45	13.44	
Sub-Saharan Africa	534	24.62	3.85	

Source: World Bank, World Development Indicators (2008)

241. Four aspects of infrastructural development, comprising the Infrastructure Development Index, have been identified as critical to regional integration (i) transport and logistics, (ii) energy, (iii) information and communications technology (ICT) and (iv) banking. South Asia's infrastructure compares poorly with other regions.

a. Transport and logistics

242. High transportation costs are a major factor hindering increased intraregional trade and integration in South Asia. The World Bank's Doing Business database shows that the cost of trade in South Asia is only a little better than sub-Saharan Africa and much worse than in the high income countries (Table 5.5). Inadequacies in both transport ~~hardware~~ and ~~software~~ contribute to these costs. Cooperation on transport hardware requires investment in subregional transport corridors to ensure better intraregional connectivity for the faster movement of goods across borders, whereas cooperation in transport software calls for trade facilitation by overcoming institutional constraints and bottlenecks that harm regional competitiveness by making trade expensive.

b. Energy

243. A reliable and assured supply of quality power at reasonable rates is critical not only for maintaining industrial competitiveness, but also other infrastructural services, such as the internet and telecommunications. Electricity consumption is low and varies widely across South Asia, with the region consuming less than 500 kWh per person compared to more than 1,600 kWh per person in East Asia and the Pacific (Figure A6.1 in Appendix 6).<sup>51</sup> Not only is there a lack of cross-border transmission links, there is lack of adequate infrastructure even for transmitting power within a large number of countries.

<sup>51</sup> For details on the extent of energy shortages in South Asia and the potential for regional trade and investment in the energy sector, see subsection 6.1.

244. Moreover, the poor operational efficiency and creditworthiness of most power utilities in the region (arising from inadequate tariffs, high system losses, and poor collections) creates the perception that they are payment risks and unmanageable, discouraging trade with them. Widespread state ownership of the utilities, poor earnings, and inadequate internal cash generation to finance their own domestic needs—let alone the investments for export infrastructure—has served as a major handicap for the development of regional trade.

c. Information and communications technology

245. South Asia performs better on the quality of ICT in comparison with the rest of the world than it does on the quality of other physical infrastructure. (Table A6.1 in Appendix 6). However, despite these improvements, telephone density in South Asia is still low, at 26%, compared to 66% in East Asia and the Pacific and 85% in Latin America and the Caribbean (Figure 6.2 in Appendix 6).

246. Internet usage, continuing the trend of recent years, is likely to continue to increase rapidly globally in the years ahead (Figure A6.3 in Appendix 6). The development of telecommunications and internet infrastructure in the region can help promote trade in services, which will in turn help improve education, innovation and health (telemedicine) and the flow of ideas, technology, and investments (See more detailed discussion on this in Section IV on services).

d. Banking and payment systems

247. Adequate financial infrastructure, including banking, insurance, a clearance mechanism, and capital markets, is required to facilitate trade and investment integration in South Asia. The existing network of banking and payment, however, is insufficient and fragile, with capital markets weak throughout the region, except for India. Banking systems have not been reformed to respond to and attract foreign investment (Dutz 2010).<sup>52</sup>

## **B. Potential for Intraregional Trade and Investment in Energy**

248. Energy consumption is rising in South Asia as economies and populations grow and cities expand. Demand for energy is now growing 9% annually (on average), compared with 5.5% per year in the previous two decades, and the deficit in energy production has doubled. The region needs to secure adequate energy supply to sustain economic growth at high rates. While individual SAARC members have attempted to grapple with the ensuing energy shortages in their economies, closing the deficit calls for cooperation at the intraregional and inter-regional levels.

249. This section highlights the mismatch between energy resource distribution and the growth in demand for energy. Relatively smaller economies in the region, such as Nepal and Bhutan, having energy resources well in excess of their energy demand, while in India and Pakistan demand for energy is outstripping domestic supply. By identifying the complementarities in energy trade between countries, the section identifies two potential markets for energy trade and investment in South Asia—a western energy market (in which Central Asia and Iran would sell electricity and gas to Afghanistan and Pakistan and possibly to India) and an eastern energy market (in which Nepal, Bhutan, and perhaps Afghanistan, would export hydropower to India). In achieving this end, however, the real issues pertain to political economy, requiring further liberalization and deregulation of an inefficient energy sector, attracting foreign investment and developing an integrated infrastructure of production and transmission of gas and other energy resources.

<sup>52</sup> India and Pakistan, for instance, do not allow bank ownership in each other's territory (Taneja 2007).



### **i. The Imperative for Intraregional trade and investment in Energy**

250. As noted, the key impediment to achieving and sustaining high economic growth rates is the lack of adequate infrastructure, especially in the energy sector and in Bangladesh, India, and Pakistan. Easing this constraint through the sustainable provision of a secure energy supply remains a significant challenge.

251. There is tremendous scope for energy trade within South Asia and between South Asia and certain energy rich Western Asian countries. Table A6.2 in Appendix 6 shows the energy resource endowments in South Asia, and Table A6.3 shows the same for its neighbors. The energy resource endowments of the region and its neighbors are substantial, but are unevenly distributed among countries, making energy trade desirable to achieve the optimum benefits.

252. Within the region,<sup>53</sup> India and Pakistan have considerable hydropower potential, coal, and natural gas resources. But these are considered inadequate to meet the rapidly growing demand for energy. Bhutan and Nepal, by contrast, have hydropower resources far in excess of the possible requirements of their modest power systems and economies. Only a very small percentage of these resources have so far been developed. Investments in most of large, potential hydropower projects in Nepal (e.g. Karnauli, Pancheshwar, Sapta Koshi and West Seti) and Bhutan (e.g. Tala and Punatsangchu) would make sense only largely for exporting power to India and possibly to Bangladesh (Table A6.2 in Appendix 6). Bangladesh is widely believed to have very substantial natural gas reserves. Recent studies by the U.S. Geological Survey concluded that the country has undiscovered reserves of 935 billion cubic meters (32.1 trillion cubic feet) and on this basis has a reserves-to-production ratio of more than 104 years. This may represent notable potential for export of gas or export of power generated using the gas.

253. Trade and investment in energy is also feasible between South Asia and energy resource rich neighbors in Central Asia (See Table A6.3, Appendix 6 for energy resources in Myanmar, the Central Asian Republics, and Iran). Myanmar, Kazakhstan, Turkmenistan, and Uzbekistan, and Iran have notable gas or (gas- or coal-based power) export potential, while Tajikistan and the Kyrgyz Republic have substantial hydropower export potential.

### **ii. Identifying key areas for intraregional and inter-regional trade and investment in energy**

254. Given these energy complementarities and the demand-supply gaps, intraregional and inter-regional energy trade and investment in South Asia is expected to cluster around the two energy markets described under section VI-B (World Bank 2008). Bangladesh could also export gas or gas-based power to India, as could Myanmar potentially. India could import hydropower from Bhutan, Myanmar, and Nepal. And eventually, interconnection of the Indian and Pakistani power grids would create a regional electricity and gas market

<sup>53</sup> Of South Asia's current intraregional and inter-regional energy trade, only a handful of projects are of notable importance, primarily those involving energy imports by India from Bhutan and Nepal, Afghanistan's import of electricity from Central Asian countries, and Pakistan's electricity imports from Iran. Bhutan exports about 5,664 gigawatt hours (GWh) (FY 2007) to India from three hydropower projects, with a total generating capacity of 1,416 megawatts, constructed with substantial grant assistance from India. Nepal's power system, with limited transfer capacity, is interconnected with the power systems of the Indian states of Uttar Pradesh and Bihar by one 132 kilovolt (Kv) line, eleven 33 kV lines, and one 11 kV line. In FY2005, Nepal exported 110.7 GWh to India (or about 5.6% of its total sales) and imported 241.39 GWh from India (or about 9% of its total energy supply). The war-ravaged and fragmented power systems of Afghanistan rely significantly on imports of electricity from Iran, Tajikistan, Turkmenistan, and Uzbekistan, amounting to about 27.8% of the total supply (FY2005). Pakistan's electricity imports from Iran serve demand in Balochistan, which borders Iran and is isolated from the main integrated national electricity grid.

serving a population of 1.5 billion people, making it one of the largest in the world. Its sheer size would make it easier to mitigate the different risks, bear external shocks, reduce cost, create additional and more profitable trading opportunities, and attract appropriate levels and mix of investment.

**Table 6.3 Trade and Investment Possibilities in the Western Energy Market**

Importing Countries	Exporting Countries					
	CARs	Turkmenistan	Iran	Afghanistan	Pakistan	India
<b>CARs</b>	x	Some gas exports are possible; mutual electricity support	Unlikely (uncompetitive)	No scope	Limited (some emergency support possible)	No scope
<b>Turkmenistan</b>	Mutual electricity support	x	Unlikely (similarity of resources—gas; little scope in electricity)	No scope	No scope	No Scope
<b>Iran</b>	Limited power exports possible	Power exports are ongoing	x	No scope	No scope	No Scope
<b>Afghanistan</b>	Power exports are ongoing and should grow	Power exports are ongoing and should grow	Power export ongoing and may grow	x	Small cross-border power export possible	No scope
<b>Pakistan</b>	Potential for power exports	Significant potential for gas exports	Significant potential for gas export; cross-border electricity trade could grow	No scope for trade; Transit of electricity and gas	x	Mutual short-term trading support in power
<b>India</b>	Gas and power exports possible	Significant potential for gas exports	Significant potential for gas exports	No scope; Transit of gas	Mutual short-term trading support in power; transit of gas	x

Note: CARs in this table denote Tajikistan, Uzbekistan, Kyrgyz Republic, and Kazakhstan only. Dark gray color denotes that trade prospects are significant and are either being exploited or can be brought to fruition in the short-to-medium term. Medium purple color denotes that prospects of the trade are good and may materialize in the medium term. Light gray color denotes that prospects for the trade are more limited and may materialize in the medium-to-long term, and light purple color denotes that the prospects for the trade are weak.

Source: Krishnaswamy et al. (2006).

a. Trade and investment opportunities in the eastern energy market

255. Table 6.4 summarizes the possibilities for trade in the eastern energy market (World Bank 2008). Again, India's rapidly rising peak power demand and inability to meet it fully from domestic sources drive the market. Box 6.2 in Appendix 6 also details the opportunities for trade in the eastern market.

**Table 6.4 Trade and Investment Possibilities in the Eastern Energy Market**

Importing Countries	Exporting Countries					
	India	Bhutan	Nepal	Bangladesh	Sri Lanka	Myanmar
<b>India</b>	x	Significant quantities of hydropower (H)	Significant hydropower export possible	Significant amounts of gas or power possible. Some resource uncertainty	Some peak power support possible	Significant gas and power supply possible.
<b>Bhutan</b>	Dry season support	x	Unlikely; similarity of resources and seasonal shortages	Small amounts of thermal power and gas; connection via India (L)	No scope	Unlikely (far off; too small market)
<b>Nepal</b>	Thermal power support, dry season support	Unlikely; similarity of resources and seasonal shortages	x	Small amounts of thermal power and gas; connection via India (L)	No scope	Unlikely
<b>Bangladesh</b>	Sharing reserves; electricity swaps	Some hydropower; connection via India (L)	Some hydropower; connection via India (L)	x	No scope	Unlikely (although some potential in hydropower)
<b>Sri Lanka</b>	Dry season and thermal power support	Unlikely (far off)	Unlikely (far off)	Unlikely (far off)	x	Unlikely (far off)
<b>Myanmar</b>	No scope	Uncompetitive	Uncompetitive	Uncompetitive	No scope	x

*Note:* Dark gray color denotes that trade prospects are significant and are either being exploited or can be brought to fruition in the short-to-medium term. Medium purple color denotes that prospects of the trade are good and may materialize in the medium term. Light gray color denotes that prospects for the trade are more limited and may materialize in the medium-to-long term, and light purple color denotes that the prospects for the trade are weak.

*Source:* Krishnaswamy et al. (2006).

### iii. Promoting regional energy trade in SAARC

256. Policymakers need to look upon trade as diversifying the forms of energy and their sources of supply, thus enhancing energy security, rather than focusing on the costly and ill-affordable goal of complete domestic self-sufficiency. There is evidence that the region is gradually positioning itself for greater trade and cross-border investments in the energy sector.

257. Most investments in energy would perhaps be best structured as public-private partnerships (PPP), with equity shares for local partners and host governments and with the involvement of neutral third parties to mitigate a range of risks. Entrepreneurial investment initiatives with imaginative financing and risk mitigation strategies, possibly involving multilateral financing institutions as neutral parties to help build the confidence and mitigate risks, could help strengthen the virtuous circle of trade growth and regional peace.

258. The importing countries should promote sector reforms aimed at making the energy sector entities financially solvent and creditworthy trading partners, and providing a choice of

buyers to the exporters through the provision of non-discriminatory third party access to the transmission grid.

259. The exporting countries should ensure a stable and attractive investment environment, as well as a stable supply to domestic markets to mitigate the risk of energy exports being diverted to domestic consumption. Establishing and strengthening transparent, fair, and stable sector regulation, that does not discriminate between domestic and export markets, would significantly benefit regional trade in energy.

260. Strengthening regional institutions, both at the policy and technical level, to coordinate policy measures, exchange information, coordinate investment planning, develop congruous grid codes and operating procedures, and so on, would facilitate regional energy integration. Accession of the South Asian countries to the Energy Charter Treaty (ECT) (or developing a similar agreement at the SAARC level), could also help improve the investment climate in the sector and spur regional integration by signaling policy intent, providing a degree of investment protection and improving dispute resolution mechanisms.<sup>54</sup>

261. It must be pointed out, however, that national efforts alone cannot solve the problems of South Asia's energy deficit countries. Because a cross-border infrastructure network is a public good, building one requires formal frameworks for regional cooperation to ensure that all gain. Such cooperation can be readily expected if economic incentives and commercial interests are in place. Benefits from such energy-related investments may in turn foster the process of greater regional integration.

### **C. Potential for Intraregional Investment in Transport and Logistics**

262. While the departing British did leave integrated transport infrastructure in South Asia, political differences between countries and ensuing partitions after independence resulted in its decay. Examples of fractured infrastructure and the resulting high costs of trade arising from it include (i) the connection of the northeastern region of India with the rest of India through a narrow, overcrowded strip of land between Bangladesh and Nepal; (ii) the shipment of tea from Assam to Europe through the Kolkata port (a distance of 1,400 km from Assam) instead of the old route using the port of Chittagong in Bangladesh (barely 550 km; and (iii) trade between India and Bangladesh through Benapole (Bangladesh) and Petrapole (India), a significantly congested corridor with potential waiting time extending to 5 days for trucks. Moreover, not only is transferring cargo from one truck to another a problem, customs procedures are complex, with excessive documentation requirements and several processes and layers of approval to make shipments across borders (See section III for details on physical and other barriers to trade).

263. Transport costs are a significant determinant of a region's competitiveness, wherein an integrated and efficient transport network, alongside a regional transit mechanism for cross-border movement of goods and services, can play a pivotal role in integrating a region, significantly improving its trade competitiveness. Several studies have identified the absence of such a network and regional transit system as one of the key impediments to the full connectivity in South Asia (De 2005b, 2008c). It is now evident that higher intraregional trade will not be realized unless both transportation "hardware" (physical infrastructure) and transportation "software" (customs clearance and other facilitation measures, including multimodal transport operations) are improved.

264. Integration of South Asia's transport network is especially critical to Bhutan, Nepal,

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<sup>54</sup> The ECT provides a multilateral framework for energy trade, transfer, and investment. Afghanistan and Pakistan, among SAARC countries, are ECT observers. SAARC may associate collectively with the ECT, as did ASEAN.

and northeast India, where it could end their landlocked or semi-isolated status and provide shorter transport and transit links, including access to the sea.

265. In the past, there has been some development of the transport systems of some SAARC member countries, but this has been undertaken only in the national context, with limited consideration given to cross-border issues of compatibility, uniformity of standards in infrastructure, and acquisition of rolling stock and equipment. The 12th SAARC Summit in Islamabad, Pakistan in 2004 was the first regional initiative that called for strengthening cross-border transport, transit, and communications links across South Asia.

#### **i. Identification of priority transport corridors for development**

266. The ADB funded SAARC Regional Multimodal Transport Study (2006) identified 10 road, 5 rail, and 2 inland waterway corridors to establish an integrated transport system in South Asia for smooth and efficient movement of both goods and passengers. It also identified the major physical and non-physical barriers that inhibit the efficient movement of intraregional freight. By removing these constraints intraregional connectivity and trade will be enhanced. (See tables 6.4, 6.5, 6.6, 6.7 and 6.8 in Appendix 6)

#### **ii. Creating an enabling environment for an integrated South Asia**

267. Regional cooperation efforts are needed on the key issues identified below:

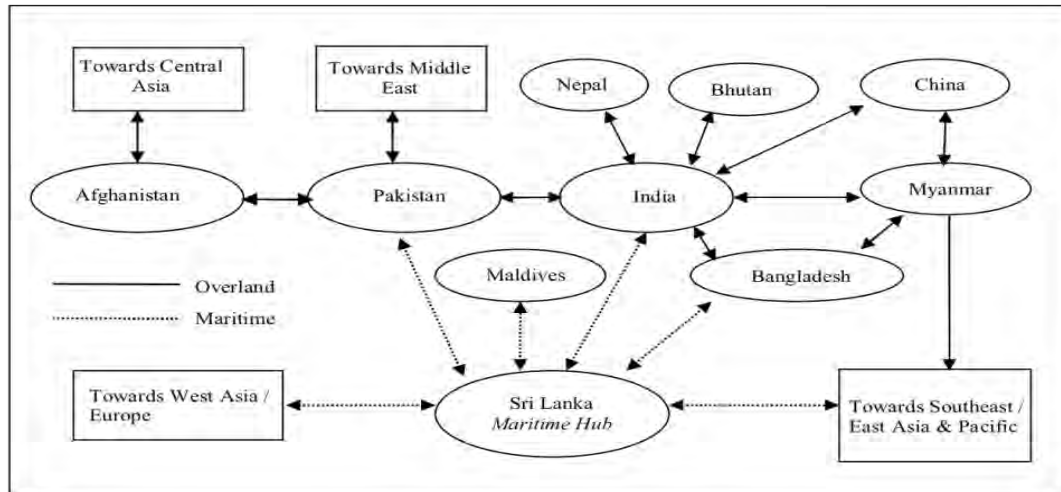
##### **a. Narrowing the infrastructure gap and initiatives for infrastructure financing**

268. The SAARC countries should cooperate on arranging the necessary finances for reducing the infrastructural gap in the region. The financing of transport infrastructure development is beyond the capacity of most least developed countries in South Asia, making it necessary to seek innovative financial instruments and institutional arrangements. In this context, a regional mechanism to mobilize the foreign exchange reserves held by the SAARC economies for the development of regional cross-border and national infrastructure could prove highly productive. South Asian countries should set up a South Asia Infrastructure Fund (De, 2009) to finance cross-border infrastructure projects. The fund could serve as the umbrella financial institution for SAARC infrastructure projects and program, particularly of the cross-border variety.

269. The large investment required to expand and upgrade transport infrastructure could come through a combination of public investment, PPPs, and exclusive private investments, wherever feasible. Bangladesh, India, and Pakistan have already established special purpose vehicles for the development of infrastructure. New instruments, such as viability gap funding to support infrastructure projects, currently by the Government of India, could be adopted by other South Asian countries.

##### **b. Towards a seamless Asia: Efforts to achieve both intraregional and inter-regional transport connectivity**

270. To realize the potential gains of trade from transport connectivity it is not only essential to improve subregional and regional movement of goods, but also to pursue the goal of a "seamless Asia" by promoting greater inter-regional connectivity. In this context, the proposed Afghanistan-Pakistan-India-Bangladesh-Myanmar (APIBM) Transport Corridor deserves high priority (See Table A6.9 in Appendix 6.).

**Figure 6.2 Potential Transport Hubs in South Asia**

Source: De (2009)

271. It can make Pakistan and Afghanistan hubs for India's trade with Central Asia, Iran, and the Middle East and Central Asia if accompanied by upgrading of infrastructure and land customs stations at the Afghan border with the Central Asian countries (Tajikistan, Turkmenistan, and Uzbekistan). Similarly, Bangladesh could become a hub for India's trade with Myanmar and other Southeast Asian countries, besides serving as a transit route for India's northeastern region. Myanmar itself will become a transit hub for India's trade with other ASEAN countries (see Figure 6.2). Sri Lanka is already well placed to be a maritime hub in South Asia, with a lot of India's trade transshipped through the port of Colombo. Apart from transit revenues, there are huge gains associated with energy conservation from efficient use of resources. This APIBM corridor could be Asia's new silk route, linking Central Asia and East Asia, with South Asia as the land bridge playing the role of a vital transport corridor for expanded trade and transportation.

## VII. Regional Cooperation to Promote Inclusive Growth in South Asia

### A. Introduction

272. South Asia's economic growth has been second only to East Asia's in recent years, with national savings and private sector investment rising and poverty dropping sharply from the high levels of the 1970s (Figure 7.1). But these developments have been accompanied by widening income disparities and growing imbalances, both between countries<sup>55</sup> and among regions within countries.<sup>56</sup> Roughly 60% of the poor, or half a billion people, live in the lagging regions.<sup>57</sup>

273. South Asia's experience shows that income growth and poverty are strongly and negatively correlated. With few exceptions, lagging regions, most of which are landlocked or border districts, exhibit a higher than average rate of poverty and lower than average per capita incomes (Figure 7.1 and Map 7.1). The majority of people living in laggard regions are rural and engaged in low productivity agriculture. Infrastructure in these subregions is poorer on average than in the other areas, even within the respective countries, with the border regions particularly more vulnerable to water shortages and flooding problems than other parts.<sup>58</sup> The growing divergence between lagging and leading regions suggests that the former are growing more slowly on average.

274. Earlier sections of the report discussed the various economic growth benefits of regional integration in South Asia. This section addresses the challenge of making this growth more inclusive through better integration of isolated subregions in the expanding regional economy.

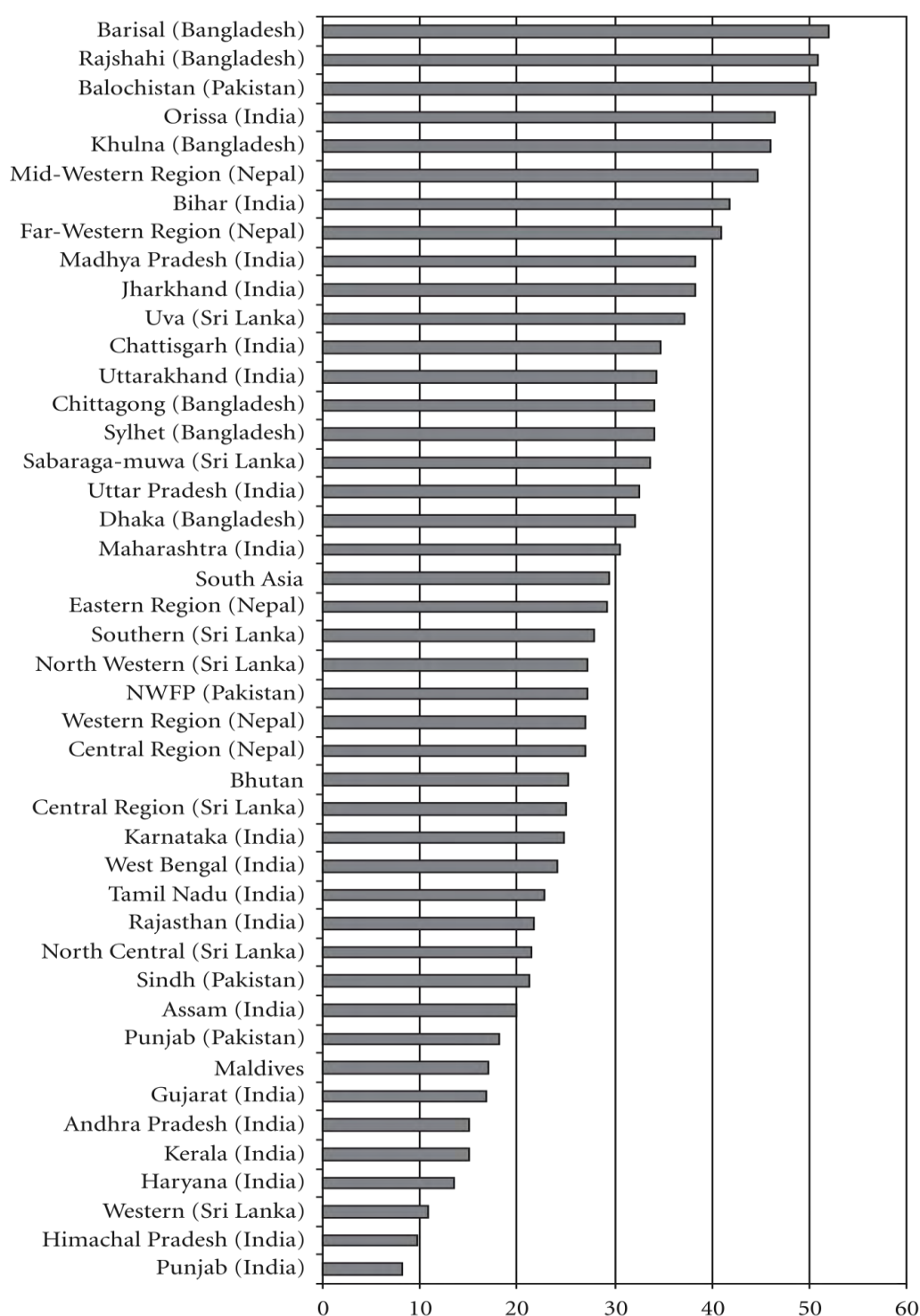
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<sup>55</sup> The differences in per capita income between SAARC members are large, ranging from a high of \$2,700 for Maldives (for 2006 measured in current US dollars) to a low of only \$250 for Afghanistan.

<sup>56</sup> From 1993 to 2004 Indian States such as Andhra Pradesh, Gujarat, Haryana, Karnataka, Kerala, Maharashtra, Punjab, Tamil Nadu, and West Bengal grew at just under 6% a year, twice that of Uttar Pradesh, Bihar, Madhya Pradesh, Orissa and Rajasthan. Similarly, since 2000, Punjab in Pakistan has been growing at more than twice the rate of Sindh Province and at a rate several times higher than the conflict ridden provinces of Northwest Frontier Province and Balochistan.

<sup>57</sup> A lagging region is defined as a poor region that does not grow as fast as the others, and its per capita income is low compared with national averages.

<sup>58</sup> An estimated 400 million people, many of whom are poor, directly or indirectly depend on the water flows of the three mighty rivers of Indus–Ganges–Brahmaputra for their livelihood. Frequent water shortages (and floods) create serious challenges to maintaining the income level of these large numbers of poor.

**Figure 7.1 Poverty Incidence in Leading and Lagging Regions (headcount percentage)**

Sources: Ahmed and Ghani (2008) using the following: Pakistan, World Bank staff; Sri Lanka, HIES 2002; Nepal, NLLS 2003–04; Bangladesh, HIES 2005; Bhutan, International Monetary Fund; Maldives, Asian Development Bank. Notes For India, data for poverty headcount rates are based on 2004–05; for Sri Lanka data for poverty are based on 2002; Pakistan on 2005–06; Bangladesh on 2005; Nepal on 2003–04; Bhutan on 2000; Maldives on 2004



## **B. Constraints to Inclusive Growth in South Asia: Why Have Lagging Regions Remained Underdeveloped?**

275. Even though South Asia, with its young labor force, enjoys a demographic advantage,<sup>59</sup> the region has not realized its growth potential, nor has growth been inclusive and pro-poor. One reason for high income disparities between leading and lagging regions is referred to as ‘first-nature’ geography— economic activity tends to concentrate in coastal urban areas (such as Maharashtra, Gujarat, and Tamil Nadu in India, and Karachi in Pakistan) because of their proximity to domestic and external markets and better logistical links between foreign suppliers and customers.<sup>60</sup>

276. Differences in the quantity and quality of physical infrastructure between regions (Ahmed and Ghani 2008), poor market integration resulting from high transportation costs, poor connectivity between regions and countries due to inadequate transport infrastructure, and low factor mobility and regulatory restrictions that prevent firms from taking advantage of scale economies are other key constraints on lagging subregions. A study on the EU shows that regional integration and the availability of financing managed to reduce the gap in the rates of economic growth between the relatively advanced and the lesser developed members (Cappelen et al. 2001).

277. Poor trade logistics and inadequate trade facilitation and complex customs clearance procedures tend to keep losses large, in the shape of time and money, for small, landlocked economies such as Afghanistan, Bhutan, and Nepal.<sup>61</sup> Better integration of markets through the provision of better quality physical infrastructure and logistics can accelerate growth simply by exploiting the advantages of agglomeration. The landlocked countries, in particular, would gain more from better access to markets. By opting for specialization and diversification into areas based on comparative advantage (e.g. high value crops) smaller economies could bypass limited markets and begin to extract the benefits of scale economies. For South Asia to take advantage of the growth benefits of its demography and geography, therefore, it needs to address the infrastructural deficits preventing the market integration of poor subregions with the more prosperous areas.

## **C. Promoting Inclusive Growth through Investment in Cross-Border Infrastructure**

278. Investment in cross-border infrastructure has both direct and indirect impacts on poverty (See Figure 7.2 and 7.3 in Appendix 7). Among the direct impacts are income-generating activities for local people and employment in construction, operation and maintenance activities.

279. Investment in transport infrastructure, particularly roads, reduces poverty directly by increasing access to markets, schools, and health services. Economic theory and evidence using cross country data also tells us that higher road density is a significant explanatory variable for greater life expectancy at birth (Srinivasan 2010). Given the direct positive impacts of investment in transport infrastructure in integrating laggard subregions and promoting inclusive growth, the ADB has supported both regional and subregional cooperation for investment in this area.

<sup>59</sup> South Asia accounts for only 3% of the world surface area, but it sustains an extraordinary 20% of the world population, nearly 1.5 billion people. It has the highest population density in the world, yet it has one of the lowest urbanization rates.

<sup>60</sup> Real GDP per capita growth rates in coastal states in India grew at 4.5% per year during the 1990s compared with 2.5% in landlocked states.

<sup>61</sup> See Section 3 for the high costs of trade in South Asia.

280. Under SASEC, the ADB has identified six key transport<sup>62</sup> corridors in the isolated subregions of Bangladesh, Bhutan, Nepal, and Northeast India, as well as the physical, operational, and institutional impediments that prevent market integration of these laggard regions with the more prosperous areas of their respective countries. Under SAARC ADB also supported the SAARC Regional Multimodal Transport Study, as noted earlier.

281. Increased access to communications infrastructure, meanwhile, helps reduce poverty directly by reducing information and transaction costs for small farmers and small businesses and by lowering the necessity of traveling for communications purposes. Grameen phone in Bangladesh, for example, shows how communications infrastructure can help—the poor use the phones for a variety of purposes, ranging from keeping in touch with family members abroad to organizing remittance transfers, inquiring about market prices, and consulting doctors.

282. Communications infrastructure, by providing more and better opportunities for participating in income earning ventures and activities, enhanced access to markets and education and health services, improved prospects for employment, and lower costs of transporting and buying goods and services, can play a huge and influential role both directly and indirectly in reducing poverty.

283. Infrastructure such as optical fiber cable links, complements physical infrastructure, private sector development, and rural livelihoods, enhancing pro-poor growth. ICT is also used for planning and monitoring the movement of cargo for expediting transactions in the supply chain.

284. The ADB has started a three-year information highway project under the SASEC program<sup>63</sup> aiming to integrate member countries through cross-border connectivity and reduce internet costs, particularly for the landlocked countries. Village networks, built to expand broadband wireless connectivity to rural communities, would provide better access to services such as tele-medicine, distance learning, and e-government services through community e-centers.

285. Infrastructure also affects poverty indirectly by increasing productivity and economic growth. Calderón and Servén (2004) provide an empirical evaluation of the impact of infrastructure development on economic growth and income distribution using a large panel data set encompassing over 100 countries and spanning 1960–2000. They find that growth is positively affected by the stock of infrastructure assets and income inequality declines with better infrastructure. Chen and Ravallion (2003) find that cross-border infrastructure, by reducing transportation/trade costs, increases trade and FDI flows in the region, resulting in efficiency in production and growth and thereby poverty reduction. Increased trade also reduces poverty by lowering the prices of goods the poor consume and helping get better prices for the goods they sell.

286. Based on ASEAN's successful experience, special economic zones in isolated subregions and border areas can also reduce unemployment and poverty by creating appropriate backward and forward links.

287. As noted earlier, however, the extent of the benefits of infrastructure requires complementary policies and investments. Maximizing benefits would require infrastructural

development within each country to complement cross-border improvements in infrastructure, for example, national feeder roads that link industrial/commercial centers and the border.

#### **D. Other Areas for Regional Cooperation to Reduce Poverty**

288. Regional cooperation initiatives should also focus on other factors that directly affect poverty levels in South Asia, such as food security.<sup>64</sup> The 2008 food price crisis pushed many households back into poverty; a 10% increase in food prices is estimated to increase the urban poor in India by 8 million, for example. The return to poverty is similarly large Pakistan (a 10% increase in food prices is estimated to push about 7.05 million people into poverty), as well as in Bangladesh (ADB 2008).

289. Individual countries in South Asia have put food security on their agendas, but there is need and scope for greater regional cooperation on the issue within the framework of SAARC. Low agricultural productivity and poor infrastructure connectivity are common problems. Many of the region's countries have similar agro-ecological zones, which in some cases cut across national boundaries, and face many of the same challenges in ensuring food security, especially for the urban poor. They can benefit from sharing experience and knowledge (FAO 2008). Regional cooperation could play an important role in the long-term response to the crisis and in helping to mitigate future shocks. The Colombo Statement on Food Security,<sup>65</sup> which created a SAARC Food Bank as a short-term measure to help countries weather periods of food shortage, is a good beginning. But an effective long-term response to the crisis must also include regional cooperation that encompasses water management<sup>66</sup> and climate change<sup>67</sup> issues.

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<sup>64</sup> Food expenditure as a proportion of total household expenditure of the poor is as high as 75% in Afghanistan and India and 63% in Sri Lanka. In Bangladesh, rice comprises 71% of the calorie intake per person in rural areas and 60% in urban areas. Higher food prices led poor people to limit their food consumption and shift to less balanced diets, causing nutritional deprivation in Bangladesh. (ADB 2008) PLEASE PROVIDE REFERENCE IN THE REFERENCE LIST – THIS SAID –SOUTH ASIA REGIONAL DEPARTMENT” – IT SHOULD BE ADB AND MENTION THE SPECIFIC DOCUMENT. ALL THE 2008 ADBs WILL HAVE TO BE PROPERLY NUMBERED TO DISTINGUISH (IE. 2008a, 2006b, etc.)

<sup>65</sup> The food price crisis was one of the key issues addressed at the 15th SAARC Summit held in Colombo in August 2008.

<sup>66</sup> South Asia, while being endowed by ample water resources, continues to suffer annually from floods and droughts and faces an increasing shortage of potable and irrigation water. Greater regional cooperation in the use and harnessing of trans-boundary rivers (the Ganges, the Brahmaputra, and the Meghna) and a cooperative approach toward river basin development is needed to effectively address water problems.

<sup>67</sup> The issue of climate change is particularly important to South Asia. Himalayan glaciers are among the fastest retreating glaciers globally, indications would suggest, as a result of global warming. The Himalayan glaciers feed into seven of Asia's greatest rivers (the Ganges, Indus, Brahmaputra, Salween, Mekong, Yangtze, and Huanghe), ensuring a year-round water supply to hundreds of millions of people in the Indian subcontinent and the PRC. As glacier water flows dwindle, not only is irrigation and agricultural production reduced, but the potential economic and environmental benefits from hydropower are also threatened.

## **VIII. Recommendations**

### **A. Introduction**

290. This section of the report develops recommendations for successful regional integration.

### **B. Trade Related Policy Issues**

291. The timelines for the lowering of tariffs to 0% by 2016 under SAFTA are too long and need to be shortened. Otherwise, this fact combined with the absence of any binding commitment to eliminate the negative lists in the face of other bilateral agreements or overlapping arrangements such as BIMSTEC, the Indian Ocean Rim and SASEC (the South Asia sub-regional Economic Cooperation) will fast make SAFTA irrelevant. To this end, India, given its size, base, and quality of human capital, as well as its desire to be recognized as a global player, will have to take on a disproportionately larger burden by opening up its markets quickly. In the same vein, Pakistan should grant India MFN status immediately if it is not to be marginalized in South Asia.

292. The scope of SAFTA should be expanded to include trade in services<sup>68</sup> and investment and thereby stimulate structural change in the region.

### **C. Non-Tariff Barriers**

293. There is a need to quickly reduce non-tariff barriers, including a movement towards a simplified and harmonized system of technical barriers to trade and sanitary and phytosanitary standards.

#### **i. Visas**

294. Visa restrictions for people-to-people interaction and cultural and trade exchanges should be eased, for example, by eliminating city-specific visas prior to entry and police reporting on arrival in India and Pakistan,.

#### **ii. Transport bottlenecks**

295. New road and rail links should be opened, while the rail protocol should be amended such that restrictions on wagon balancing are removed and wagon availability is improved.

296. The shipping protocol should be amended so that third country and non-national flagships can ply the Mumbai-Dubai sea route. This would help lower shipping costs.

#### **iii. Communications**

297. Uninterrupted telecommunications links are needed between SAARC member countries to facilitate trade.

#### **iv. Banking**

298. As there is evidence of anonymous transactions between trading partners, payments through formal channels assume a greater role. Currently, the payments system is formalized through the Asian Clearing Union which is inefficient, in that payments are often

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<sup>68</sup> The SAARC agreement on trade in services reached in the recent summit is a step in the right direction.

delayed. Institutional arrangements are needed to allow state, private, and foreign banks to participate freely in banking transactions.

299. There needs to be greater transparency to address problems related to the confirmation of L/Cs and to payments.

#### **v. Information exchange**

300. As new firms enter into trading relationships, trade needs to be facilitated through superior information exchange on commodities and quantities to be traded. Establishing web portals to provide this would perhaps allow the quickest implementation.

301. Information policy environments should be disseminated to traders in each country and made available on government websites, thus reducing the search costs of trading.

#### **vi. Other trade facilitation measures**

302. These would include standardization and simplification of customs cross-border procedures, such as harmonization of customs related procedures, IT software systems and bar codes to facilitate digital transfer of documents and approvals, electronic locking systems for containers, agreements on pre-shipment inspection protocols, and use of modern risk management techniques (many of which do not require any investment). Additionally, it should include accreditation of testing laboratories (if not the establishment of common testing facilities), the avoidance of double taxation, and cross-border agreements on the movement of goods and services.

### **D. Phased Approach**

303. The strategy to accelerate the process should be to identify a limited number of sectors and subsectors or even industries in which increased trade can produce quick welfare and related gains to create constituencies for enhanced regional cooperation and integration through the demonstration effect. These developments are likely to be facilitated by the new generation of professionals and entrepreneurs and greater inter-governmental cooperation. Sectors with potential for expanded trade include processed food, rubber products, plastics, chemicals, pharmaceuticals, footwear, textiles, apparel, light engineering goods, electronics, ceramics, paper, etc.

304. As argued in this paper, textiles and the automotive sectors can serve as important industries for integrating production processes. These industries are characterized by multi-layered production processes, the latter industry being essentially an assembly of a wide range of parts and components, some produced by relatively simpler mechanical processes to others produced by complex processes and technologies, enabling each country to develop specialization/core competence. Modern production technology enables the spatial distribution of the production of parts and components in a way that makes it possible to exploit the potential of scale economies as against earlier technologies that required the establishment of the entire assembly process in one location. Hence, the pattern of industrialization can be changed with countries specializing through the sub-division of production processes, using modern technology and the opportunities for trade provided by lower transportation costs and improved communication physical infrastructure and systems. This approach will lead to a change in the pattern of industrialization in the individual countries in the region. There will be a restructuring of industry as it adjusts to competitive forces, resulting in the development of a structure based on a real comparative advantage', say with the closure of the sugar industry in Pakistan (in which the country does not have a comparative advantage) and the growth of other subsectors of industry which are more competitive. And in the short-term, depending on the pace of adjustment, there would be

economic costs in the shape of loss of jobs and closure of some subsectors of industry. The managing of these costs will be challenging for the political and economic managers of each affected country.

305. However, for such greater intra-industry trade, investment in production capacities will be required across borders. The role of investment in creating supply capacities will play a critical role in catalyzing the investment-trade nexus in integration through inflows of FDI, and in diverting investments of Indian entrepreneurs away from the rest of the world towards the region.

## **E. Other Areas for Regional Cooperation and Coordination**

306. Economic and social development would be facilitated by expansion of tourism, regional cooperation and trade in energy and power through the inter-connection between national grids, through regional cooperation in the protection of the environment and by making the movement of products and people easier. The region is overly dependent on imported oil, and energy security can be assisted by regional cooperation in energy. Afghanistan, Bhutan and Nepal would benefit the most from the development of hydro power<sup>69</sup>, while Pakistan and Bangladesh have gas and India coal and petroleum products. Cooperation at the regional level can also be enhanced through investment in bio-gas and wind and solar energy.

307. Furthermore, there is a need to invest in the improvement of road and rail links, modification of meter gauges to broad gauges, warehousing or appropriately locating transshipment cargoes and locomotive exchanges. Improving connectivity through surface transport (including linking of ports to hinterlands) will facilitate trade and investment flows. An excellent example of such an infrastructure could be the development of an Afghanistan-Pakistan-India-Bangladesh-Myanmar transport corridor that could connect South Asia to Central Asia and East Asia.

308. The provision and upgrading of quality cross border physical infrastructure will enhance the potential for regional cooperation and integration in promoting inclusive growth in South Asia by alleviating poverty and reducing the income disparities and growing imbalances, both between countries and among regions within individual countries. The regional integration will benefit the landlocked and isolated subregions in South Asia to better integrate them with the leading regions.

309. With respect to other critical infrastructural facilities there is a need to improve the availability of much needed energy by harnessing indigenous regional sources of energy including solar, wind, bio and hydel. There is a mismatch between energy resource distribution and the growth in demand for energy in the region, with relatively smaller economies in the region like Nepal and Bhutan having energy resources well in excess of their energy demand, compared with other economies in the region, India and Pakistan, whose growth in demand for energy is outstripping respective domestic supplies. There are two potential markets for energy trade and investment in South Asia – a western energy market (in which Central Asia and Iran would sell electricity and gas to Afghanistan and Pakistan and possibly to India) and an eastern energy market (in which Nepal, Bhutan and perhaps even Afghanistan) would export hydropower to India, while Myanmar could also export both natural gas and hydropower to India.

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<sup>69</sup> Afghanistan as the upper riparian of the five water basins.

310. Many South Asian countries face the same issues relating to food availability and nutritional security.<sup>70</sup> The most critical factor in ensuring food security in the region is trade and exploiting comparative advantages. The SAARC decision to establish a Food Bank to stabilize prices in the region, with each country contributing a fixed proportion of the agreed reserve stock, is a step in the right direction. It will serve as a buffer/reserve to reduce food security risks and resolve periodic crises during food shortages. For improved food security in the long-term better availability of food is a necessary condition, which could partly be addressed by sharing of information, knowledge on best practices and technologies, joint ventures for food security and research on less input intensive crop varieties and on enhancing yields and disease resisting seeds, adaptation to climate change, remote sensing and GIS, plant protection and creation of regional facilities on SPS.

311. South Asia should jointly address issues like duplication and waste of resources, climate change, environmental degradation, water insecurity, rising sea levels through pooling of resources, databases, forecasting abilities and knowledge to avert the worse effects of natural disasters. Similarly, there is need for cooperation on health hazards through control of communicable and infectious diseases like dengue, SARS and avian influenza. Environmental concerns could be addressed by riparian agreements on information sharing with respect to river flows, conservation of irrigation water, flood control, watershed management and storage and by sharing of information on river flows, by checking deforestation and by controlling and treating industrial effluent waste.

312. The region is water-stressed and the maligning effects of global warming and disruptive weather will adversely impact upon the Himalayas serving as a reservoir of water. Water shortages are affecting water distribution in Pakistan, India and Bangladesh<sup>71</sup>, making it yet another source of tension in the region, and need to be resolved through a regional cooperative approach.

## **F. Conclusions**

313. The nature, level, and range of products and services in which the SAARC countries can trade will depend upon the success achieved in reducing transaction, search, and market information costs: (i) the scale and quality of the economic infrastructure required to handle larger trade volumes); (ii) the pace at which the positive lists are eliminated and the timelines for implementation of SAFTA are shortened; (iii) the manner in which issues related to tariffs on agricultural produce, subsidies, non-tariff barriers and "rules of origin" in respect of items traded and product coverage are resolved; (iv) the inclusion of services and investment within the ambit of SAARC; (v) the availability of information on production facilities and technologies; and (vi) the ease with which people in general, and businessmen in particular, can travel from their home country to other countries.

314. In India and Pakistan businessmen would have to be granted general purpose visas instead of city-specific visas that also require police reporting. In other words, if robust trade between SAARC member countries is to be promoted, their governments will have to play a much more positive role, which in turn would hinge upon the normalization of relations. The viability of the process will depend upon regional governments inspiring confidence in their vision through a continuing political commitment to trade expansion and to the need to manage disputes while keeping other means of engagement intact.

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<sup>70</sup> Reflected also in the declaration on Food Security adopted in the SAARC meeting of Agriculture Ministers in November 2008, where a proposal for a Food Bank with an initial reserve of 240,000 tons of food grains was also mooted as a short-term response.

<sup>71</sup> Where the River Ganges form a delta. Cross border cooperation on water is required between India, Bangladesh and Nepal just for controlling floods.

315. The peace dividend of a more economically integrated and rapidly developing region, as exemplified by the European experience, could be a major additional benefit for the countries in South Asia—extended trade relationships would reduce the potential for conflict by creating strong constituencies for peace. Peace and stability in the region would spur the neighborhood effect in FDI. The perception of South Asia as a stable region for investment would substantially increase FDI, especially with growing acceptance of India as a regional, if not, a global leader. Moreover, as the experience of EU and ASEAN suggest, the true benefits of regional trade are only realized through the investment channel.

316. Finally, to become a strong voice in international economic forums, there is a need to create an enabling environment which requires a re-ordering of priorities and action plans, a build-up of the organization's operational capacity, and ownership of the effort, to bring prosperity to the region.



## IX. Possible Role for ADB

317. ADB can play an important role in achieving the objectives of greater regional integration and physical connectivity. It is widely viewed as an honest and respected broker and can operate as an adviser and partner in forging collaborative commercial agreements and related arrangements. It can also act as a partner in developing financing mechanisms and partnerships and can leverage cofinancing from other bilateral, multilateral organizations, and others. It enhances the visibility and marketability of regional efforts. In addition, it can help disseminate knowledge on such things as best design, instruments, and practices. And it can provide technical assistance in the search for cooperative options for dealing with issues such as global warming and other environmental issues, and food security.

318. By fostering cross-border trading links through construction of road and rail networks and development of trade corridors connecting remote and isolated areas, ADB can reinforce inclusive growth by stimulating private investment from the region and into the region.

319. In the area of communications, it can also help create cross-border connectivity using high quality, affordable, and reliable broadband fiber-optic and data interchange, helping bridge the rural-urban digital divide. E-centers in villages could facilitate greater regional cooperation and poverty reduction by boosting access to e-services in agricultural marketing, education, health care and other public services.

320. To address issues connected with food security ADB may wish to consider (i) investments in irrigation systems aimed at improving their dependability and efficiency, expanding cultivable land, lowering the probability of crop failures owing to drought and climate change, and raising crop yields; (ii) improving farmers' connectivity to markets for inputs and consumers, reducing production costs and marketing and post harvest ,and handling and processing losses; and (iii) support for investment in adaptive research and dissemination of information about technology and knowledge about targeted social protection schemes such as food stamps, cash transfers, successful school feeding programs, and food for work schemes.<sup>72</sup>

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<sup>72</sup> Among ADB's initiatives relevant to South Asia, it is supporting the development of ICT infrastructure and systems under SASEC related programs. Other initiatives include the Bay of Bengal Initiative for Multilateral Technical and Economic Cooperation (BIMSTEC), its Regional Cooperation Strategy and Program for South Asia, the SAARC Development Fund to support poverty alleviation projects, and SAARC Action Plan on Climate Change, the SAARC Food Bank, the establishment of a South Asia University, the Development of a Transport Corridor for Trade Facilitation, the North South Fast Track Road Connectivity Project, the SASEC Tourism Development project, the Hazardous Waste Treatment Facility Project, Sub-regional Energy Trade Project, the ASEC Transport Corridor Improvement Project, and the Regional Cooperation and Integration and the Investment Climate Facilitation Fund to provide financial and knowledge resources for projects enhancing regional cooperation.

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### **Appendix 1: Terms of Reference**

1. Review the key characteristics of South Asia as a region in terms of key macroeconomic and social indicators and overall development trends and provide inter-regional comparisons with other regions in Asia.
2. Review the degree of regional integration across South Asia in terms of key indicators (i.e., trade and investment) at the national level but also across the sub-regions (i.e., the Northeast and Northwest of South Asia), the Himalayan range, the Punjab).
3. Review how regional cooperation activities (including policies, investments in infrastructure, and other activities) can narrow the spatial and economic divides across countries and sub-regions in South Asia, promote the freer flow of goods, services, people and ideas, support inclusive growth and thereby improve livelihoods and opportunities for the people of South Asia.
4. Review the opportunity costs of continued barriers to trade and investment in the region including the trade diversion with a particular focus on India, Bangladesh and Pakistan.
5. Review the key constraints that hold back greater regional integration in South Asia (including policies and institutions) and recommend measures to relax and eventually overcome these constraints over the short, medium and long term.
6. Review the key sectors and areas that provide the greatest potential to deepen regional cooperation in South Asia including road corridors, regional transportation hubs and trade in energy and development of a regional grid.
7. Review how to "re-center" South Asia in the context of an open and modern Pan-Asia regionalism and the crucial role of South Asia as a bridge between Central and West Asia and East Asia and the key stepping stones required going forward.
8. Review the enabling conditions and the major risks in supporting greater advancement and progress of regional cooperation in South Asia with a view to addressing the economic and social disparities across countries in South.
9. Prepare a report that presents a clear vision of an advanced and eclectic regional cooperation framework in South Asia that builds on a clear exposition of medium term strategic considerations addressing critical issues identified under 1-8 above and how ADB as a development partner can strategically support this vision.

**Appendix 2:**  
**South Asia in Perspective – Regional Comparative Analysis of Key Indicators**

**Table 2.1: Demographic Profile**

<u>Country</u>	<u>Mid Year Population (in millions)</u>			<u>Population Growth Rates (%)</u>			<u>Population Aged 15-64 (%)</u>			<u>Age Dependency Ratio</u>		
	<u>1995</u>	<u>2000</u>	<u>2008</u>	<u>1995</u>	<u>2000</u>	<u>2008</u>	<u>1995</u>	<u>2000</u>	<u>2007</u>	<u>1995</u>	<u>2000</u>	<u>2007</u>
<b>South Asia</b>												
Afghanistan	19.4	21.3	25.0	1.9	1.9	2.0	53.0 (1990)	52.0	40.0	88.7 (1990)	92.3	104.1
Bangladesh	108.8	128.1	142.4	1.6	1.4	1.3	57.3	59.5	62.1	74.4	68.1	61.1
Bhutan	0.6	0.6	0.7	1.3	1.3	1.9	52.5	55.4	64.7	90.3	80.4	54.7
India	923.0	1,016.0	1,150.0	2.0	1.8	1.4	59.2	60.4	62.8	69.0	65.5	59.2
Maldives	0.2	0.3	0.3	2.0	1.5	1.5	51.2	56.0	64.2	95.1	78.1	55.8
Nepal	20.1	22.6	27.0	1.0	2.4	2.2	54.8	55.6	58.3	82.6	79.9	71.5
Pakistan	124.5	139.8	162.4	2.5	2.3	1.7	52.2	54.6	60.4	91.5	83.2	65.7
Sri Lanka	17.3	18.5	20.2	1.1	1.4	0.9	62.6	66.7	69.9	55.0	50.0	43.0
<b>East Asia</b>												
China, People's Republic of	1,211.2	1,267.4	1,328.0	1.1	0.8	0.5	67.4	68.2	71.4	48.4	46.6	40.0
Hong Kong, China	6.2	6.7	7.0	2.0	0.9	0.7	71.0	72.2	73.5	40.9	38.6	26.1
Korea, Republic of	45.1	47.0	48.6	1.0	0.8	0.3	69.2	71.8	72.2	41.3	39.3	38.5
Mongolia	2.2	2.4	2.7	1.4	1.7	1.5	57.3	61.6	68.8	74.4	62.2	45.3
Taipei, China	21.3	22.2	23.0	0.9	0.8	0.4	68.6	70.3	72.2	45.8	42.3	38.4
<b>South East Asia</b>												
Brunei	0.3	0.3	0.4	4.0	2.5	2.1	64.4	65.8	68.0	55.4	52.0	47.1
Cambodia	10.5	12.6	14.0	5.2	1.8	1.3	50.9	55.2	60.9	96.4	81.2	64.2
Indonesia	194.8	205.8	228.5	1.7	0.9	1.3	62.7	64.8	66.9	59.5	54.3	50.2
Lao	4.6	5.1	6.0	0.3	2.1	2.2	52.1	53.2	58.4	92.0	87.9	71.2
Malaysia	20.7	23.5	27.7	2.8	2.5	2.1	60.2	62.7	65.0	66.2	59.6	53.9
Myanmar	44.7	50.1	58.8	1.9	2.0	2.3	61.7	64.3	68.1	62.1	55.6	46.8
Philippines	68.4	76.9	90.5	2.3	2.1	2.0	57.3	58.7	60.6	74.5	70.3	65.1
Singapore	3.5	4.0	4.8	3.1	1.7	5.5	71.5	71.1	73.0	39.9	40.8	37.0
Thailand	59.4	62.2	65.5	1.2	0.7	1.1	68.4	69.7	70.7	46.1	43.4	41.5
Vietnam	72.0	77.6	86.2	1.7	1.4	1.2	57.9	61.0	66.3	72.6	63.9	50.9

Source: ADB Key Indicators (2009)

**Table 2.2: Socio Economic Indicators**

<b>Country</b>	<b>HDI</b>			<b>Access to Safe Water</b>			<b>Literacy Rate (male &amp; female, 15 years above, %)</b>		<b>Life Expectancy (male &amp; female, years)</b>			<b>Infant Mortality (per 1,000 live births)</b>		
	1995	2000	2006	1995	2000	2008	1990	2007	1990	1995	2007	1990	2000	2007
<b>South Asia</b>														
Afghanistan	n/a	n/a	n/a				n/a	28.0 (2000)	41.8	41.3 (2000)	42.1 (2006)	168	165	165
Bangladesh	0.414	0.489	0.524				35.3 (1991)	53.5	54.8	58.1	64.1	105	66	47
Bhutan	n/a	n/a	0.613				n/a	55.6	53.1	57.2	65.7	91	68	56
India	0.517	0.561	0.609				48.2 (1991)	66.0	59.7	61.2	64.7	83	67	54
Maldives	0.681	0.719	0.749				96.0	97.0	60.5	62.5	68.5	79	43	26
Nepal	0.436	0.492	0.530				33.0 (1991)	56.5	54.5	57.9	63.7	99	63	43
Pakistan	0.463	n/a	0.562				42.7 (1998)	54.9	59.9	61.5	65.5	102	84	73
Sri Lanka	0.701	0.723	0.742				n/a	91.5	70.1	70.6	72.4	26	18	17
<b>East Asia</b>														
China, People's Republic of	0.655	0.718	0.762				77.8	93.3	68.3	69.8	73.0	36	30	19
Hong Kong, China	n/a	n/a	0.942				n/a	n/a	77.4	78.7	82.3	6	3	2
Korea, Republic of,	n/a	n/a	0.928				n/a	n/a	71.3	73.4	79.0	8	5	4
Mongolia	n/a	0.676	0.720				n/a	97.3	60.8	62.7	66.8	71	49	35
Taipei, China	n/a	n/a	n/a				92.4	n/a	73.8	74.5	77.4	5	6	5
<b>South East Asia</b>														
Brunei	0.889	0.905	0.919				87.8 (1991)	94.9	74.2	75.3	77.3	10	8	8
Cambodia	n/a	0.511	0.575				67.3 (1998)	76.3	54.9	56.1	59.5	87	80	70
Indonesia	0.657	0.671	0.726				81.5	91.4	61.7	64.7	70.6	60	36	25
Lao	0.516	0.563	0.608				60.3	73.4	54.6	58.1	64.4	120	77	56
Malaysia	0.766	0.797	0.823				82.9 (1991)	91.9	70.3	71.5	74.3	16	11	10
Myanmar	0.507	0.551	0.585				n/a	89.9 (2000)	59.0	60.0	62.1	91	78	74
Philippines	0.711	0.725	0.745				93.6	93.4	65.6	67.7	71.7	43	29	23
Singapore	0.883	0.907	0.918				89.1	94.4	74.3	76.4	80.5	6	3	2
Thailand	0.721	0.750	0.786				n/a	94.1	67.0	67.6	70.6	26	11	6
Vietnam	0.645	0.688	0.718				n/a	90.3 (1999)	65.9	69.5	74.2	40	23	13

Source: ADB Key Indicators. (2009)



Table 2.3: Macro Economic Indicators

Country	GDP at PPP (US\$ in millions)			GDP at per Capita (US\$)			Inflation Rates(%)			Unemployment			Fiscal Deficit (as % of GDP)			Current Account Deficit (as % of GDP)			External Debt as a Percentage of GDP		
	2000	2005	2008	2000	2005	2008	1995	2000	2008	1995	2000	2008	1995	2000	2008	1995	2000	2008	1995	2000	2007
South Asia																					
Afghanistan	n/a	22,411	31,842	n/a	950	1,274	n/a	n/a	30.6	n/a	3.4 (2001)	3.4 (2004)	n/a	n/a	n/a	n/a	-3.2 (2002)	-1.5	n/a	n/a	19.7 (2006)
Bangladesh	111,201	163,729		868	1,195	1,501	8.9	2.8	9.9	3.5 (1996)	4.3	4.2 (2006)	-2.2	-4.5	-5.3	-1.8	-0.9	0.8	40.4	32.2	30.0
Bhutan	1,416	2,317		2,379	3,649	5,053 (2007)	9.5	4	8.4	1.2 (1998)	1.9 (2001)	3.7 (2007)	0.1	-3.8	0.6 (2007)	-11.6	5.4	11.7 (2007)	39.2	45.6	68.6
India	1,544,327	2,445,194		1,520	2,221	2,923	10.2	4	10.7	n/a	2.7	3.1 (2005)	-4.2	-5.7	-6.0	-1.6	-0.6	-2.4	26.8	21.8	18.9
Maldives	836	1,180		3,094	4,016	5,198 (2007)	5.5	-1.2	12.3	0.8	2.0	14.4 (2006)	-6.4	-4.4	-13.6	-4.6	-8.2	-51.7	40.9	34.7	56.4
Nepal	21,005	26,022		931	1,029	1,165	7.7	3.4	7.7	4.5 (1996)	8.8 (2001)	n/a	-4.5	-4.3	-2.0	-5.2	-2.3	3.1	54.7	52.0	35.0
Pakistan	235,963	340,258	431,341	1,688	2,210	2,657	13	3.6	12	5.4	7.8	5.2	-5.6	-5.4	-7.6	-3.7	-0.3	-9.4	49.5	44.9	28.0
Sri Lanka	51,994	69,740		2,815	3,546	4,556	7.7	6.2	22.6	12.3	7.6	5.2	-8.8	-9.3	-7.0	-6.1	-6.4	-9.3	65.3	57.2	43.8
East Asia																					
China, People's Republic of	2,976,464	5,314,365	7,912,850	2,348	4,064	5,958	17.1	0.4	5.9	2.9	3.1	4.2	-1.8 (1996)	-2.8	-0.4	0.2	1.7	9.8	16.5	12.3	11.6
Hong Kong, China	175,649	243,081	306,696	26,354	35,678	43,954	9	-3.8	4.3	3.2	4.9	3.6	-0.3	-0.6	-0.3	-4.4 (1997)	4.1	14.2	15.2	24.2	32.0 (2006)
Korea, Republic of,	805,579	1,096,741	1,342,782	17,137	22,783	27,620	4.4	2.3	4.7	2.1	4.1	3.2	0.3	1.1	1.2	-1.7	2.3	-0.7	16.7	27.9	36.4
Mongolia	3,741	6,662	9,401	1,552	2,602	3,508	56.8	11.6	28	5.5	4.6	2.8	-1.5	-7.7	-5.0	3.2	-7.4	-12.9	43.3	81.7	41.5
Taipei, China	447,377	592,261	711,584	20,166	26,057	30,942	3.7	1.3	3.6	1.8	3.0	4.1	-1.1	-4.6	-0.2 (2007)	2.0	2.8	6.4	9.9	10.8	24.6
South East Asia																					
Brunei	14,028	17,567	20,076	43,190	47,465	50,442	6	1.2	2.7	4.9	4.7	3.7	15.1	10.9	28.7	51.3	31.7 (2001)	52.6	n/a	n/a	n/a
Cambodia	11,410	20,143	28,421	907	1,497	2,030	7.8	-0.8	19.7	2.5	2.5	0.0 (2004)	-7.2	-2.1	0.7	-3.1	-2.7	-7.3	71.8	72.5	47.1
Indonesia	495,271	705,159	908,368	2,406	3,207	3,975	9.5	9.3	9.8	7.2	6.1	8.4	2.2	-1.1	-0.1	-3.2	4.8	0.1	63.4	93.6	33.9
Lao	6,342	9,687	14,324	1,252	1,723	2,387	19.6	23.1	7.5	3.6	5.0 (2001)	1.4 (2005)	-12.9	-4.6	-2.2	-7.5	-0.3	2.7	123.2	150.7	84.4
Malaysia	211,503	301,308	383,116	9,004	11,531	13,816	4	1.5	5.4	3.1	3.0	3.3	0.8	-5.5	-4.8	-9.8	9.0	17.6	40.6	48.6	29.4

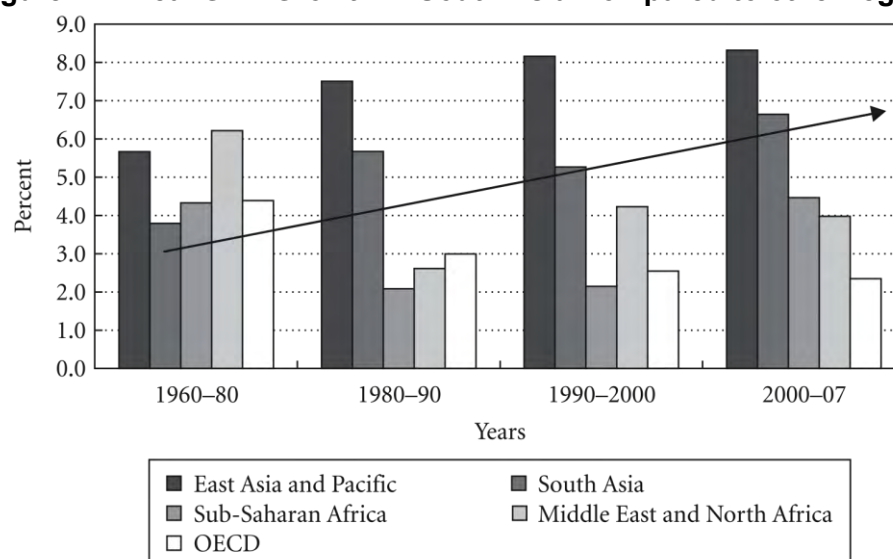
Myanmar	23,626	49,207	4,9207 (2005)	471	888	n/a	25.3 (1998)	-0.2	26.8	4.2	4.0 (2001)	4.0 (2007)	-3.3	0.7	n/a	-0.2	-0.1	0.0 (2006)			
Philippines	177,830	250,244	317,258	2,311	2,935	3,507	6.7	4	9.3	9.5	11.2	6.8	0.6	-4.0	-0.9	-4.4	-2.9	2.5	n/a 51.7	n/a 72.3	n/a 41.9
Singapore	131,351	186,650	244,177	32,610	43,755	50,456	1.8	1.3	6.5	2.7	4.4	2.8	14.5	10.0	12.0 (2007)	17.1	11.6	14.8	9.8	16.0	23.0 (2002)
Thailand	307,515	445,195	546,420	4,941	6,874	8,216	5.7	1.7	5.4	1.7	3.6	1.4	2.6	-2.8	-0.4	-7.9	7.6	-0.1	33.3	66.0	26.5
Vietnam	109,711	178,075	240,390	1,413	2,143	2,788	5.7 (1996)	-1.6	25.6	n/a	2.3	2.4	-1.3	-3.5	-2.0	-9.0	3.6	-11.8	384.0	41.7	36.3

Source: ADB Key Indicators. (2009)

**Table 2.4: Poverty and Inequality**

Country	Proportion of Population below \$2 a Day (%)		Income Ratio of Highest 20% to Lowest 20%		Gini Coefficient	
	1995	Latest Year	1995	Latest Year	1995	Latest Year
<b>South Asia</b>						
Afghanistan	n/a	n/a	n/a	n/a	n/a	n/a
Bangladesh	79.5	80.3 (2005)	4.8	4.3 (2005)	0.33	0.3324 (2005)
Bhutan	n/a	49.5 (2003)	n/a	9.9 (2003)	-	0.468 (2003)
India	81.7 (1993)	75.6 (2005)	4.9 (1993)	5.6 (2005)	0.329 (1993)	0.368 (2005)
Maldives	n/a	n/a	n/a	n/a	n/a	n/a
Nepal	88.1	77.6 (2003)	6.2	8.9 (2003)	0.377	0.473 (2003)
Pakistan	83.3 (1996)	60.3 (2004)	3.9 (1996)	4.5 (2004)	0.287 (1996)	0.312 (2004)
Sri Lanka	46.7	39.7 (2002)	5.3	7.1 (2002)	0.344	0.411 (2002)
<b>East Asia</b>						
China, People's Republic of,	78.6 (1993)	36.3 (2005)	7.6 (1993)	8.3 (2005)	0.407 (1993)	0.415 (2005)
Hong Kong, China	n/a	n/a	9.6 (1996)	n/a	0.434 (1996)	n/a
Korea, Republic Of,	n/a	n/a	4.7 (1998)	n/a	0.316 (1998)	n/a
Mongolia	43.5	49.1 (2005)	5.5	5.6 (2005)	0.332	0.330 (2005)
Taipei, China	n/a	n/a	5.4 (1993)	6.1 (2003)	0.313 (1993)	0.339 (2003)
<b>South East Asia</b>						
Brunei	n/a	n/a	n/a	n/a	n/a	n/a
Cambodia	77.9 (1994)	68.2 (2004)	5.8 (1994)	6.9 (2007)	0.318 (1994)	0.407 (2007)
Indonesia	84.6 (1993)	53.8 (2005)	5.2 (1993)	6.7 (2005)	0.344 (1993)	0.39 (2005)
Lao	84.8 (1992)	76.9 (2002)	4.3 (1992)	4.9 (2002)	0.304 (1992)	0.326 (2002)
Malaysia	11	7.8 (2004)	7.7 (1993)	6.9 (2004)	0.48 (1993)	0.37 (2004)
Myanmar	n/a	n/a	n/a	n/a	n/a	n/a
Philippines	52.6 (1994)	45.0 (2006)	8.3 (1994)	9.0 (2006)	0.429 (1994)	0.440 (2006)
Singapore	n/a	n/a	9.8 (1998)	n/a	0.425 (1998)	n/a
Thailand	25.6 (1992)	11.5 (2004)	9.4 (1992)	8.0 (2004)	0.462 (1992)	0.425 (2004)
Vietnam	85.7 (1993)	48.4 (2006)	5.4 (1993)	6.4 (2006)	0.357 (1993)	0.378 (2006)

Source: ADB Key Indicators. (2009).

**Figure 2.1: Real GDP Growth in South Asia Compared to other regions**

### **Appendix 3: Barriers to Trade**

#### **A. Particulars of the SAFTA Tariff Liberalization Program:**

The SAFTA agreement aims to reduce tariff barriers in essentially two phases, i.e.:

Phase I (to come in to effect by 2008-2009):

- The reduction of Tariffs by developing countries to 20% by January 2008.
  - The reduction of tariffs by LDCs to 30% by January 2008.
- (These two concessions as part of the SAFTA have not yet been implemented by the South Asian economies as is evidenced by the discussion above)
- Reduction of tariffs of developing countries viz-a-viz imports from SAARC member countries.
  - Reduction of tariffs imposed on LDCs imports reduced to 0-5% by the year 2009.
  - Reductions in the first three categories of tariff barriers are, of course, subject to sensitive lists.

Phase II (to come in to effect fully by the year 2016):

- All SAFTA duties are reduced to zero.
- A complete elimination of the sensitive lists by member countries.

#### **B. Country Specific and Comparative Analysis of Tariff Barriers in South Asia**

*India:*

India remains one of the largest economies in the South Asian region, and is slated to be one of the fastest growing economies in the region with a GDP growth rate of 9.4% in 2006-2007. (ADB. 2008).

Up until the 1980s, India maintained an extremely rigid and 'inward looking' strategy for industrialization, with one of the most restrictive trade regimes of the time. (ADB. 2008). The country used a combination of very high tariff structures as well as high NTBs, in the form of licensing and quotas, to maintain a closed economy. (ADB. 2008).

However, with slowing industrial growth rates and concerns within the country regarding the restrictive trade regime, India began to slowly liberalize its economy in the 1980s, with trade liberalization proceeding at a much faster pace in the 1990s, with un-weighted average tariff rates coming down from 128 percent to 34 percent, between 1991 and 1998. (SBP. n.d.) and the general maximum customs duty being reduced further to 20 percent (30 percent for agricultural products) in January 2004. (SBP. n.d.).

In the case of tariff barriers, India is ranked at 104 out of 133 countries, with a trade weighted average tariff rate of 10.9%, by the Global Competitiveness Report 2009-2010 of the World Economic Forum.

## India's Current Tariff Structures:

**Table 3.1. Current Tariff Structures (percentage of imports for each Tariff Range)**

Customs duties (%)		Duty Free	0<=5	5<=10	10<=15	15<=25	25<=50	50<=100	>=100
Agricultural Products									
-Final Bound		0	0	1.3	0.1	2.7	6.7	52.9	36.2
-MFN Applied	2008	5.4	3.9	3.6	5.9	4.6	66.9	7.5	2.3
-Imports	2006	6.8	4.0	2.4	3.1	1.0	56.6	25.3	0.7
Non Agricultural Products									
-Final Bound		3.2	0.5	0.0	0	14.8	50.2	0.7	0.2
-MFN Applied	2008	3.4	14.4	74.0	0.5	1.7	5.0	0.8	0.1
-Imports	2006	9.0	43.4	8.3	38.9	0.2	0.1	0.1	0.0

Source: WTO website

Table 3.1 provides an overview of final bound as well as MFN applied tariff rates for both agricultural and non-agricultural products. As can be seen from the table, in the case of agricultural products, the Final Bound tariff rates being applied are 50% and above for 89.1% of the imports. In the case of imports from most favored nations, tariff rates tend to remain below 50% for 90% of the imports in the year 2008. The majority of the agricultural imports, i.e. 66.9%, fall within 25%-50% tariff rates in the same year. In the case of total imports for agricultural products, the tariff rates being applied are within the range of 25% to 100%, with 25.3% of the imports being charged tariffs within the range of 50% to 100%.

In the case of non-agricultural products, tariff rates tend to be lower, with final bound tariffs rates being within the ranges of 15% to 50% for approximately 65% of imports. Final bound tariffs in the ranges of 50% and above are applied to only 0.9% of the imports. In the case of most favored nations, tariff rates applied to non-agricultural imports are below 10% for 91.8% of imports for the year 2008. Tariffs rates applied on all non-agricultural imports in the year 2006, were under 15% for approximately, 82% of the imports, with 38.9% of the imports falling within the 10%-15% tariff ranges.

*Pakistan:*

Pakistan's trade policy after its independence focused on import substitution as way of protecting and developing the industrial base of the country. The policy then evolved to focus on export expansion while restricting imports through the use of foreign exchange policies, bilateral agreements and import licensing agreements (ADB. 2008). By 2002, mainly under an IMF programme Pakistan's trade policy began to focus on opening up the domestic market to imports and a general liberalization of trade through measures such as the standardization of tariff rates, excise and sales tax rebates, duty-free imports of machinery, among other measures. (SBP. n.d.)

However, the most relevant measure for the purposes of this chapter is the rationalization of tariff rates with the lowering of tariff slabs to four, with the maximum rate of 25%.<sup>73</sup>

The Global Competitiveness index ranks Pakistan as 105 out of a total of 133 rankings, with a trade weighted average tariff rate of 11.3%.

<sup>73</sup> Pakistan Agriculture Economy and Policy, February 2009

<http://www.fas.usda.gov/country/Pakistan/Pakistan%20Agriculture%20and%20Policy%20Report.pdf>

### Pakistan's Current Tariff Structures:

The current tariff status of the country is set out in the table below:

**Table 3.2: Current Tariff Structures (percentage of imports for each Tariff Range)**

		Duty Free	0<=5	5<=10	10<=15	15<=25	25<=50	50<=100	>=100
Agricultural Products									
Final Bound		0	3.3	0	0.3	0.1	0.5	90.4	1.8
MFN Applied	2008	13.7	19.0	14.8	13.1	35.8	1.2	2.4	0
Imports	2007	44.0	3.6	12.5	2.0	8.8	28.8	0.3	0
Non Agricultural Products									
Final Bound	0	1.9	0.0	1.8	14.8	18.3	62.3	0	0
MFN Applied	2008	4.9	38.6	13.0	7.0	33.8	2.4	0.4	0
Imports	2007	33.9	28.0	17.5	3.6	11.8	2.5	2.7	0

Source: WTO website

As illustrated in Table III.2 above, the final bound tariff rate for 90.4% of the agricultural imports is between 50% to 100%. The tariff rates applied to most favored nation imports, of agricultural products is below 25% for 96.4% of imports in the year 2008. The tariff rates applied to all agricultural imports for the year 2007 is under 25% for 69% of agricultural imports. 28.8% of agricultural imports were charged tariffs between the ranges of 25%-50%. Interestingly, 44% of agricultural imports were imported on 0% duty in the year 2007.

In the case of non-agricultural products, the final bound tariff rate lies below 50%, with 68% of these products eligible for a maximum tariff range of between 25% to 50%. In the year 2008, in the case of most favored nations, only 3% of non agricultural imports were charged a tariff above the 25% and only 33.8% of the imports were dealt with in the tariff range of 15% to 25%. In the case of all non-agricultural imports, approximately 17% of the imports were charged tariffs over and above the 25% range. 33.9% of non-agricultural products were imported on at 0% duty.

### *Bangladesh:*

Prior to 1987, the country adopted a highly restrictive trade regime through the use of, both, tariff and non-tariff barriers, an overvalued exchange rate and import policy order, (IPOs). (Moazzam, Rehman. 2009).

As part of the Structural Adjustment Program of 1987, trade liberalization has been the corner stone of the country's economic policy, with a focus on liberalizing para-tariffs, which have a protective impact over and above custom duties. (ADB. 2008).

In the Global Competitiveness report, the country ranks at 113 for tariff barriers, out of a total of 133 countries, with the weighted average tariff rate at 13%.

The current tariff rates for the country are provided in the table below:

**Table 3.3: Current Tariff Structures (percentage of imports for each Tariff Range)**

		Duty Free	0<=5	5<=10	10<=15	15<=25	25<=50	50<=100	>=100
Agricultural Products									
Final Bound		0	0	0	0.7	0.2	3.9	0	95.1
MFN Applied	2008	9.3	0	13.8	19.9	57.0	0	0	0
Imports	2006	75.1	0	6.8	2.9	15.3	0	0	0
Non Agricultural Products									
Final Bound		0.0	0.2	0.0	0.1	0.8	1.4	0	0.0
MFN Applied	2008	2.8	14.8	17.2	27.8	37.3	0	0	0
Imports	2006	4.7	23.0	20.1	24.9	27.3	0	0	0

Source: WTO website.

The final bound tariff rates for agricultural products, as given in the table, are above a 100% for 95.1% of the imports. In the case of most favored nations, the tariff rates for agricultural imports in the year 2008, were below 25% for all imports, with 57% of the imports falling between the tariff ranges of 15% to 25%. In the case of total agricultural imports, 75.1% of the imports were charged 0% duty and all imports were charged tariff rates below 25%.

In the case of non-agricultural imports, the tariff rates charged were below 25% for all imports, including imports from most favored nations.

#### *Sri Lanka:*

Sri Lanka began its trade liberalization process in the late 1970s, after a period of import substitution policies. The quantitative restrictions on imports were lifted by the late 1990s on all imports with the exception of some agricultural and industrial commodities, which were removed by 1998. (De, et al. 2008). The tariff rates for Sri Lanka have traditionally remained low, indicating an open economy. (ADB. 2008).

The Global Competitiveness report ranks the country at 88 out of a total of 133 countries, with a trade weighted average tariff rate of 8.2%.

#### *The ABMN economies (i.e. Afghanistan, Bhutan, Maldives and Nepal):*

##### *Afghanistan:*

Due to the political instability and the fact that the country is not a member of SAARC, there is limited information available on the tariff rates in the country. According to the Trade Profiles Report 2009 of the WTO, the simple average of import duties for most favored nations, in the year 2007, was 21.9%. (Global Competitiveness Report. 2010).

##### *Bhutan:*

Bhutan is one of the smallest economies in the South Asian Region and its current efforts for trade liberalization primarily consist of bilateral agreements with India, which is its major trading partner owing for 95% of its exports and 80% of its imports. (ADB. 2008). Though having followed an extremely restrictive trading regime in the past, Bhutan has made significant progress and its trade policy can be regarded as one of a small open economy. The tariff barriers employed by Bhutan consist of the Bhutan Sales Tax, which is levied on all commodities and is hence non-distortionary, as well as customs duties, which are exempt for India. (ADB. 2008).



#### Maldives:

Maldives is a small economy that has a liberal trade policy due to its high dependence on imports. The country levies relatively high tariffs, which are a major source of government revenue, accounting for over two thirds of all tax receipts. The tariff rates for the most favored nations in the year 2008, were 20.4%. (WTO. 2008).

#### Nepal:

Nepal is a liberal trade economy that has significantly reduced tariff rates over the past few decades. Currently, Nepal is ranked as 116 in the Global Competitiveness Index, with trade weighted average tariff rates at 12.8%. (World Bank. 2010).

#### Comparison of Tariff Structures of the three large economies of South Asia, i.e. India, Pakistan and Bangladesh:

As discussed above, of the three large South-Asian economies, India has the lowest trade weighted average tariff rates at 10.9%, followed by Pakistan at 11.3% and Bangladesh at 13%. Their respective rankings in the Global Competitiveness Report are 104, 105 and 116, out of the 133 countries considered<sup>74</sup>.

However, a deeper analysis of tariff structures indicates that there are variations in tariffs that are not reflected by the trade-weighted average provided by the Global Competitiveness Report. For instance, in the case of India, the high tariffs levied in the agricultural sector are offset by the low tariffs in the non-agricultural sector, which leads to a trade weighted average tariff rate lower than Pakistan and Bangladesh, when the latter two countries actually charge lower tariffs for agricultural imports.

- Tariffs in the case of Agricultural Products:

In the case of India, tariff rates tend to remain high, with the majority of the agricultural imports from MFNs, i.e. 66.9%, falling within 25%-50% tariff ranges in 2008. (WTO. 2010).

The tariff rates, levied by Bangladesh, were lower compared to India, for agricultural imports from Most Favored Nations, in the year 2008, i.e. below 25% for all imports, with 57% of the imports falling between the tariff ranges of 15% to 25%. (WTO. 2010).

In comparison, the tariff rates applied to most favored nation imports, of agricultural products in Pakistan were the lowest of the three economies, at below 25% for 96.4% of imports, and below 15% for 61% of these imports, in the year 2008. (WTO. 2010).

In the case of total imports, the tariff rates being applied by India are the highest, i.e. within the range of 25% to 100%, with 25.3% of the imports being charged tariffs within the range of 50% to 100%. (WTO. 2010).

The tariff rates applied to all agricultural imports for the year 2007, by Pakistan, were under 25% for 69% of agricultural imports. 28.8% of agricultural imports were charged tariffs between the ranges of 25%-50%. Interestingly, 44% of agricultural imports were imported on 0% duty in the year 2007, compared to only 4% in the case of India. (WTO. 2010).

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<sup>74</sup> Global Competitiveness Report, 2009-2010, page, 413.

In the case of total agricultural imports, Bangladesh is probably the least restrictive of the three tariff regimes being discussed, with 75.1% of the imports were charged 0% duty and all imports being charged tariff rates below 25%. (WTO. 2010).

- Tariffs in the case of Non-Agricultural Products:

In the case of imports from most favored nations, Indian tariff rates applied to non-agricultural imports are below 10% for 91.8% of imports for the year 2008, i.e. the lowest from amongst the three economies. (WTO. 2010).

For the same year, in the case of most favored nations imports to Pakistan, only 3% of non agricultural imports were charged a tariff above the 25% and only 33.8% of the imports were dealt with in the tariff range of 15% to 25%. (WTO. 2010).

Tariffs rates applied on all non-agricultural imports in the year 2006 in India, were under 15% for approximately 82% of the imports, with 38.9% of the imports falling within the 10%-15% tariff ranges. These tariff rates for all non-agricultural imports were the lowest among the three economies discussed. (WTO. 2010).

Pakistan, in the case of all non-agricultural imports, charged approximately 17% of the imports, tariffs over and above the 25% range. (WTO. 2010).

In the case of all non-agricultural imports to Bangladesh, the tariff rates charged were below 25% but were nevertheless higher than the tariffs being levied by the Indian and Pakistani economies. (WTO. 2010).

As the discussion above indicates, a simple comparison of trade weighted average tariff rates, is insufficient to indicate the full extent of tariff barriers being imposed by the three largest South Asian economies. The basic conclusion to emerge from the above analysis is that despite having the lowest trade weighted average tariff rates of the three countries, India nevertheless imposes the most restrictive tariffs in its agriculture sector, while its tariff rates on non-agricultural sectors are the lowest of the three countries. In terms of tariffs levied on agricultural products, Bangladesh has the least restrictive regime, and the most restrictive in case of non-agricultural products.

### C. Bilateral and Regional Trade Agreements in South Asia:

Table 3.4 provides an overview of the current bilateral and regional trade agreements in South Asia:

**Table 3.4 Bilateral and Regional Trade Agreements in South Asia (excluding SAFTA)**

Country	Bilateral TradeAgreements	Regional Trade Agreements
Afghanistan	Preferential Trade Agreement (2003) with India	
Bhutan	Free Trade Agreement with India (1995)	BIMSTEC
Bangladesh	Trade Agreement (1981)	BIMSTEC, APTA
Maldives	Trade Agreement with India (1991)	
Nepal	Free Trade Agreement (1991)	BIMSTEC
Pakistan	Free Trade Agreement with Sri Lanka.	
Sri Lanka	FTAs with Pakistan and India	APTA, BIMSTEC

Source: (Wakeroon, 2010).

*Bilateral Free Trade Agreements (India-Sri Lanka Free Trade Agreement and Pakistan-Sri Lanka Free Trade Agreement):*

The two bilateral agreements analyzed in the context of tariff reduction include the ISFTA and the PSFTA.

**India-Sri Lanka Free Trade Agreement:**

Under the ISFTA, imports of all products are to be liberalized, with the exception of those on the negative list of each country. The different development stages of the two countries have also been taken in to account in the agreements, which does not require complete reciprocity on part of Sri Lanka to concessions offered by India.

As can be seen from Table 3.5, India maintains a sensitive list of 429 tariff lines, whereas Sri Lanka maintains a sensitive list of 1220 items, protecting mainly its agricultural sectors and its small and medium enterprises. (Weerakoon. 2010).

The details of the tariff liberalization program under ISFTA are provided in the table below:

**Table 3.5: Tariff Reduction under ISFTA:**

<b>Tariff Reduction</b>	<b>India</b>	<b>Sri Lanka</b>
Negative List	1220	429
Immediate Zero Duty March (2000)	1,351	319
Zero Duty within 3 years (cuts of 50%, 75% and 100% by March 2003)	2,870	889
Zero Duty within 8 years (cuts of 50%, 75% and 100% by March 2008)	--	2,802

Source: (Weerakoon. 2010)

**Pakistan-Sri Lanka Free Trade Agreement (PSFTA):**

Under the PSFTA, Sri Lanka is allowed a larger sensitive list and a longer trade liberalization period. Table 3.6 below provides details of the trade liberalization program under the PSFTA:

**Table 3.6: Tariff Liberalization Program of the PSFTA:**

	<b>Pakistan's Commitments</b>	<b>Sri Lanka's Commitments</b>
Negative List	540	697
Immediate zero duty concessions	206	102
Tariff Liberalization Program	34%, 67%, 100% tariff reductions over a period of 3 years.	20%, 30%, 40%, 60%, 80%, 100% tariff reductions over a three year period.

Source: (Weerakoon. 2010).

As can be seen above, the negative lists agreed upon, by the countries (through bilateral agreements) are smaller than their sensitive lists under SAFTA.

## D. Note on Non Tariff Barriers between Pakistan and India

Source: Taneja. (2007).

### Barriers to Trade between India and Pakistan

Identified non tariff barriers that restrict trade between Pakistan and India include the positive list, barriers to trade facilitation, inefficient and uncoordinated customs procedures, technical barriers to trade and sanitary and phyto sanitary (SPS) barriers, financial barriers, para tariff barriers and visa restrictions.

#### *1. Positive List:*

The positive list maintained by Pakistan for Indian exports limits the potential trade between the two countries, as can be seen from the levels of informal trade, at 87% of formal trade. (refer to Chapter on Informal Trade).

Though Pakistan has expanded the positive list in 2006, in lieu of granting India MFN status, of the 302 items added to the list, only two are items of potential export from India. Up to 57% of the items added to the potential list focus on textile machinery exports, which do not figure on the potential list of exports from India. Table 3.7 gives an overview of the evolution of the Positive List over the years.

**Table 3.7. Evolution of the Positive List**

Year	1986	2003	2004	2006	Current
No of Items Added to Positive List	Pakistan issues a list of 42 item positive list	Positive List extended to 687 items	Positive List extended to 768 items	Positive List Extended to 773 items	Positive list Extended to include 1075 items

Source: SBP. (n.d.) and Kumar. (2007).

In addition, the positive list is also a violation of SAFTA, which requires that all country members of SAFTA be granted MFN status. In addition, due to the positive list limiting the items of export from India, the latter only enjoys limited tariff concessions from Pakistan as part of the SAFTA agreement.

The majority of the items on the positive list are eight digit code items and this creates confusion for traders since eight digit codes between the two countries have not been harmonized. Due to this mismatch of codes, it is often up to the discretion of customs officials as to which traded commodity is to be regarded as part of the positive list. Item codes on the positive list often do not have a corresponding description.

Finally, the positive list is not a constant, that is, there are items temporarily added to the list for limited periods of time, adding to the confusion of the items allowed for export from India.

Therefore, the positive list approach lacks transparency and adds to the uncertainty faced by traders in both countries, raising the transaction costs of trade.

#### *2. Constraints to trade facilitation and inefficient custom procedures:*

Trade between India and Pakistan takes place through three routes, i.e. sea, rail and road.

Though land routes would be the most efficient for trading purposes, overland infrastructure between the two countries is severely limited. For instance, the only rail link between the two countries is via Wagah, where trade frequency and volume is limited. Though India allows trade to Pakistan through a number of railway stations and road links, including Amritsar

railway station, Attari railway station, Attari road, Khalra, Assara Naka, Khavda Naka, Lakhpat, santalpur Naka, Suigam Naka, Dekhi Rail Station, Hussain Wala, Bamar Rail station, and Munabao Rail Station, Pakistan only allows trade from India through Attari by rail and Wagah by road.

Additionally, Pakistan allows for the import of only a limited number of items by road, i.e. garlic, tomato, potato, onion and livestock. Pakistan allows only the export of one item, i.e. cement by the road route.

- Restriction on rail imports and exports:

Pakistan does not allow the import of cotton through the rail route, cotton imports are allowed through the Karachi port only, which raises transport costs since the majority of textile mills are located in proximity to Lahore. As a result, the current route for cotton products is through Mumbai to Karachi and then to Lahore. Reciprocally, India also does not allow the trade of cotton via the rail route.

Both countries do not allow transit facilities to each other. India needs transit for its imports to Afghanistan and Pakistan requires transit facilities to Bangladesh and Nepal. In the absence of these overland transit facilities, the cost of trade with the above-mentioned third countries has to factor in the higher costs of transportation.

- Weaknesses in the Overland Rail Infrastructure:

Currently wagons are allowed only on a bi-weekly basis and are not allowed movement after 5:00 p.m.

The reciprocal trade agreement between the two countries requires that the wagons balance be cleared over ten days. Wagon balancing takes place thrice a month and there is a scarcity of wagons until there is a zero balance between the two countries.

Additionally, within borders only the wagons of the country in question, are allowed to transport goods.

There is also a scarcity of wagons available, increasing transport costs as bribery needs to be factored. Bribery costs in India are \$2.5 per tonne and \$ 1.5 per tonne in Pakistan. Between December 2006 to March 2007, only twenty rakes were allowed, whereas the demand was estimated to be for a thousand rakes. As a result, goods are stranded for an average of twenty days, with wagons taking as long as two months to arrange. Due to the unavailability of wagons, Kolkatta steel importers have to transport via Singapore to Karachi, and then transport the imports to Lahore, increasing the transport costs of the trade significantly.

The Lahore Railway Station also has the added constraint of limited capacity and is unable to deal with more than twenty rakes and any increase in wagon/rake allowance on the part of India will require a reciprocal improvement in the capacity on part of Pakistan.

There is no provision for containerized cargo by rail and as a result all containerized cargo has to be routed by sea to the Karachi port.

There is a lack of space for customs agents and the accompanying infrastructure for customs facilitation at the Lahore Railway Station. There are also communication barriers between customs agents and railway officials.

- Road Route Infrastructure Constraints:

There is currently only one overland road route open for trade between India and Pakistan, i.e. the Wagah border, which closes at 4:00 p.m. in a recent amendment to road protocol, Indian and Pakistani trucks are allowed to cross each other's borders and unload, an arrangement similar to the one instituted between Bangladesh and India.

Additionally, there is an absence of warehousing facilities on both sides of the border. There is no cold storage facility available at the border, though only perishable items are slowed for export from India through the road route.

- Customs Procedural Constraints:

Custom reform in India was initiated as far back as 1995, whereas custom reform in Pakistan were initiated in 2002. The main features of the customs reform was the adoption of risk assessment procedures as well as automation of processes. Though EDI has been introduced in both Pakistan and India, the facility is not available at overland cross border trading points in both countries.

Rules of Origin certificates have to be collected at the Chambers of Commerce, in both countries and provided to custom officials at borders to avail SAFTA concessions on non-sensitive list products. There is no electronic system linking Rules of Origin certificates to the customs process.

The Indian authorities create difficulties in the valuation of imports of new items from Pakistan, this is not cited as a problem by importers using the sea route.

Goods imported from Pakistan are said to be held at check points for significant periods of time, awaiting security clearances.

### *3. Regimes for implementation of Sanitary and Phytosanitary standards and technical barriers:*

In the case of India, the Bureau of Indian Standards is the main standard setting body for SPS and TBTs being levied by the country. Due to the existence of consumer courts, the implementation of SPS and TBTs has, by necessity become more rigorous in India. As a result, India imposes mandatory standards for 68 items, however, India has a total of 24 standard setting bodies which creates confusion regarding the actual national standards in place.

Pakistani exporters particularly cite stringent SPS barriers to trade in textile and agricultural products, which they perceive to be the main exports of interest to Pakistan.

Particular complaints regarding compliance with SPS standards include the distance of testing facilities from the port of entry, the requirement of accreditation from a testing facility affiliated with the National Agency of the country of origin (in the case of textile products) and the delays related to the registration of pharmaceutical products with the Central Drugs Standard Control Organization in India. In the case of agricultural imports from Pakistan, Indian traders are required to get phytosanitary certificates and testing, which adds to the time delay in imports. India also does not offer plant quarantine facilities at either the Wagah border or the Attari Raliway Station.

The details required on pre packaged products include information on all taxes and commissions paid, the maximum sale price to be charged, the transport costs incurred, and these requirements increase the transaction costs of trading in pre-packaged goods.

India has a large proportion of items under the sensitive list, in key export items of interest to Pakistan. In the case of textile items, 20% are on the sensitive list, whereas in the case of agricultural products, 34% of the key Pakistani export items are placed on the sensitive list. Therefore, the granting of the MFN status to Pakistan, does not materialize in the form of significant tariff concessions for the country in areas of export interests.

Correspondingly, Pakistan's sensitive list includes 4% of agricultural products and 24% of textile products of export interest to India.

In Pakistan, however, there is only one standard setting body, i.e. the Pakistan Standards in Quality Control Authority. Pakistan imposes mandatory standards for 46 products. Implementation of standards in Pakistan is weak, and there are rarely delays or excessive requirements to be met on part of the importers, in the case of these standards. Additionally, Pakistan has undertaken some constructive efforts to reduce the costs related to the imposition of these standards, e.g. the reduction of quarantine requirements from 21 to 5 days, waiver of quarantine fees and the provision of additional quarantine stations at the border.

#### *4. Financial Barriers to Payment:*

In cases of trade being conducted through overland routes, there have been complaints regarding problems faced due to Indian banks not recognizing Pakistani L/Cs. The confirmation of L/Cs can take up to a month. On the other hand, this is not a problem faced on the sea route, where trade is conducted via confirmed L/Cs.

All payments between traders in India and Pakistan are required to be settled by the Asian Clearance Union, and this creates additional delays in the settlement of transactions.

A major financial barrier is that Indian and Pakistani banks are not allowed to operate in each other's countries, which creates additional costs for traders.

#### *5. Para Tariff Measures:*

India imposes a countervailing duty of 16.3% on most items, a special countervailing duty of 4% and an education cess of 2%. Pakistan imposes a sales tax of up to 15% and a withholding tax of up to 6%. These taxes in both countries are levied in a discretionary manner and create confusion for traders in cases where details of taxes levied are required for the labeling of pre-packaged products.

#### *6. Restrictions relating to visas:*

Both countries do not allow for multiple entry visas, restrict visas to certain cities, require letters of introduction from the host country and require that the port of entry and exit be the same. This not only increases the transaction costs of trade between the two countries, but also limits the potential trade linkages that can be created, through a more open access.

### **E. Country Specific Analysis of non-tariff barriers to trade in goods**

This section provides an overview of country specific non-tariff barriers for the following South Asian Economies: India, Pakistan, Bangladesh, Sri Lanka and Nepal. Table 3.8 provides an overview of the non tariff barriers levied by South Asian Countries.

**Table 3.8. Non Tariff Barriers levied by South Asian Countries:**

Country	Types of Non Tariff Barrier
India	65% in the case of consumer goods, 43% for intermediate goods and 34% for capital goods. (SBP. n.d.). India uses anti dumping duties and anti dumping investigations as the primary non-tariff barriers to trade. Data from 2006 indicates that anti dumping duties are imposed across 47 tariff lines and anti dumping investigations are required across 12 tariff lines. (Das. 2009). India also imposes a countervailing duty of 16.3% on most items, a special countervailing duty of 4% and an education cess of 2%. <sup>75</sup> (Taneja. 2007).
Pakistan	Packaging and labeling requirements are the most extensively imposed barriers to trade, across 62 tariff lines. (Das. 2009). Pakistan also imposes a sales tax of up to 15% and a withholding tax of up to 6%. <sup>76</sup> (Taneja. 2007).
Bangladesh	Non tariff barriers imposed by Bangladesh consist of mainly non automatic licenses and prohibitions, which were levied across over 1000 tariff lines in the year 2000, (Das. 2009), 8% mandatory SPS as well as labeling requirements. (Moazzem, Rehman. 2010).
Nepal	Nepal does not impose extensive nontariff barriers, barriers imposed mainly consist of prohibition to protect human health, imposed across two tariff lines in 1998. (Das. 2009).
Sri Lanka	Sri Lanka imposes extensive non-tariff barriers, the majority of which consist of licensing requirements, inspections, prohibitions and authorizations across more than 400 tariff lines. (Das. 2009).

*India:*

- Non Tariff Barriers to trade:

The coverage ratio, referring to percentage of imports subject to non tariff barriers, is 47% for the entire economy and 55% for the manufacturing industry. Non Tariff Barriers, are 65% in the case of consumer goods, 43% for intermediate goods and 34% for capital goods. India uses anti dumping duties and anti dumping investigations as the primary non-tariff barriers to trade. Data from 2006 indicates that anti dumping duties are imposed across 47 tariff lines and anti dumping investigations are required across 12 tariff lines. India also imposes a countervailing duty of 16.3% on most items, a special countervailing duty of 4% and an education cess of 2%. (These duties are imposed in a discretionary manner, creating difficulties for importers where there are requirements to report the taxes levied on pre-packaged items).

However, a more in depth analysis of non tariff barriers in India, indicates that requirements for security and political clearances, sampling or customs inspections, requirement of technical and standard specifications, (India imposes mandatory standards for 68 items, however, India has a total of 24 standard setting bodies which creates confusion regarding the actual national standards in place) labeling and marketing rules, etc are considered some of the more significant barriers to trade. Government mandated important monopolies in agriculture and petroleum production, in India, can also be interpreted as non-tariff barriers. Additionally, India imposes tariff rate quotas in agriculture sector, permitting import of small quotas at moderate tariffs, and levying higher tariffs for larger quantities of import.

<sup>75</sup> These duties are imposed in a discretionary manner, creating difficulties for importers where there are requirements to report the taxes levied on pre-packaged items

<sup>76</sup> These duties are imposed in a discretionary manner.



SAARC country perspectives on non tariff barriers imposed by India indicate that certification requirements, a lack of infrastructure at inland ports, countervailing duties, multiple queries on bills of entry for agricultural products, restrictions on rail movement of goods, complicated and restrictive visa requirements, restrictions allowing the import of sensitive list items through specified ports and land custom stations, extensive documentation requirements for customs valuation and a lack of consolidated information on tax and custom duties are perceived to be some of the more stringent NTBs imposed by the country.

- Barriers to Trade Facilitation:

The widely held view regarding EDI and IT reforms was that they would lead to improvements in trade facilitation in India. However, despite these reforms having been initiated, significant barriers to trade facilitation remain in place. Some of the major barriers to trade facilitation lie in export and import clearances at ports. The dwell time for clearances at ports is between 3.45 days. Additionally, behind the border clearances remain onerous, with the 257 different signatures from 30 different agencies being required for clearances. Additionally, trade facilitation barriers in India include:

- Lack of multi modality and a poor use of the rail infrastructure:

For instance, the narrowness of roads leading to the Benapole border constrains trade along this route, with only 15 to 18 tonne trucks being able to pass on the road. India also increases its cost of trading with Pakistan through banning trade in cotton via the rail route

- Inefficiently run ports:

The lead time to import at sea ports in India, is 5.31 days, and the country is ranked at 90 out of 133 countries surveyed for the quality of its port infrastructure.

- Inefficiently run border crossings:

There is an absence of warehousing, testing and quarantine facilities at Indian borders, and the Wagah border also lacks an EDI facility. There is also a shortage of wagons available for trade with Pakistan. Rent seeking is yet another constraint, with complaints of Indian officials charging commissions of up to \$2.5 per tonne of export

The absence of air cargo facilities as well as inland water routes also act as barriers to trade facilitation in India.

#### *Pakistan:*

- Non-Tariff Barriers:

Pakistan, having significantly reduced tariff barriers on imports, has resorted to the extensive use of non tariff barriers to curtail trade in imports. Packaging and labeling requirements are the most extensively imposed barriers to trade, across 62 tariff lines. However, the implementation of these standards is weak in Pakistan and are not cited as major non-tariff barrier. Pakistan also imposes a sales tax of up to 15% and a withholding tax of up to 6%. (These duties are imposed in a discretionary manner, creating difficulties for importers where there are requirements to report the taxes levied on pre-packaged items).

Perceptions of SAARC countries regarding non tariff barriers imposed by Pakistan, highlight the country's positive list approach to India, lack of banking facilities to importing country's

banks, weak telecommunications infrastructure, absence of land routes and erratic air and sea travel restrictions, port restrictions and delays in the form of paperwork required, little consolidated information regarding foreign firms trading in the country, visa restrictions allowing movement along pre-specified routes, as the main non tariff barriers to entry.

- Barriers to Trade Facilitation:

The major barriers to trade facilitation within Pakistan include a poor transport infrastructure (the overall infrastructure ranking for Pakistan is 87, out of 133 countries)<sup>77</sup>, and a lack of coordination between the government agencies involved in the regulation, planning and control of various forms of infrastructure.

Though Pakistan has formed the National Trade and Transport Facilitation Project, which is cited as an example to be adopted by other South Asian countries, gains have been modest due to the organization's emphasis on custom reform ignoring logistical and infrastructural barriers to trade.

The specific barriers to trade facilitation within Pakistan include, poorly managed railway systems, (there is only one overland rail route for trade with India, through Wagah, which is constrained by a lack of wagons available for transport, limited hours for trading and a lack of customs facilitation procedures), absence of inland water transport systems and no emphasis on developing overland transport networks connecting Afghanistan to India.

- Political and Social Constraints:

A major constraint to trade facilitation has also been the political relationship of Pakistan with its neighbors which has often remained antagonistic and developments on the political and security front has led to restriction on trade and movement of goods to its neighboring countries. There needs to be a concerted effort to develop and sustain positive relationships with neighboring India and Afghanistan and to ensure that political differences do not in fact impinge on trade relations with the two countries. Additionally, Pakistan has made little effort to sustain relations with Bangladesh in the post partition period and this continues to be a barrier to trade between the two countries.

One recent development has been the worsening security situation in Pakistan, where terrorism threats have constrained movement of goods as well as the operation of businesses within Pakistan and have also acted as an effective deterrent to foreign investment.

#### *Bangladesh:*

- Non-Tariff Barriers:

Non tariff barriers imposed by Bangladesh consist of mainly non automatic licenses and prohibitions, which were levied across over 1000 tariff lines in the year 2000, 8% mandatory SPS as well as labeling requirements

- Barriers to Trade Facilitation:

Bangladesh, like Pakistan and India, suffers from poor infrastructure and transport facilities which act as barriers to trade facilitation. Specifically, the following are the cited barriers:

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<sup>77</sup> Logistical Performance Indicators 2010

- Absence of a multi modal system of transport, connecting roads, railways and inland waterways, the latter being extremely important transport systems considering the riverine geography of the country;
- Congested and inefficient major ports of entry, especially Chittagong sea port and the Benapole border, the latter has a delay of 5-7 days in the clearance of customs and there is no IT infrastructure to support custom clearance at the border. Frequent power failures also delay custom clearance at the Benapole border. The overall infrastructure rank of Bangladesh is extremely low at 125, out of the 133 countries surveyed.

#### *Sri Lanka:*

- Non-Tariff Barriers:

Sri Lanka imposes extensive non-tariff barriers, the majority of which consist of licensing requirements, inspections, prohibitions and authorizations across more than 400 tariff lines.

The most stringent of non tariff barriers imposed by Sri Lanka, are perceived to include KEMA certificate requirements, testing, registration of cosmetics, health certificate requirements.

- Barriers to Trade Facilitation:

Sri Lanka has made more gains in trade facilitation than any other South Asian country, having set up the Sri Lanka Trade Facilitation Committee as far back as the early eighties. In addition, Sri Lanka has also attempted to introduce IT reforms though the focus has remained modernizing custom processes with little emphasis on behind the border documentation requirements. Sri Lanka also has one of the most modern transshipment hubs in the region, i.e. the Colombo Transshipment Hub.

The major barriers to trade facilitation, in the case of Sri Lanka are behind the border issues, such as poor quality of roads connecting hinterland to ports and the absence of multi modal transport networks.

- *Political and Security Concerns:*

The recent security situation in the country has also severely hampered trade, particularly the movement of goods through the country. It is expected that the resolution of the situation will now lead to improvements in trade.

#### *Nepal:*

- Non-Tariff Barriers:

Nepal does not impose extensive non tariff barriers, barriers imposed mainly consist of prohibition to protect human health, imposed across two tariff lines in 1998.

- Barriers to Trade Facilitation:

There exist considerable barriers to trade facilitation in Nepal. Firstly, the geography of the country makes it difficult to create infrastructure linkages.

Delays in customs clearance for cross border rail operations are another barrier, increasing travel time between Khatmandu and Kolkatta, from 3-5 days to 8 days. Customs and transshipment delays between Khatmandu and Kolkatta are 55% of the logistical cost

associated with sending certain types of goods, compared to an average of 25% for other international routes.

There is also a lack of trained human resources as well as physical equipment to facilitate custom processes. In addition, there is no direct rail link between Nepal and Kolkata. There also exist congestion and inefficiencies at the Birgunj border with India.

#### **F. Case Study of Infrastructure in South Asia:**

The infrastructural/border (barriers over and above the procedural trade facilitation barriers) barriers to trade facilitation can be broadly categorized as lack of border infrastructure and traffic planning (border crossing in South Asia are not designed to handle trade volumes leading to congestion and delays), constraints relating to land ports at the border (due to increased trade storage dwell times have gone up and existing storage capacity is inadequate) and lack of cross border trade coordination.

##### Petrapole-Benapole Border (between Bangladesh and India) (ADB, 2008):

Currently 280 to 300 trucks per day, carrying Indian exports of primarily rice, fertilizers, raw material for chemicals, apparel, manufactured goods (tire, iron and steel articles), cross the Benapole border. On the other hand only 40-50 trucks per day carry imports from Bangladesh in jute, beetle nut and fish products. The average time for the Kolkatta to Dhaka trip is increased to 5-7 days, due to factors such as high congestion and delays at cross border points.

Delays on the Bangladesh side include delays owing to the inspection of trucks, processing of documentation and poor storage facilities. Barriers on the Indian side include narrowness of roads, allowing only 15-18 tonne trucks to pass, no bonded warehousing facilities, erratic power supply, single gate for passengers and cargo traffic and unsynchronized cross border inspection and documentation processes.

Average time loss for exports at Petrapole border for India is ninety days, compared to twenty one days at other Indian borders. Time loss is about ten percent of shipment value and total cost of this route is Rs. 2,543 compared to Rs. 1,752 for other highways in India.

##### Wagah Rail Route (between India and Pakistan) (Taneja, 2007):

Currently wagons are allowed only on a bi-weekly basis and are not allowed movement after 5:00 p.m. The reciprocal trade agreement between the two countries requires that the wagons balance be cleared over ten days. Wagon balancing takes place thrice a month and there is a scarcity of wagons until there is a zero balance between the two countries (i.e. until an equal number of wagons from both countries have traveled across the border).

Additionally, within borders only the wagons of the host country, are allowed to transport goods.

There is also a scarcity of wagons available. Between December 2006 to March 2007, only twenty rakes were allowed, whereas the demand was estimated to be for a thousand rakes. As a result, goods are stranded for an average of twenty days, with wagons taking as long as two months to arrange.

Due to the unavailability of wagons, Kolkatta steel importers have to transport via Singapore to Karachi, and then transport the imports to Lahore, increasing the transport costs of the trade significantly.

The Lahore Railway Station also has the added constraint of limited capacity and is unable to deal with more than twenty rakes and any increase in wagon/rake allowance on the part of India will require a reciprocal improvement in the capacity on part of Pakistan.

There is no provision for containerized cargo by rail and as a result all containerized cargo has to be routed by sea to the Karachi port.

There is a lack of space for customs agents and the accompanying infrastructure for customs facilitation at the Lahore Railway Station. There are also communication barriers between customs agents and railway officials.

### **G. The Major Informal Trade Routes between India and Pakistan:**

Source: Taneja. (2006)

The Appendix provides an overview of the nature and value of informal trade along the major trade routes between India and Pakistan.

#### *1. Dubai-Bandar Abbas-Heart-Kabul-Jalalabad-Bara:*

On this route, the orders for consignments are placed in Dubai and India by Afghani/Tribal agents. The consignments are containerized and enter Afghanistan through Iran where a customs duty is charged. The goods are then smuggled across the border to Pakistan using mules and donkeys as a mode of transport. The total time for the container to reach Bara on this route is approximately 35 to 45 days

There are no reciprocal goods from Pakistan, smuggled along this route.

The payment system in place on this route is the Orgai system of deferred payments, whereby payments from wholesalers to importers are linked to the sale of the smuggled imports.

The items imported on this route as well as their value, between the months of January and May 2005, is as follows:

**Table 3.9: Value of Items Traded**

ITEM	VALUE ('000 USD)
Cloth	128,000
Tires	1,000
Cosmetics	20,000
Spices	6,250
Medicine	1,600
Total Cost	156,850

Source: Taneja. (2006)

The total cost of informal trade per container, along this route is given below:

**Table 3.10: Cost of Informal Trade.**

Type of Cost	Cost
Cost of Transportation from Mumbai to Dubai	\$ 850
Insurance Cost from Mumbai to Dubai	\$ 50-100
Cost from Dubai to Bandarbas	\$ 800
Cost from Bandarbas to Islam Qila	\$ 1,800
Cost from Islam Qila to Bara (including custom duty, fare and bribe per consignments)	\$ 6,300
Total Cost	\$ 9,744

Source: Taneja. (2006)

## 2. Dubai-Bandar Abbas-Heart-Kabul-Wesh-Chaman:

On this route the containers enter Afghanistan, through Iran at Islam Qila, where custom duty is charged. Trucks are offloaded and stored at Wesh, from where the goods are later smuggled in to Pakistan. During worsening security situations, this trade is diverted through to Noshki as opposed to Chaman. The total transport time along this route is approximately, two months owing to the delays in warehousing the goods in Wesh.

There is no reciprocal trade in goods from Pakistan to India, along this route.

The nature and value of goods imported on this route is given in the table below:

**Table 3.11: Value of Items Traded**

ITEM	VALUE ('000 USD)
Tires	\$ 72,282
Cloth	\$ 1,066
Isphagol	\$ 1,350
Elaichi	\$ 8,500
Black Harees	\$ 3,825
Medicine	\$ 18,250
Paan Gutta and Paan Parag	\$ 3,306
Razor Blades	\$ 2,225
Beedi	\$ 8,572
Total Value	\$ 119,376

Source: Taneja. (2006)

Though the import of tire is on the positive list of imports from India, it figures largely in the informal trade due to the sales and excise tax levied by both countries on the formal imports of the commodity. However, smuggling from China had reduced the trade in Indian tires by tenfold between 2004 and 2005.

The cost of informal trade along this route is given in the table below:

**Table 3.12: Cost of Informal Trade.**

Type of Cost	Cost
40 foot Container cost from Mumbai to Dubai	\$ 850
Insurance (Mumbai to Dubai)	\$ 50-100
Cost-Dubai to Islam Qila	\$ 2,600
Customs Duty	\$ 1,750
Container Transport Cost (Islam Qila onwards)	\$ 1,670
Total Cost	\$ 6,000

Source: Taneja. (2006)

The transactions along this route mostly take place in cash, however, large buyers of smuggled goods also form loan agreements with importers based on mutually agreed repayment terms.

## 3. India-Dubai-Karachi Route:

There are two channels of informal trade along this route. Firstly, there is the trade through Khepias (i.e. agents of involved in smuggling) and then there is the trade that takes place through quasi-legal channels, i.e. goods from India are disguised as originating from Dubai.

The Khepia system along this route involves air travel, with Khepias making almost daily trips to Dubai, constituting almost 7% of the daily traffic between Karachi and Dubai and carrying 70 to 80 kgs per trip. A Khepia earns approximately \$ 50/ day.

The type of goods imported using Khepias and their value is given in the table below:

**Table 3.13: Value of Items Traded**

ITEM	VALUE ('000 USD)
Cloth	\$ 45,350
Cosmetics	\$ 36,280
Jewellery	\$ 4,000
Blankets	\$ 5,000
Other	\$ 5,070
Total	\$ 90,700

Source: Taneja. (2006)

The cost of trade along this route, through Khepias, is as follows:

**Table 3.14: Cost of Informal Trade**

Type of Cost	Cost for Long term Khepia
Taxi Charges in Karachi	\$ 4.20
Taxi Charges in Dubai	\$ 2.50
Return Ticket	\$ 166
Visa Fee	\$ 3,300
Hotel Charges	\$ 0
Food	\$ 5/day

Source: Taneja. (2006)

Quasi-Legal trade between India and Pakistan is most often routed through the Dubai port, though Singapore and Hong Kong ports also figure in the minor trading routes of informal trade between the two countries.

The term quasi-legal is used in the context that the trade is recorded officially however, not as trade between India and Pakistan, per se.

In the case of cloth being imported through this route, the cloth is downloaded at the Dubai port and stored in godowns awaiting forged Rules of Origin Certificates, after which the cloth is boarded on to a Karachi bound vessel. Tires, on the other hand, are transported directly from one ship to another, bound for Karachi, since the longevity of tires is affected if they are placed in storage, as well as the higher costs associated with the unloading and storage of tires.

The items imported along this route and their value, for the time period between January and May 2005, is given in the table below:

**Table 3.15: Value of Items Traded**

ITEM	VALUE ('000 USD)
Cloth	\$ 2,500
Pharmaceutical and Textile Machinery	\$ 75,000
Electroplating Chemicals (value of imports gone up by 80% in 2-3 years)	\$ 15,000
Richshaws and motor bike parts (value of imports has fallen due to environmental legislation in Pakistan banning these goods).	\$ 5,000
Total	\$ 97,500

Source: Taneja. (2006)

The cost of importing these items through the quasi legal route is given below:

**Table 3.16: Cost of Informal Trade**

Type of Cost	Cost
Freight from Mumbai to Dubai	\$ 850/40 ft container
Freight from Dubai to Karachi	\$ 200/40ft container
Insurance Costs	\$ 100-200
Total additional costs incurred at Dubai	4% as well as a duty of 5% that is rebated once the item has been exported.

Source: Taneja. (2006)

The financing arrangements for quasi-legal trade is the same as the financing of any other legal trade transaction.

#### 4. Sind Cross Border Route:

There are three modes of trade along this route, i.e. through areas along the border that do not have electric fencing, through trucks going across the border and through the digging of trenches along the border. All three modes of trade involve bribing the border patrol at both sides of the border.

The nature and value of imports traded along this route is given in the table below:

**Table 3.17: Value of Items Traded**

ITEM	VALUE ('000 USD)
Cloth	7,800
Medicine	10,400
Cosmetics/Jewelry	2,600
Spices	1,300
Livestock (mostly cattle)	33,340
Total	55,500

Source: Taneja. (2006)

The nature and value of exports traded along this route include:

**Table 3.18: Value of Items exported along this Route**

ITEM	VALUE ('000 USD)
Cotton Cloth	1,775
Dry Fruit	375
Others (foot wear, rickshaw parts, livestock)	375
Total	2,525

Source: Taneja. (2006)

As can be seen from the two tables the value and range of items imported along this route far exceed the range and value of items exported.

The cost of informal trade along this route consists of bribes which are approximately 5-10% of the value of the goods smuggled. The financing of the smuggling trade along this route is primarily through the hundi system.

#### 5. Dehli-Amritsar-Lahore Route:

The informal trade along this route takes place through the Samjhota Express and is through two modes, i.e. travellers taking items across the border and khepias involved in the trade. However, the majority of the trade is carried out through the khepias. The khepias carry



goods of an approximate value of \$1,250 on each trip and pay a 5-15% bribe on value. There are approximately 3200 to 4,000 khepias on the Samjhota Express every month.

The annual value of goods imported along this route is \$7.15 million and the value of goods exported along this route is \$ 8.19 million. Along this route, the value of exports is more than the value of imports.

The items imported include clothes, cosmetics, spices, jewelry, rickshaw and motorcycle parts and pharmaceuticals. Exports include clothes, cigarettes, dry fruit, video games, footwear, prayer mats and bed sheets.

**Appendix 4:**  
**Exploring the Potential for Intra-regional Trade in Goods and Services**

**Table 4.1. Grubel Lloyd Index indicating Intra-industry Trade (1991 and 2004)**

Sector	Reporter/ Partner	IIT (1991)				IIT (2004)			
		Bangladesh	India	Pakistan	Sri Lanka	Bangladesh	India	Pakistan	Sri Lanka
Agricultural Materials	Sri Lanka	16.4	23.1	97.6		2.2	52.9	94.5	
Agricultural Raw Materials	Sri Lanka		42.1	94.2		0.3	93.4	6.1	
Chemicals (SITC 5)	Sri Lanka	31.1	16.6	11.8		42.6	28.4	10.3	
Food (SITC 0 + 1 + 22 + 4)	Sri Lanka		20	93.5		4	47.5	68	
Manufactures	Sri Lanka	24.8	4.1	3.8			32.9	9.8	
Machinery & Transport Equipment	Sri Lanka		0.1	19		32.1	33.6	20.9	
Textiles as 26 + 65 + 84	Sri Lanka		3.5	3.2		80.3	33.9	9.4	
Other manufactures (SITC 6 + 8-68)	Sri Lanka	57.3	61.5	78.6		86.7	37.9	35.8	
Agricultural Materials	India	6.24		74.5	23.1	9		69.5	52.9
Agricultural Raw Materials	India	17.49		22.9	42.1	96.3		32.65	93.4
Chemicals (SITC 5)	India	6.18		11.9	16.6	41		1.36	28.4
Food (SITC 0 + 1 + 22 + 4)	India	5.04		96.9	20	4.4		76.58	47.5
Manufactures	India	2.63		90.8	4.1	15.9		14.19	32.9
Machinery & Transport Equipment	India	7.97		49.1	0.1	4		8.24	33.6
Textiles as 26 + 65 + 84	India	1.28		8.2	0.2	21.5		89.69	17
Ores & Metals (SITC 27 + 28 + 68)	India			18.9	61.5	9.8		3.07	37.9
Other manufactures (SITC 6 + 8 – 68)	India	0.74		31.7	3.5	10.3		55.77	33.9
Agricultural Materials	Bangladesh		6.24	70.6			9	76	2.2
Agricultural Raw Materials	Bangladesh		17.49	62.5			96.3	77.9	0.3
Chemicals (SITC 5)	Bangladesh		6.18		16.4		41	37.2	42.6
Food (SITC 0 + 1 + 22 + 4)	Bangladesh		5.04				4.4	71.4	4
Manufactures	Bangladesh		2.63	6.1	31.1		15.9	3.1	93.4
Machinery & Transport Equipment	Bangladesh		7.97	18.9			4	6.5	32.1
Textiles as 26 + 65 + 84	Bangladesh		1.28	35.7	14.3		21.5	28.6	80.3
Ores & Metals (SITC 27 + 28 + 68)	Bangladesh						9.8	9.2	
Other manufactures (SITC 6 + 8 – 68)	Bangladesh		0.74	5.8	24.8		10.3	1.6	86.7
Agricultural Materials	Pakistan	70.6	74.5		97.6	76	69.5		94.5
Agricultural Raw Materials	Pakistan	62.5	22.86		94.2	77.9	32.65		6.1
Chemicals (SITC 5)	Pakistan		11.87		11.8	37.2	1.36		10.3
Food (SITC 0 + 1 + 22 + 4)	Pakistan	95.9	96.88		93.5	71.4	76.58		68
Manufactures	Pakistan	6.1	90.77		3.8	3.1	14.19		9.8
Machinery & Transport Equipment	Pakistan	18.9	49.14		19	6.5	8.24		20.9
Textiles as 26 + 65 + 84	Pakistan	35.7	8.21		2.3	28.6	89.69		3.6
Ores & Metals (SITC 27 + 28 + 68)	Pakistan		18.86		78.6	9.2	3.07		35.8
Other manufactures (SITC 6 + 8-68)	Pakistan	5.8	31.72		3.2	1.6	55.77		9.4

Note: Grubel–Lloyd index varies between zero (indicating pure inter-industry trade) and 100 (indicating pure intra-industry trade)

Source: ADB-UNCTAD (2008)

**Table 4.2. Frequency Distribution of Ratio Between Unit Values of Pak Exports and Indian Imports**

		All common items		> US\$ 1 million	
Ratio of unit values (Pak/India)		FY03	FY04	FY03	FY04
Less than or equal to	0.2	140	204	13	20
	0.4	146	179	24	27
	0.6	91	142	6	30
	0.8	63	87	9	11
	1	48	80	9	16
	1.2	45	59	5	12
	1.4	26	37	6	4
	1.6	15	35	2	8
	1.8	16	28	0	3
	2	11	15	3	2
Above 2		67	118	6	20
Common Items with UV		668	984	83	153
Total No. of Common Items		796	1181	796	1181

**Table 4.3: Frequency Distribution of Ratio Between Unit Values of Pak Imports and Indian Exports**

Ratio of unit values (Pak/India)		Common Items				Common Items which are not allowed to Import from India			
		All		> US\$ 1 million		All		> US\$ 1 million	
		FY03	FY04	FY03	FY04	FY03	FY04	FY03	FY04
Less than or equal to	0.2	152	210	8	31	138	194	7	29
	0.4	203	254	38	44	181	236	30	40
	0.6	186	263	33	55	163	242	27	47
	0.8	167	257	42	51	147	236	36	46
	1.0	161	231	45	68	145	208	40	59
	1.2	131	180	36	56	111	157	30	46
	1.4	97	134	15	31	81	116	12	27
	1.6	72	112	14	22	62	107	10	21
	1.8	56	92	10	22	51	84	10	21
	2.0	59	67	7	13	54	62	7	13
Above 2		372	568	59	118	347	539	54	114
Common Items with UV		1656	2368	307	511	1480	2181	263	463
Total No. of Common Items		1904	2646	1904	2646				

**Box 4.1: Trade Profiles of SAARC Member Countries (contd. on next page)**

*Pakistan:* Pakistan's largest export industry is that of textiles, which accounted for 57 percent of total exports<sup>78</sup>. However, textile exports have recently shown a declining trend falling by 9.5% between 2007 and 2008 due to the worldwide economic downturn. Some of the of the most important exports, namely readymade garments, cotton yarn, and bed linen faced significant decreases between fiscal year 2007 and fiscal year 2008 (21.7 percent, 15 percent, and 10.2 percent respectively).

*Bangladesh:* The textile and clothing sector dominates a large part of the country's international trade both with respect to imports and exports - 77% of total exports come from clothing and a considerable share of total imports comes from textiles, yarns, and clothing, and textile machinery. Most of Bangladesh's clothing exports are directed at Western markets - in the US market, 61% of the top clothing products consist of clothing exports from Bangladesh, while in the European Union the comparable share was as high as 85% (Rahman et al. 2008). In comparison, the intra-regional trade of Bangladesh with South Asian countries is very small, accounting for only 3% of total intra-South Asian exports in 2007. Among South Asian countries, India is the major export destination for Bangladeshi products, accounting for 70.4% of the country's intraregional exports (ADB, 2008). Bangladesh's major trading partners in the South Asian region are India and Pakistan. An analysis of Bangladesh' regional trading patterns and demand and supply gap in Bangladesh's key industries indicates that there is not only potential to benefit from increased intra-regional trade in goods and services but there are also immense possibilities for development of intra-industry linkages, where regional investors may contribute.

*India:* About half of India's total exports are directed towards Asia and the Association of Southeast Asian Nations (ASEAN) countries with Europe and the US coming next.<sup>79</sup> Although India's trade to GDP ratio is still modest compared to international standards, it has entered into various trade agreements mainly with other developing countries such as the global system of trade preferences (GSTP), SAFTA, and an FTA with Sri Lanka. India has also signed a comprehensive economic cooperation agreement (CECA) with ASEAN, European Union, Japan and Korea. However, India's trade with most of the SAARC countries as a percentage of total trade is less than 1%.

*Nepal:* Of the SAARC members, Nepal's performance stands out with respect to intra-regional trade. Nepal's exports to SAARC members as a share of its total exports ranged from 53.9% in FY2003 to 72.5% in FY2007, and of this, India's share ranged from 97.5% to 98.4%. Imports from SAARC countries ranged from 55.8% to 67.0% as a share of total imports during FY2003– FY2007. Countrywise, the share of imports from India in the total imports from SAARC increased from 99.1% in FY2003 to 99.5% in FY2007. Taking imports and exports together, trade with India reached accounted for 68% of the trade in 2007, indicating an overdependence on India<sup>80</sup> Trade with India is facilitated by free and unlimited convertibility of the Nepalese rupees against Indian currency, a duty-free market access to Nepal's primary goods and selected manufacturing goods to Indian market.

*Sri Lanka:* The country's export profile is dominated by manufacturing exports which contribute 78% to total exports, followed by agriculture exports (mostly from tea)

<sup>78</sup> Commerce Division, 2008.

accounting for 19% of total exports. Sri-Lanka's export composition is dominated by textile and clothing (T&C). Of total manufacturing exports, clothing exports account for 57% of the total manufacturing exports and 42% of total export earnings in 2006. Most of Sri-Lanka's clothing exports are directed to United States and European Union regions, followed by Japan and the ASEAN countries. Of total Sri-Lanka's exports, only a small amount is directed to its SAARC partners, with the exception of India, with which Sri Lanka has rapidly strengthening export trade relations as a result of the recent FTA signed between the two countries.

*Bhutan:* Being a small, landlocked economy, Bhutan is constrained by limited resources and a small market. Therefore, government efforts in the past have been directed at using international trade to boost economic performance, resulting in a trade to GDP ratio as high as 84.4% between the period 2004-2006. The most important trade policy instrument employed by the government is the bilateral FTA with India. Since India accounts for about 95% of Bhutan's exports and 80% of imports, this agreement ensures that Bhutan follows more or less an open economic policy. Bhutan also has a PTA with Bangladesh, which is Bhutan's second largest export market. Trade with other SAARC member countries and the other regions is negligible, although Bhutan is currently in the process of establishing bilateral trade agreements with Nepal and Thailand.

*Maldives:* Maldives has a very open economy with a high dependence on imports and the need to earn foreign exchange from tourism and exports of fish products to finance its imports. Singapore accounts for the major import market (24-26%), followed by the UAE (21%). From amongst the SAARC members, Maldives imports from Sri-Lanka and India, which account for 6% and 10% of total imports of the country, are notable. In Maldives, imports of goods outweigh exports of goods. The export base is very narrow, almost totally dependent on the marine sector. Thailand is the main export market for the country, followed by Japan and UK. Within SAARC member states, Maldives only has notable exports to Sri-Lanka, which account for 13% of the total exports for the country.

#### **Box 4. 2: Enhancing Intra-regional Trade through Growth in Intra-industry Trade – Case Study of the Textiles Sector**

The textile sector has been identified as the sector where the exports of the major trading partners of the SAARC region are concentrated. The possibility of intra-regional trade will now be analyzed in depth in a sector where the SAARC countries are at different degrees of competitiveness and compete in the third market.

The textiles and clothing sector is South Asia's largest manufacturing sector. It is also a major source of employment and foreign exchange, providing over 55 million direct employment and close to 90 million indirect employment opportunities to workers in the labour-abundant region<sup>81</sup>. South Asia exported apparel and textiles worth over US\$ 38 billion in 2005 (3 per cent of total world exports of textiles and apparel) and imported apparel and textiles worth US\$ 6 billion. With over half of its exports being apparel, a majority of its imports worth US\$6 billion constituted of textiles. It appears that there is a rather clear division of labour in terms of the region's sectoral composition and specialization in exports. While the apparel sector dominates the total apparel and textile exports of Sri Lanka and Bangladesh, textiles account for a majority of Pakistan's exports. The share of apparel and textiles in the exports of India are almost equally distributed.

<sup>81</sup> Tewari, 2007.

A look at the import intensities of the major trading partners in the SAARC region shows that much of the textile value chain is localized in the region. The import intensity is highest in Sri Lanka who imports as much as 55 per cent of the value of their exports. Import intensity of Pakistan is the lowest at 5 per cent. However, although import intensities of India and Bangladesh are much lower than that of Sri Lanka, in terms of value the amount India spends on textile imports is higher than that of Sri Lanka. This suggests that in terms of value, developing intra-industry trade in this sector may be more beneficial than it seems at the outset. From the import intensities, it can be further seen that Bangladesh has been more successful in generating extensive backward linkages than Sri Lanka. Table IV.5 shows that out of the four countries, Bangladesh and Sri Lanka are net importers of textile whereas India and Pakistan are net exporters of textile, bringing in the possibility of the important role India and Pakistan can take in catering to the textile needs of the Bangladesh and Sri Lankan apparel markets.

**Table 4.4: Import intensities of South Asia's Textile and Apparel exports in 2005**

India	11%
Pakistan	5%
Bangladesh	27%
Sri Lanka	55%
<b>TOTAL</b>	<b>16%</b>

*Note: Bangladesh figures are for 2004.*

Source: Tewari (2007)

Thus, each country in the region has a comparative advantage within a different subsector of the overall textile and clothing sector. This further strengthens the case for intra-industry trade between SAARC countries. Pakistan has a comparative advantage in producing bed linen, home furnishings, carpet and basic menswear whereas Sri Lanka's strength in the export market is in lingerie, swimwear and formal wear whereas the comparative advantage for Bangladesh lies in cotton and man-made fibre men's wear in sports and casual wear. India is popular among buyers for women's tops, blouses, skirts, embellished and embroidered clothing and for men's bottoms.

**Table 4.5: Trade Balance in South Asia's Textile and Apparel Sector in 2005**

	<b>Apparel</b>	<b>Textiles</b>	<b>Total</b>
<b>India</b>	9,154,400,443	6,533,990,136	15,688,390,579
<b>Pakistan</b>	3,607,192,910	6,618,175,131	10,225,368,041
<b>Bangladesh</b>	5,935,592,344	(887,547,635)	5,048,044,709
<b>Sri Lanka</b>	2,769,262,219	(1,412,298,572)	1,356,963,647
<b>TOTAL</b>	<b>21,466,447,916</b>	<b>10,852,319,060</b>	<b>32,318,766,976</b>

*Note: Bangladesh figures are for 2004.*

Source: Tewari (2007)

Despite the tremendous potential for vertical intra-industry trade in textiles in the SAARC region as demonstrated in the forgoing discussion, there is very little intra-regional trade in this sector. Bangladesh and Sri Lanka source the majority of textiles and other inputs from East Asia and China (See Table 4.8). One reason for this is the entrenched buyer preferences of multinationals located in the apparel sector of Bangladesh and Sri Lanka, whereas another is the price advantage that East Asian countries enjoy over South Asia. The SAARC region is characterized by higher energy and transportation costs, coupled with a higher cost of doing business because of bureaucratic red tape and lack of transparency.

Moreover, despite the fact that both Pakistan and India are the leading textile manufacturers in the region, neither country produces the type of fabric required by apparel manufacturing countries. For instance, Sri Lanka, which specializes in the production of lingerie, swimwear and non-cotton outerwear is not able to rely on Pakistan or India as these countries are better known for their cotton fibre base whereas Sri Lanka's requirement is for manmade fibre yarn and fabric.

It is important to note that the opening up of trade between Sri-Lanka and East Asia in the manufacturing sector has also helped facilitate the broadening of linkages in other spheres of the process (i.e. from fabric and accessories to transfer of knowledge and technology). This 'bundling' of services makes East Asian countries more appealing. With approximately 40 per cent of foreign investment in the Sri Lankan textile industry being from East Asia also has a direct impact in securing machines and accessories from the same region. In contrast, investment in the sector by South Asian countries is less than 2 per cent of total FDI in textiles and apparel in the region.

#### **Box 4.3: Enhancing Intra-regional Trade through Growth in Intra-industry Trade – Case Study of the Automobiles Sector**

The automobile industry in South Asia has boomed in recent years along with the expansion of global economic activity between 2000 and 2007. This has been driven both by foreign investment and in India by local automobile and component manufacturers. India and Pakistan have the most substantial automobile manufacturing sectors in South Asia. Sri Lanka has a nascent automobile sector, which comprises largely of assembly of imported parts and components. India remains the major player in automobile production in the region and is an emerging player globally as well.

A number of foreign automobile manufacturers have been attracted to the South Asian region due to the very low manpower costs, a large potential market and in some cases due to environmental problems in the home countries. The rise of managerial capabilities in the region with a large crop of top class managers from the region, who are manning leading enterprises within the region and in the industrial countries and the increasing capacity of enterprises in the region to acquire companies around the world are yet another positive remark for attracting FDI for the region. Within the SAARC region, India has predominantly attracted the majority of FDI in the automobile sector with foreign companies like Maruti Suzuki, Hyundai, Honda, General Motors and others occupying 83% of the share of total production of the automobile sector of the country (Mohnot, 2007).

India has developed a comparative advantage in producing automobile components with the automobile component industry being endowed with advantages like low labour cost, availability of skilled labour and a systemic vendor development. Hence, the Indian prices of automobile components are 10% to 25% lower compared to the global prices. These have led not only to the growth of the industry domestically, but also of exports. During 2003-04, the exports of auto components crossed the figure of USD 1 billion having recorded a healthy growth of 25%. The exports in the succeeding year expanded to a level of USD 1.4 billion. In 2005-06 exports rose by 28% to resulting USD 1.8 billion. The USA and Europe, with high AQL (accepted quality level) absorb over 60% of India's export of automobile components.

Pakistan's automotive industry has been import driven and depends largely on imports from Japan, Republic of Korea, Peoples' Republic of China, the US and even India. It is tilted towards assembly than manufacturing. The inadequacy of the

supply chain in the matter of availability of good quality components at competitive prices, limits competitive strength and healthy and efficient development of the industry. Hence if Pakistan imports more components from India at a much cheaper price than from Japan, Korea, China and US, the cost assembling and repairing of automobiles will be cheaper. Similarly the rest of the South Asian countries who import a large amount of components from outside the region can also shift their attention to India as India exports large volumes of automobile components to outside the region. Thus it is important to take advantage of India's strength as a regional giant in the automobile sector and to enhance intra-industry trade in this sector.

The major constraint in the way of increased intra-industry trade in the automobile sector between SAARC countries has been the high levels of on motor vehicles and parts and components in the region. De and Jayaratne (2009) conduct an analysis of the average tariffs on certain critical parts and components, namely; Bumpers and parts thereof (HS870810), Parts and other accessories of bodies for motor vehicles excluding bumpers and safety belts (HS 870829), Radiators (HS 870891) and Road wheels and parts and accessories thereof (HS 870870) to show that in general tariffs on automobile parts are relatively high in the region.<sup>82</sup> Bangladesh and Nepal maintain a 12% and 15% average tariff on all of these components on all South Asian imports. Pakistan maintains a 35% average tariff on all of these components on all South Asian countries except Sri Lanka (11.5-23.1%) due to the PSFTA. Sri Lanka maintains a 20% tariff on imports from India and Pakistan due to the preferential tariff for SAFTA (MFN is 28%) and a 8.4% tariff for imports from Bangladesh and Nepal on all these parts and components except for HS 870810 (bumpers and parts thereof) which is charged at 12% (India), 6% (Pakistan) and 4.5% (LDCs). Encouragingly India maintains the lowest tariffs on parts and components imports with 0% duty on all four tariff lines for all South Asian countries except Pakistan which is charged at the MFN rate of 10%.

There is potential scope for cost savings for Pakistan, Sri Lanka and Bangladesh if automobile trade with India is established. Increased intra-industry trade will also pave the way for both intra-regional and foreign vertical intra-industry investment in the region in the long term, enhancing the region's potential as a favoured destination for product fragmentation in the automobiles sector.

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<sup>82</sup> De and Jayaratne (2009)



**Appendix 5:**  
**Deepening Investment Integration in South Asia**

**A. Overview of Investments in South Asia**

**Table 5.1: FDI Flows by Sector in India (\$million)**

	2004	2005	2006
Cement and Gypsum Products	0	452	243
Chemicals	198	447	206
Construction	152	151	985
Drugs and Pharmaceuticals	292	172	215
Electrical Equipment	721	1,451	2,733
Fuel	166	94	250
Food Processing	38	42	98
Services Sector	469	581	4,749
Telecommunications	129	680	521
Transportation	179	222	466

Source: South Asian Economic Report (2008)

**Table 5.2: FDI Flows by Sector in Pakistan (\$million)**

	2005	2006	2007
Communications	518	1,938	1,899
Financial Business	269	329	930
Oil and Gas Explorations	194	313	545
Tobacco and Cigarettes	7	3	390
Power	73	321	205
Trade	52	118	173
Construction	43	90	157
Petroleum Refining	24	31	155
Beverages	6	6	89
Personal Services	24	62	84

Source: South Asian Economic Report (2008)

**Table 5.3: FDI Flows by Sector in Bangladesh (\$million)**

	2004 (\$ million)	% Share
Telecommunications	237	35.9
Energy and Power	133	20.1
Textiles	117	17.7
Other Services	71	10.7
Chemicals	47	7.2
Leather and Rubber	19	2.8
Engineering	13	1.9
Misc/Nec	10	1.5
Agro-based	9	1.4
Food and Allied	3	0.5
Glass and Ceramics	1	0.2
Printing and Publications	1	0.1

Source: South Asian Economic Report (2008)

### Country Specific Barriers to Foreign Direct Investment:

India has made a conscious effort to liberalize its financial regulations and offers up to ten years of tax exemption for 100% FDI, as well as free repatriation of all foreign investments, dividends, profits and proceeds of shares of listed companies by non-residents (ADB. 2009). India, like Pakistan, allows 100% FDI in all sectors with the exception of tobacco, electronic aerospace, defense equipment, railways, atomic energy, gambling, basic agriculture, legal services as well as retail trade. (ADB. 2009).

However, despite the liberalization of direct investment regulations in recent years Indian companies seeking to invest in financial sectors abroad require approvals (Dutz. 2010). Restrictions are also imposed on the sale of investments to non-residents as well as on non-resident investors wishing to open domestic currency accounts.

Pakistan allows foreign direct investments in infrastructure and agriculture and the services and social sectors of the economy, provided the investment is in excess of US\$ 300,000 (Dutz. 2010). Any investment outside Pakistan requires approval.

Bangladesh imposes restrictions on all investments barring those made in the industrial sector while imports are allowed by permit to only industrial consumers (Dutz. 2010). All outward direct investment from Bangladesh requires government approval, which is rarely extended in the case of resident owned capital.

Investment policies in Sri Lanka allow for direct investment in the following sectors of the economy; restricted investment in the growing and processing of cocoa, coconuts, rice, rubber, spices and tea, mining, timber processing (provided that local timber is used), mass telecommunications, freight travel, shipping lines and education (ADB. 2009). Outward investment approvals in Sri Lanka prioritize investments that promote domestic exports (Dutz. 2010).

Nepal allows 100% equity participation by foreigners in all sectors with the exception of some included in the negative list, such as cottage industries, personnel services, arms and ammunition, real estate, motion pictures, currency and coinage, retailing, internal courier services, atomic energy, poultry farming, among others. (ADB. 2009). Outward investments require prior approvals. (Dutz. 2010).

**Box 5.1: Controls on Direct Investments in South Asia: Illustrative Examples***Inward Direct Investment:*

India:	Restricted (less than 100 percent) in private sector banks; insurance; telecommunications; nonretail trading companies; mining for coal; diamonds and other precious stones; and airports. Restrictions also in Insurance sector and print media. Not permitted inter alia in retail trade; housing and real estate; agriculture (with exceptions); and plantations (excluding tea).
Pakistan:	Permitted in services, infrastructure, social and agriculture conditions subject to the condition that the foreign equity investment be at least US\$300,000 or equivalent. Not permitted in production of alcoholic beverages.
Bangladesh:	All investments, except in the industrial sector, require approval.
Sri Lanka:	Restricted (40 percent or less) in growing and primary processing of cocoa, coconuts, rice, rubber, spices and tea; mining and primary processing of non-renewables; timber processing using local timber; deep-sea fishing; mass communications; freight; travel; shipping agencies; education. Permitted only up to limit approval by government in: air transport; coastal shipping; alcoholic beverages; large-scale mining of gems. Not permitted in retail trading with capital of less than US\$1 million; coastal fishing.
Nepal:	All investments require approval. Foreign securities firms permitted for form JVs with ownership restricted to 40 percent. Not permitted in cottage and small-scale industries.
Bhutan:	Controls on all direct investment transactions.
Afghanistan:	All investments require approval. Only through JVs.

*Outward Direct Investment:*

India:	Overall limit of US\$100 million in one financial year through automatic route. Approval in India and abroad required in financial sector activities.
Pakistan:	Prior approval under foreign exchange laws. Equity-based investments, including portfolio investments also require prior permission.
Bangladesh:	All outward transfers of capital require approval (for resident-owned capita, approval only in exceptional cases).
Sri Lanka:	Prior approval of MOF; priority to investments promoting domestic exports.
Nepal:	No permission for Nepalese residents, except by government notice.
Bhutan:	Controls on all direct investment transactions.

Source IMF, Annual Report on Exchange Arrangements and Exchange Restrictions.

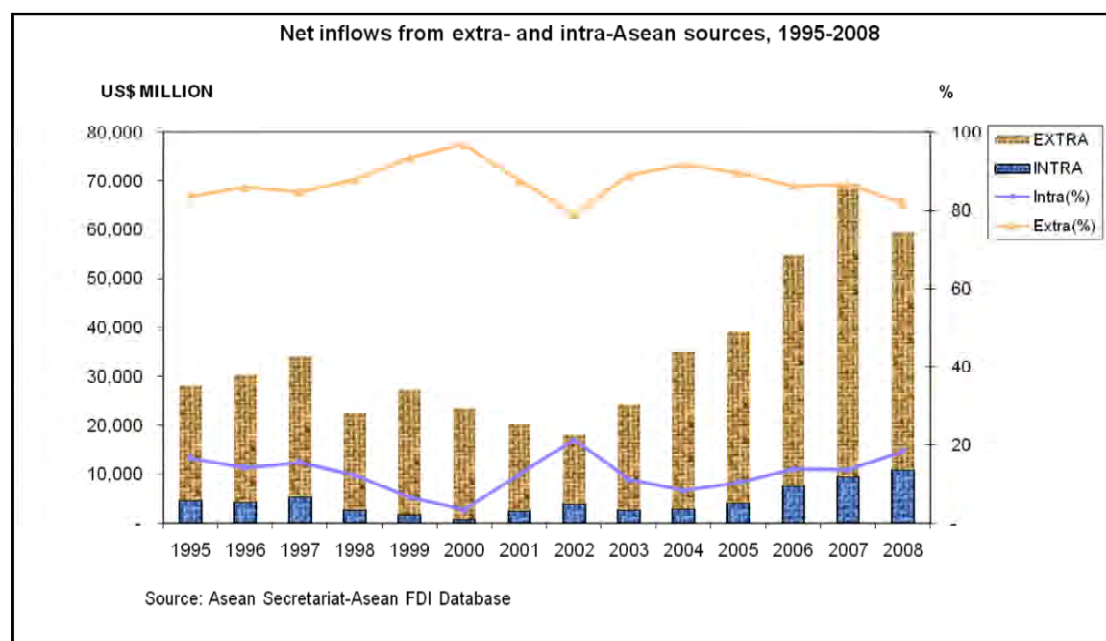
### Box 5.2: Vertical Integration in Textiles and Clothing - Brandix India Apparel City

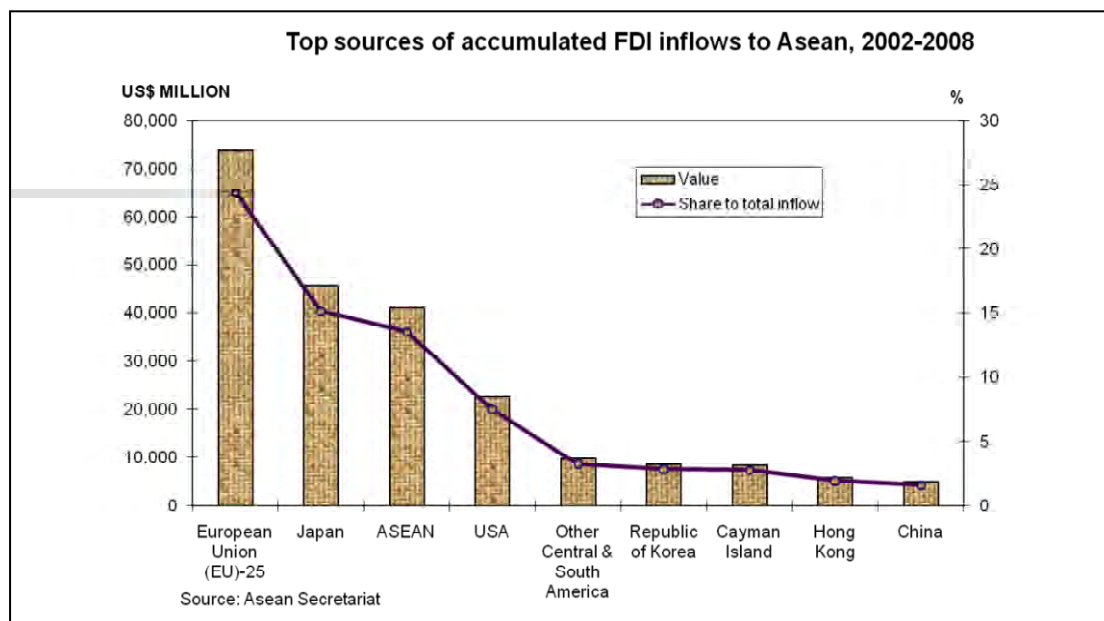
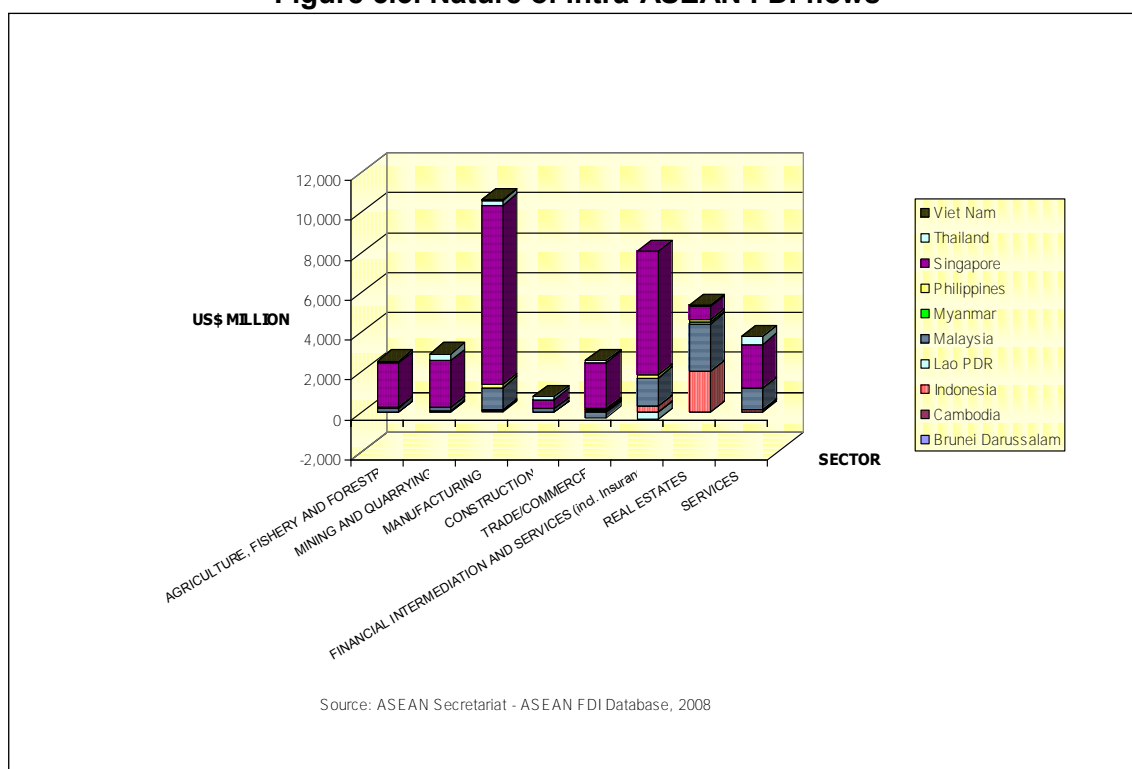
The Brandix India Apparel City (BIAC) located in the port city of Visakhapatnam in the eastern state of Andhra Pradesh, India, is an integrated apparel supply chain city, managed by Brandix Lanka Ltd., Sri Lanka's largest apparel exporter. According to Brandix the BIAC, spread over 1000 acres of land, brings alive the 'Fibre to Store' concept and is expected to be a "fully integrated one-stop-shop" with the capacities in spinning, fabric, accessories and apparel manufacturing. It would draw together world class apparel supply chain players with the view of complete vertical integration and BIAC has already been successful in attracting these investors. And this smooth flowing verticality is expected to ensure minimum lead times which they consider to be the most critical competitive factor.

To leverage India's immense potential for economies of scale and other robust business fundamentals, Brandix has invited experts in the industry to join its value chain to enjoy mutual benefits of investment. BIAC has been built on the premise that the apparel sector demands speed to market, least cost, flexibility and the assurance of compliance. And investments have been made based on financial and operational incentives which have been heightened by the duty free status of BIAC. Furthermore, the greater efficiency in distribution and front end costs resulting from the single location of all value chain partners, a centralised logistics unit and a Just in Time process, is expected to ensure optimum returns. The main strength is in the pool of resources such as labour, power and water that are available in bulk in India, at a relatively low cost and also access to the Indian market which is a promising emerging market. The BIAC hosts knit fabric mills, accessory producers such as button and elastic manufacturers, printing lamination, etc., with the head quarters in Sri Lanka focusing more on front end activities.

## B. Overview of Investment in ASEAN

Figure 5.1. Extent of Extra-regional and Intra Regional FDI flows in ASEAN (1995-2008)



**Figure 5.2. Sources of FDI Inflows to ASEAN.****Figure 5.3. Nature of Intra-ASEAN FDI flows**

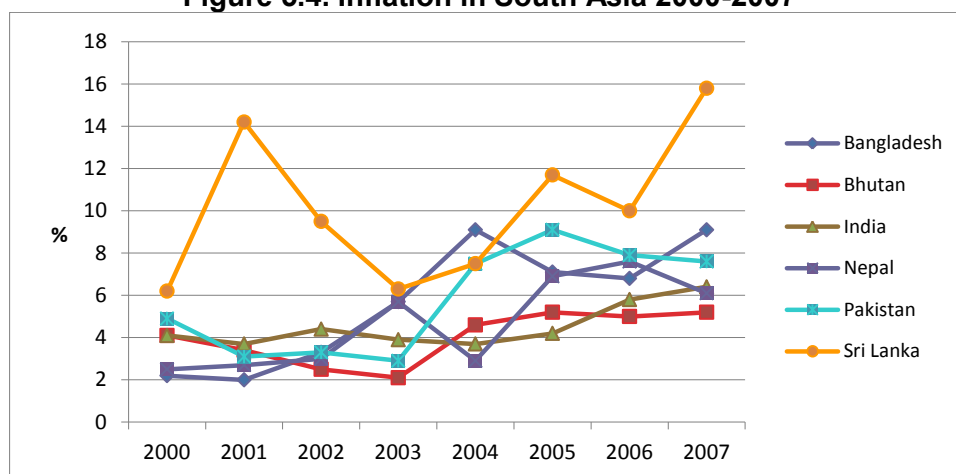
### C. Factors that Contributed to Investment Integration and Growth of Product Fragmentation in South East Asia: Comparison between ASEAN and SAARC countries<sup>83</sup>

Based on the factors that contributed to the growth of production fragmentation in ASEAN, it is useful to compare South Asia's performance in these areas.

#### Macroeconomic Stability

There is greater price instability in South Asia. Figure 5.4 below suggests that inflation in South Asia has been relatively high between 2000 and 2007, particularly in Sri Lanka, Bangladesh and Pakistan.

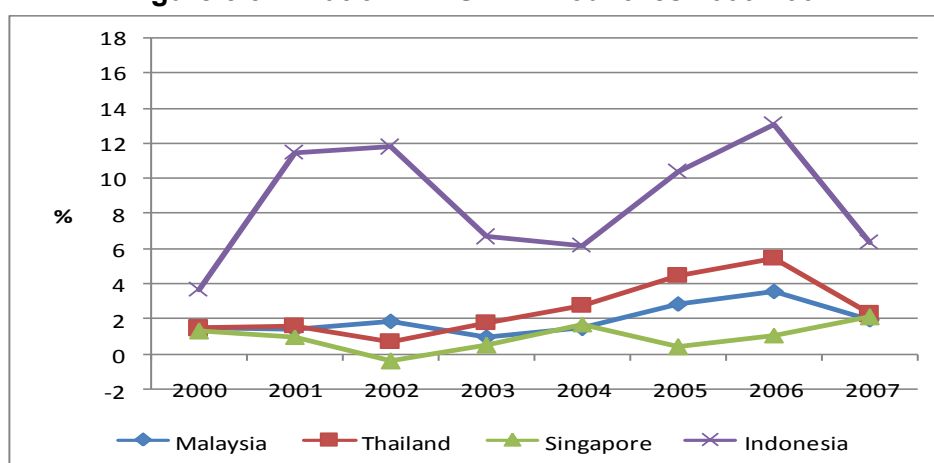
**Figure 5.4. Inflation in South Asia 2000-2007**



Source: IMF Global Financial Statistics 2008

However the ASEAN countries have managed to maintain a greater degree of price stability, except for Indonesia, which has not been a preferred location for production fragmentation in ASEAN.

**Figure 5.5. Inflation in ASEAN Countries 2000-2007**



Source: IMF Global Financial Statistics 2008

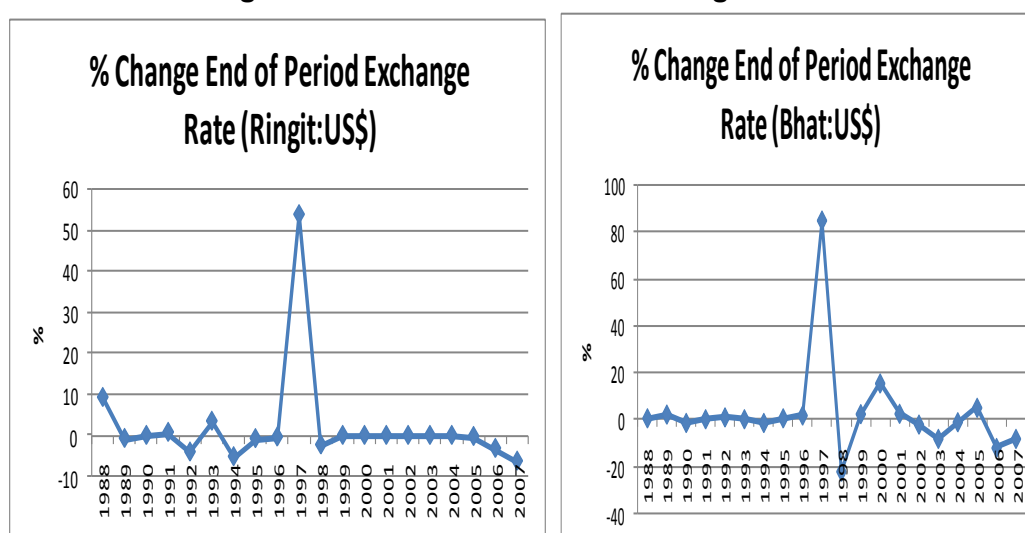
<sup>83</sup> Source: De Mel and Jayaratne, 2009

Whilst inflation rates in South Asia have been between 5 and 10 percent in most years, in ASEAN countries they have been between 0 and 5 percent in most years. Furthermore, if we consider the period in the late 1980s when product fragmentation was taking off in South East Asia, price stability was better in South East Asia than it is in South Asia today.

Since, production fragmentation entails a sliced up value chain, a degree of predictability is required in terms of costs at each step in the value chain. Volatility in prices of different components will influence price levels or margins in the final product which are a deterrent to investment in this type of production.

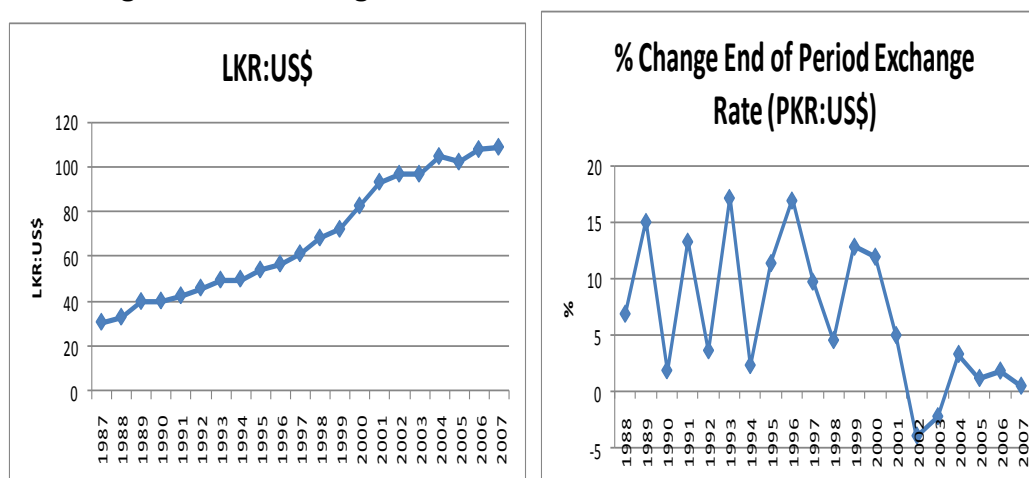
The other key macroeconomic fundamental that is relevant to production fragmentation is the exchange rate. Exchange rate stability is important for production fragmentation since the process involves constant movement of parts and components between borders, and volatility in the exchange rate will affect the price of components and that of the final product—undermining the predictability important for production fragmentation.

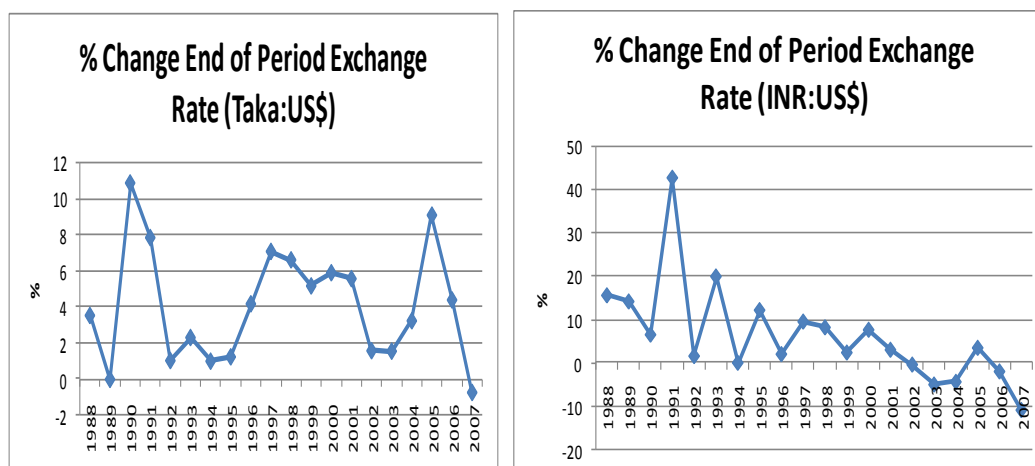
**Figure 5.6. Selected ASEAN Exchange Rates**



Source: IMF World Financial Statistics 2002 and 2008

**Figure 5.7. Exchange Rates in Selected South Asian Countries**





Source: IMF World Financial Statistics 2002 and 2008

Considering Figures V.6 and V.7 it is clear that South Asian countries have experienced far greater currency fluctuations than ASEAN countries. Whilst exchange rate stability is an advantage for production fragmentation, the potential costs of it, as demonstrated in the 1997 Asian Financial Crisis, are sufficient cause for developing countries to be cautious when considering such an approach. This is particularly the case when countries in question tend to face high levels of inflation which result in erosion of export competitiveness and where weak fiscal management tends to cause balance of payments crises.

*In sum, macroeconomic stability has not been a strong point in key South Asian economies. Both Sri Lanka and Pakistan had to resort to IMF loans in 2008 and 2009. Whilst these were in some ways related to the global economic crisis at the time, they were necessary due to the weaknesses in domestic economic management in both countries.*

### Barriers to Trade: Tariffs

Production fragmentation requires constant movement of parts and components between borders, and therefore barriers to trade, both in terms of costs and in terms of logistical impediments, undermine the feasibility of production fragmentation. South Asia has high tariffs on automobile parts and components, which is a barrier to production fragmentation in the region. We looked at barriers to trade in a few other sectors and compared these with barriers to trade in ASEAN countries. The results are presented below and all figures refer to percentage applied tariff.

**Table 5.4. Applied Tariffs on Parts and Components in Selected South Asian and ASEAN countries 2009**

#### **HS 850300 – Parts of Motors and Generators**

<b>HS 850300</b>	<b>MFN</b>	<b>Sri Lanka</b>	<b>India</b>	<b>Pakistan</b>	<b>Bangladesh</b>	<b>Nepal</b>
Sri Lanka <sup>84</sup>	2.5	-	0	1	0.75	0.75
India	7.5	0	-	6.5	0	0
Pakistan	5-15	1.65-4.95	5-15	-	5-15	5-15
Bangladesh	5	5	5	5	5	5
Nepal	5	5	5	5	5	5

<sup>84</sup> (Except HS85030010 which relates to fan motors in vehicles and is taxed at 28% MFN, 11.2% for PSFTA, 0% for ISFTA and 8.4% SAFTA LDC).



<b>HS 850300</b>	MFN	Thailand	Malaysia	Philippines	Singapore
Thailand	1 <sup>85</sup>	-	1	1	1
Malaysia	5	0	-	0	0
Philippines	1	0	0	-	0
Singapore	0	0	0	0	-

#### **HS 854290 – Integrated Circuit Parts**

<b>HS 854290</b>	MFN	Sri Lanka	India	Pakistan	Bangladesh	Nepal
Sri Lanka	2.5	-	0	1	0.75	0.75
India	0	0	-	0	0	0
Pakistan	5	1.65	5	-	5	5
Bangladesh	12	12	12	12	-	12
Nepal	0	0	0	0	0	-

<b>HS 854290</b>	MFN	Thailand	Malaysia	Philippines	Singapore
Thailand	0	-	0	0	0
Malaysia	0	0	-	0	0
Philippines	0	0	0	-	0
Singapore	0	0	0	0	-

#### **HS 841590 – Parts of air conditioning machines**

<b>HS 841590</b>	MFN	Sri Lanka	India	Pakistan	Bangladesh	Nepal
Sri Lanka	15	-	0	6	4.5	4.5
India	10	0	-	5	5	0
Pakistan	15	15	15	-	15	15
Bangladesh	25	25	25	25	-	25
Nepal	30	30	30	30	30	-

<b>HS 841590</b>	MFN	Thailand	Malaysia	Philippines	Singapore
Thailand	10	-	10	10	10
Malaysia	30	0	-	0	0
Philippines	10	5	5	-	5
Singapore	0	0	0	0	-

#### **HS 852990 Parts of Transmission Apparatus, Radar Apparatus or Television Receivers (other than aerials)**

<b>HS 852990</b>	MFN	Sri Lanka	India	Pakistan	Bangladesh	Nepal
Sri Lanka	15	-	0	6	4.5	4.5
India	0 <sup>86</sup>	0	-	0	0	0
Pakistan	20 <sup>87</sup>	20	20	-	12 <sup>88</sup>	12 <sup>89</sup>
Bangladesh	12	12	12	12	-	12
Nepal	0	0	0	0	0	-

<b>HS 852990</b>	MFN	Thailand	Malaysia	Philippines	Singapore
Thailand	1 <sup>90</sup>	-	1	1	1
Malaysia	0 <sup>91</sup>	0	-	0	0
Philippines	1	0	0	-	0
Singapore	0	0	0	0	-

<sup>85</sup> Except HS 850300A MFN 10%

<sup>86</sup> except for HS85299010C and HS85299020C 7.5%

<sup>87</sup> except TV tuners (HS 85299020 MFN 5%, SL 1.65%)

<sup>88</sup> except converter box 5%

<sup>89</sup> Ibid.

<sup>90</sup> Except HS 8529902 MFN 10%

<sup>91</sup> Except HS 85200935A MFN 5%

**HS 854890 (Electric Parts of machinery NES)**

<b>HS 854890</b>	<b>MFN</b>	<b>Sri Lanka</b>	<b>India</b>	<b>Pakistan</b>	<b>Bangladesh</b>	<b>Nepal</b>
Sri Lanka	15	-	0	6	4.5	4.5
India	10	0	-	9	0	0
Pakistan	25	5	5	-	5	5
Bangladesh	25	23.75	23.75	23.75	-	23.75
Nepal	15	12.5	12.5	12.5	12.5	-

<b>HS 854890</b>	<b>MFN</b>	<b>Thailand</b>	<b>Malaysia</b>	<b>Philippines</b>	<b>Singapore</b>
Thailand	10 <sup>92</sup>	-	10	10	10
Malaysia	0	0	-	0	0
Philippines	5	5	5	-	5
Singapore	0	0	0	0	-

Source: De and Jayaratne(2009). Note: All calculations based on MACMAP data ([www.macmap.org](http://www.macmap.org))

*The data above clearly shows that South Asian countries have far higher tariffs on parts and components of the selected products than the ASEAN countries, although it is encouraging to note that SAFTA tariff reductions have had an impact on applied tariffs in some of these products. High tariffs on parts and components are likely to be an impediment to production fragmentation.*

**Trade Transaction Costs**

As important as costs such as tariffs and para tariffs are the physical, logistical and bureaucratic barriers to trade. South Asia has poor external supply chains. Although, trade facilitation has improved over time with major improvements having been made in some countries in South Asia, the others are lagging behind<sup>93</sup>. Table V.5 illustrates a few selected indicators of trade facilitation in South Asia and ASEAN. It is evident that South Asia requires greater improvement in trade facilitation although measures and expected outcomes, may not be achievable by the unilateral efforts of countries alone.

**TABLE 5.5. SELECTED INDICATORS OF TRADE FACILITATION IN SOUTH ASIA AND ASEAN**

	<i>Mean</i>	<i>Bangladesh</i>	<i>India</i>	<i>Nepal</i>	<i>Pakistan</i>	<i>Sri Lanka</i>	<i>Cambodia</i>	<i>Indonesia</i>	<i>Malaysia</i>	<i>Philippines</i>	<i>Singapore</i>	<i>Thailand</i>	<i>Vietnam</i>
Hidden barriers to trade (1)*	4.5	3.8	4.7	na	3.8	4.9	na	4.1	4.5	3.2	6.3	4.0	3.1
Burden of customs procedure (2)	3.9	2.4	3.7	2.8	3.5	3.7	2.8	3.3	4.8	2.9	6.5	4.1	3.3
Overall infrastructure quality (3)	3.8	2.2	2.9	1.9	3.1	3.8	3.1	2.8	5.6	2.9	6.7	4.8	2.7
Transparency of Government policymaking (4)	4.2	3.5	4.2	3.2	3.4	3.8	4.0	3.2	5.0	3.8	6.3	4.2	4.2
<b>Global Competitiveness Index (rank)</b>		<b>111</b>	<b>50</b>	<b>126</b>	<b>101</b>	<b>77</b>	<b>109</b>	<b>55</b>	<b>21</b>	<b>71</b>	<b>5</b>	<b>34</b>	<b>70</b>

Source: Michael E. Porter, Klaus Schwab, eds., *The Global Competitiveness Report 2008-2009*, (Geneva, World Economic Forum, 2009).

Notes: \* Data is based on *The Global Competitiveness Report 2004-2005*.

<sup>92</sup> Except HS 854890B MFN 1%

<sup>93</sup> World Bank (2008), —Trade and Transport Facilitation in South Asia: Systems in Transition—

- (1) 1= important problem, 7= not an important problem  
 (2) 1= extremely slow and cumbersome, 7= rapid and efficient  
 (3) 1= underdeveloped, 7= as extensive and efficient as the world's best  
 (4) 1= never informed, 7=always informed

South Asia also performs poorly on the “trading across borders” measures of the World Bank’s “Doing Business” report which assesses the costs, procedures and time taken to trade (see table V.6 and Figure V.8). Fewer documents are needed to trade in Singapore, Thailand and Indonesia compared to that of South Asia. This can be largely attributed to the automated trading systems in place in these countries. While all governments in South Asia have started customs reform/streamlining including computerized customs clearance, these have been implemented only partially. This is also reflected in the time taken to export and import with the average time taken to trade with South Asia exceeding by over 9 days with ASEAN countries. One approach adopted in ASEAN was the lower bureaucratic requirements in the FTZs for the export and import of products, which resulted in a more streamlined approach to production.

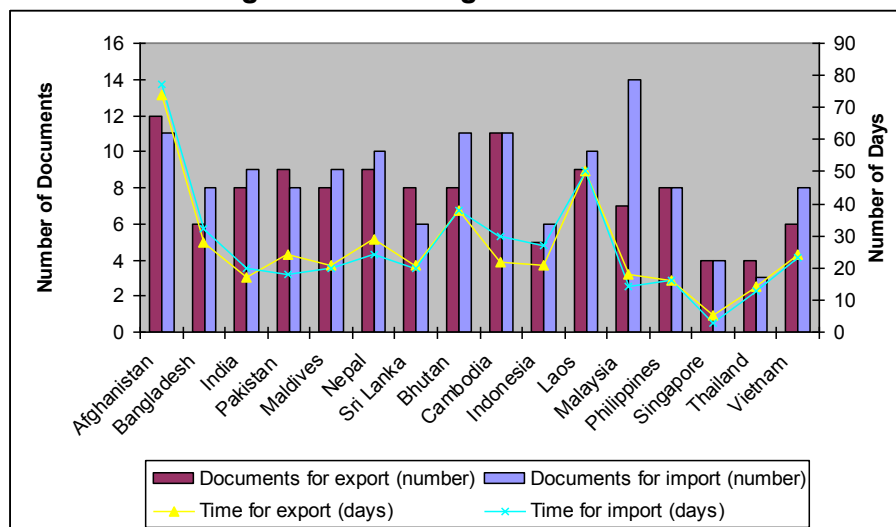
**TABLE 5.6. AVERAGE NUMBER OF DOCUMENTS NEEDED AND TIME TAKEN TO TRADE IN SOUTH ASIA AND ASEAN**

	Documents to export (number)	Documents to import (number)	Time to export (days)	Time to import (days)
South Asia	8.5	9.0	31.5	31.1
ASEAN	6.7	7.8	22.0	21.7

Note: while the calculations for South Asia includes all 8 SAARC countries, ASEAN includes Brunei, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand and Vietnam

Source: World Bank, —Doing Business 2009”

**Figure 5.8. Trading Across Borders**



Source: World Bank, —Doing Business 2009”

The importance of efficient trading across borders is paramount in terms of production fragmentation. Delay in the transfer of a single unit in the supply chain can disrupt the entire production structure and affect the viability of the system. It is clear that South Asia lags behind in this regard and trade facilitation measures become important at a regional level, not just for intra-regional trade but also for overall trade. According to the World Bank (2008), intra-regional trade within South Asia would rise by almost 60 per cent and trade with the rest of the world by more than 30 per cent if projected levels of trade facilitation efficiency were attained (Table V.7).

**Table 5.7. Trade Gains from Improved Trade Facilitation (US\$ millions)<sup>94</sup>**

	<b>Port Efficiency</b>	<b>Customs Environment</b>	<b>Regulatory Environment</b>	<b>Service Sector Infrastructure</b>	<b>Total Gains</b>
Intra-regional	712	429	278	1,224	2,644
Inter-regional	8,421	3,881	3,809	15,452	27,560

Source: World Bank (2008), —Trade and Transport Facilitation in South Asia: Systems in Transition”

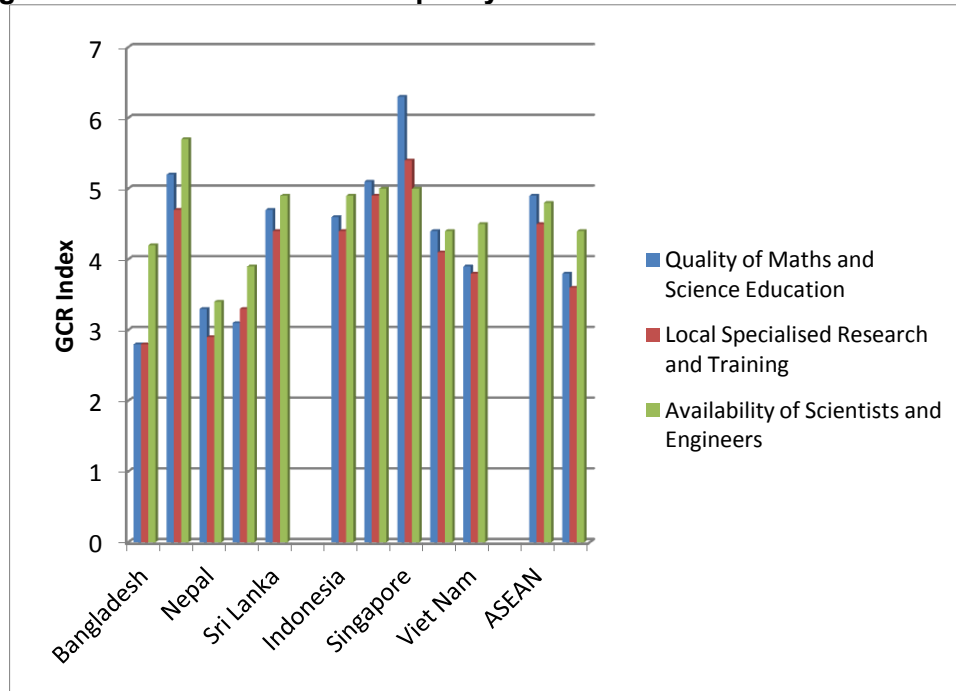
Although in the South Asia Free Trade Agreement (SAFTA) the countries consider enhancing trade facilitation in South Asia in the form of harmonization of standards, simplification and harmonization of procedures and transit facilities, none of these are binding. In this context it is essential that the approach to trade facilitation in SAFTA is reviewed and measures are taken to prioritise the requirements for trade facilitation in the region (possibly through an extensive bottom up stakeholder survey and value chain analyses) and then implement these in a binding manner in SAFTA.

### Human Resource Capacity

Another important feature of ASEAN economies in being successful in production fragmentation was the emphasis on education and human resource development. The nature of production fragmentation is such that it is most viable in relatively high technology production such as consumer electronics and automobiles. Therefore countries engaged in slicing up the value chain need to have the required human resource skills to work in such sectors. Countries such as Singapore and Malaysia placed emphasis on education, particularly in science and technology and mathematics. A comparison between technological capability amongst human resources in South Asia and ASEAN demonstrates that ASEAN countries are ahead of South Asia.

However it is also clear from Figure V.9 that India is on par with or in fact ahead of most ASEAN nations (other than Singapore) in terms of access to high quality human capital. This suggests that India will need to be the location of more sophisticated production or R&D whilst neighbouring countries could contribute in less sophisticated segments of the value chain. However, given the technologies in question, there will need to be a critical mass of skilled workers in each country to make production fragmentation viable. Given the human resources situation in South Asia, it is doubtful if all countries in the region can effectively participate in such a production framework.

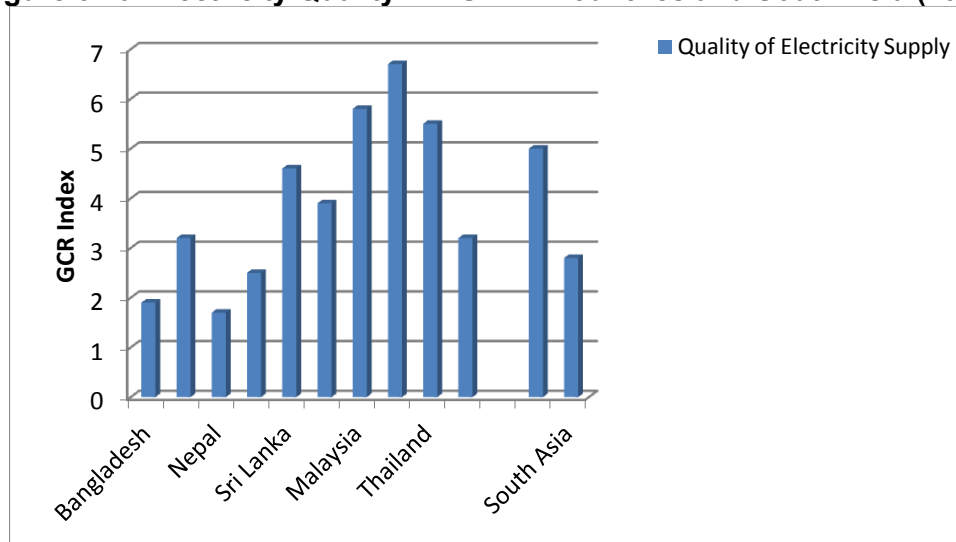
<sup>94</sup> Trade Facilitation and Regional Integration in South Asia: Accelerating the Gains to Trade with Capacity Building, Wilson and Otsuki, World Bank, 2004.

**Figure 5.9: Human Resource Capacity in ASEAN countries and South Asia**

Source: Data from Global Competitiveness Report 2009

#### Infrastructure Quality:

Whilst the infrastructure requirements for trading across borders have been discussed, the costs and reliability of infrastructure within individual countries is also important in terms of production fragmentation. Costly internal transport networks and weaknesses in telecommunications and energy infrastructure undermines the predictability of production and can disrupt supply linkages along the value chain. Accordingly, production fragmentation requires reliable networks of energy, telecommunications and transport. In terms of the quality of electricity supply, South Asia substantially lags behind ASEAN countries as seen in Figure V.B.8 below.

**Figure 5.10. Electricity Quality in ASEAN Countries and South Asia (2008)**

Source: Global Competitiveness Report Data (2008)

### Transport

Transport bottlenecks both within and between countries is a major problem in South Asia affecting trade and trade competitiveness due to increased delivery costs, transit times, and the reliability and predictability of delivery. For cost effective production fragmentation it is essential that transaction costs are minimized and given the interdependence of different components, there are no delays and disruptions across the entire value chain. Therefore, developments in intra-regional transport networks (highways, air transport, ports and shipping services) would have to be a priority.

**Table 5.8. Transport Indicators in South Asia and ASEAN Countries**

	<i>Mean</i>	<i>Bangladesh</i>	<i>India</i>	<i>Nepal</i>	<i>Pakistan</i>	<i>Sri Lanka</i>	<i>Cambodia</i>	<i>Indonesia</i>	<i>Malaysia</i>	<i>Philippines</i>	<i>Singapore</i>	<i>Thailand</i>	<i>Vietnam</i>
Road quality (1)	3.8	2.8	2.9	1.9	3.5	3.6	3.1	2.5	5.7	2.8	6.6	5.0	2.6
Railroad infrastructure quality (2)	3.0	2.3	4.4	1.3	3.0	3.2	1.6	2.8	5.0	1.8	5.6	3.1	2.4
Port infrastructure quality (3)	4.1	2.6	3.3	2.9	3.7	4.5	3.4	3.0	5.7	3.2	6.8	4.4	2.8
Air transport infrastructure quality (4)	4.7	3.4	4.7	3.5	4.2	4.8	4.2	4.4	6.0	4.1	6.9	5.8	3.9

(1) 1= underdeveloped, 7= extensive and efficient by international standards

(2) 1= underdeveloped, 7=as extensive and efficient as the world's best

(3) 1= underdeveloped, 7= as developed as the world's best

(4) 1= infrequent, limited, and efficient, 7=as frequent, extensive, and efficient as the world's best

Source: Data from Michael E. Porter, Klaus Schwab, eds., *The Global Competitiveness Report 2008-2009*, (Geneva, World Economic Forum, 2009).

Trucking has become the dominant mode of freight in South Asia. In terms of costs for bulk cargo road freight rates in India and Pakistan are probably the lowest in the world<sup>95</sup>. However, service quality is poor with long and unpredictable transit times. In terms of road quality all South Asian countries fall below the world average. As most intra-regional trade is trucked, it is essential to improve road quality for expanding intra-regional trade.

South Asia relies heavily on shipping to trade with the rest of the world. Whilst production fragmentation relies on efficient movement of goods between intra-regional borders, the final product is usually exported outside the region, therefore logistical connectivity to the rest of the world is important as well. The annual composite index, compiled by UNCTAD of liner shipping connectivity, for some South Asian and ASEAN countries is given in Table V.B.10. It is based on five components: (1) number of ships; (2) the container carrying capacity in twenty-foot equivalent units (TEUs) of those ships; (3) the number of companies; (4) the number of services; and (5) the maximum ship size, always referring to the ships that are deployed to provide liner shipping services to a country's port(s). Although far below Singapore and Malaysia, Sri Lanka and India are within the top 20 best performing countries.

<sup>95</sup> World Bank (2008).

**Table 5.9. Liner Shipping Connectivity Index (LSCI), 2008**  
(Maximum score in 2008=137.38)

Country	2008	
	LSCI	Rank (from 163 countries)
Singapore	94.47	3
Malaysia	77.6	9
Sri Lanka	46.08	19
India	42.18	20
Thailand	36.48	22
Philippines	30.26	31
Pakistan	24.61	41

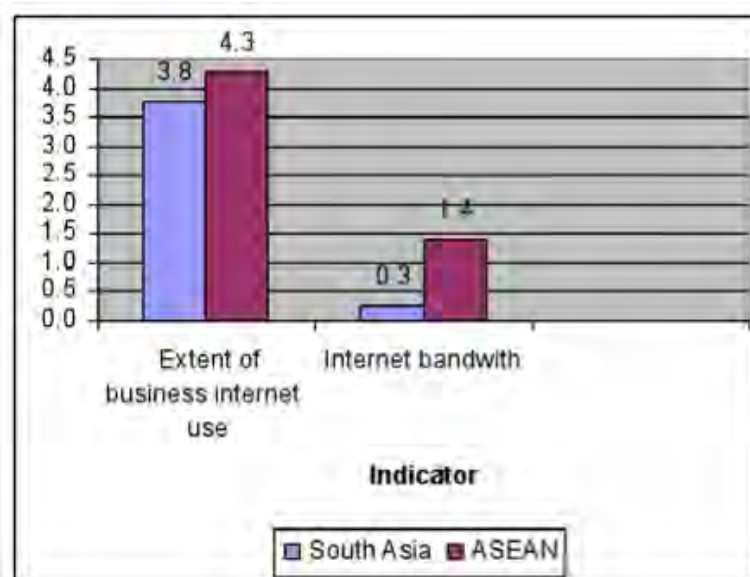
Source: Data from UNCTAD Transport Newsletter, No. 40, Third Quarter, 2008.

In terms of rail transport, railways in Sri Lanka, Bangladesh and Pakistan carry very little freight and focus largely on passenger transport. The exception may be India whose freight traffic has grown over the years. And little investment has been made to develop the freight businesses (of railway) in many South Asian countries. Air freight is used in South Asia mostly when sea transport is not an option depending on the type of good and time factor. Currently annual international air freight amounts to about 1.2 million tons. The air freight market is competitive with the rates reflecting the demand and supply conditions<sup>96</sup>.

#### Communication costs and facilities

Given the extent of coordination required in the process, communications infrastructure is also important for production fragmentation to be successful. Figure V.B.9 provides an overview of the internet facilities available and the extent to which internet is used in South Asia and ASEAN. It is clear that internet quality is far higher in ASEAN and penetration of the internet in commercial activity is superior compared to South Asia. Mobile phone penetration is also far higher in ASEAN (62.02 per 100 population) than in South Asia (27.06 per 100 population).

**Figure 5.11. Internet Facilities in South Asia and ASEAN**



Note: (1)Extent of business internet use (1 = companies in the region do not use the internet extensively for buying and selling goods and for interacting with customers and suppliers; 7=uses extensively)(2) Internet bandwidth hard data: (mB/s) per 10,000 populationSource: Using data from the World Economic Forum, —file Global Information Technology Report 2008-2009”.

<sup>96</sup> World Bank (2008).

## Appendix 6: Investment in Cross Border Infrastructure

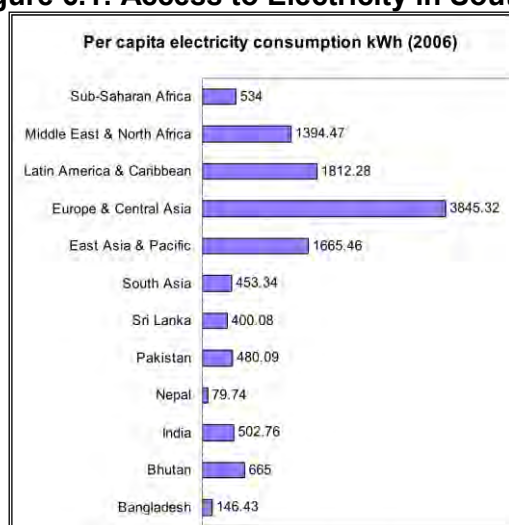
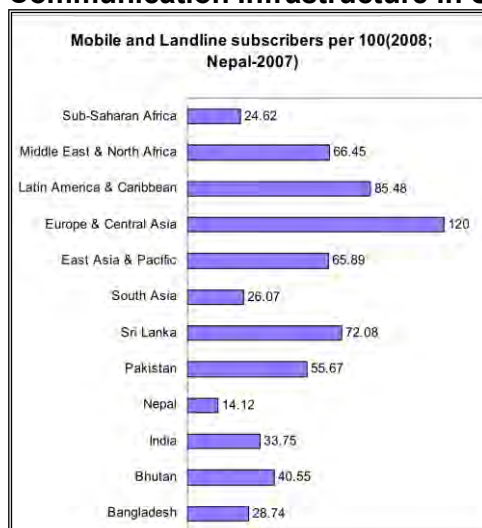
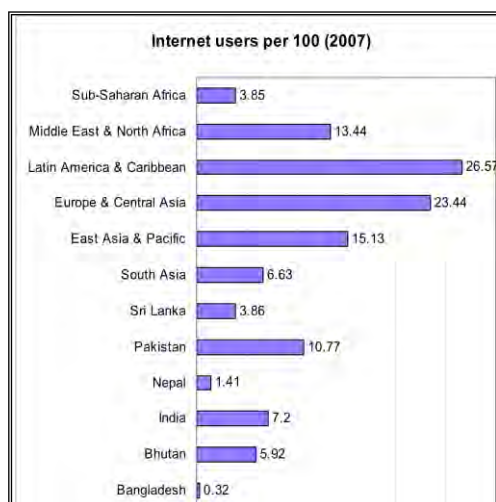
**Table 6.1: Physical Infrastructure Development Indicators in South Asia**

Indicators	Country	1991	2001	2005	Growth 1991-2005	Rate (%)* 2001-2005
Road density (km. per sq. km. of surface area)	Afghanistan	0.032	0.032	0.053	5.469	16.144
	Bangladesh	0.098	0.144	0.150	4.422	0.963
	Bhutan	0.051	0.072	0.171	19.608	34.522
	India	0.715	1.018	1.109	4.592	2.233
	Maldives					
	Nepal	0.047	0.090	0.118	12.589	7.835
	Pakistan	0.223	0.324	0.325	3.812	0.102
	Sri Lanka	1.476	1.512	1.483	0.040	-0.479
Railway density (km.per 1000 sq. km. of surface area)	Afghanistan					
	Bangladesh	19.067	19.063	19.826	0.332	1.001
	Bhutan					
	India	19.000	19.092	19.264	0.116	0.226
	Maldives					
	Nepal			0.401		
	Pakistan	11.022	9.786	9.786	-0.934	0.000
	Sri Lanka	22.283	22.085	22.085	-0.074	0.000
Air passengers (per 1000 population)	Afghanistan	14.275				
	Bangladesh	9.589	11.030	11.525	1.682	1.123
	Bhutan	13.324	57.668	77.111	39.895	8.429
	India	12.368	16.332	25.149	8.612	13.496
	Maldives	42.222	188.697	248.923	40.796	7.979
	Nepal	32.351	25.671	17.701	-3.774	-7.762
	Pakistan	46.932	42.502	34.436	-2.219	-4.744
	Sri Lanka	51.700	91.732	143.578	14.809	14.130
Maritime cargo (million tonnes per seaport)	Afghanistan					
	Bangladesh	1.900	3.835	4.120	9.737	1.858
	Bhutan					
	India	14.158	29.469	48.905	20.452	16.488
	Maldives					
	Nepal					
	Pakistan	11.290	13.345	26.445	11.186	24.541
	Sri Lanka	6.254	8.247	13.143	9.179	14.842
Fixed line and mobile phone subscribers (per 1,000 people)	Afghanistan	2.378	1.222	43.532	144.218	865.706
	Bangladesh	2.081	5.975	71.004	276.001	272.076
	Bhutan	4.164	23.418	110.818	213.445	93.304
	India	6.705	35.449	127.674	150.347	65.041
	Maldives	34.276	110.507	564.065	128.805	102.609
	Nepal	3.312	11.343	25.706	56.346	31.656
	Pakistan	10.155	24.333	115.866	86.748	94.040
	Sri Lanka	7.402	61.863	234.684	255.879	69.840
Electric power consumption (kWh per capita)	Afghanistan					
	Bangladesh	50.012	103.587	139.554	14.920	8.680
	Bhutan					
	India	295.023	402.019	457.325	4.584	3.439
	Maldives					
	Nepal	36.847	57.633	68.820	7.231	4.853
	Pakistan	297.264	373.544	425.026	3.582	3.445
	Sri Lanka	160.132	276.667	344.158	9.577	6.099

**Note:** \*Average annual growth rate.

**Source:** De (2009) calculations based on WDI CD-ROM 2008, World Bank.



**Figure 6.1: Access to Electricity in South Asia****Figure 6.2 Communication Infrastructure in South Asia****Figure 6.3: Internet Access in South Asia**

Source: World Development Indicators 2008

**Table 6.2: Potential for Intra-regional Trade:  
Energy Resource Endowments of South Asian Countries**

Country	Oil Reserves (Mt)	Oil Production (Mt/y)	Gas Reserves (bcm)	Gas Production (bcm/y)	Coal Reserves (Gt)	Coal Production (Mt/y)	Hydropower Potential (MW)	Hydropower Developed (MW)
Afghanistan	10-15/ 100	0.025	28.3/142	0.114	0.1	0.044	745	262
Bangladesh	7.8	0.340	580/810	13.8	2.2	n/a	755	230
Bhutan	0	0	0	0	0	0	23,760/ 30,000	468
India	786 (2005)	33.000	948	32.680	25/285	409.000	84,000/ 150,000	32,300
Nepal	0	0	0	0	modest	0	43,000/ 83,000	600
Pakistan	105	3.100	1,300/570 0	28.000	185	3.300	54,000	6,500
Sri Lanka	14-18	0	0	0	0	0	9,100	1,250

Notes: (1) Under Oil and Gas reserves, proven / probable reserves are shown where available. Under hydro, economically viable potentials / technical potential are shown. (2) Production data relate to the most recent year data available during 2003 to 2005. (3) With the commissioning of all units of Tala hydropower project, hydro capacity developed in Bhutan will soon be 1,488 MW in 2006. Coal data include lignite.

Source: World Bank documents.

**Table 6.3: Potential for Inter-regional Trade: Energy Resource Endowments of South Asia's Neighbours**

Country	Oil	Natural Gas	Coal	Hydropower
<b>Kazakhstan</b>	Reserves: 29 billion bbl Production: 1.3 million bbl/day	Reserves: 65 to 70 trillion cubic feet (tcf) Production: 0.570 tcf/yr	Reserves: 37.5 billion tons Production: 95 million tons (2004)	Potential: 20,000 MW Developed: 2,000 MW
<b>Turkmenistan</b>	Reserves: 546 million bbl Production: 260,000 bbl/day	Reserves: 71 tcf Production: 2.1 tcf/year	Modest or negligible	Potential: Modest
<b>Uzbekistan</b>	Reserves: 594 million bbl <sup>9</sup> Production: 150,000 bbl/day	Reserves: 66.2 tcf Production: 2.07 tcf/year	Reserves: 4 billion tons Production: 2.8 million tons	Potential: Modest Developed: 1,700 MW
<b>Tajikistan</b>	Modest or negligible endowment	Modest or negligible endowment	Reserves: 3.6 billion tons Production: 32,000 tons (2002)	Potential: 40,000 MW Developed: 4,000 MW
<b>Kyrgyz Republic</b>	Modest or negligible endowment	Modest or negligible endowment	Reserves: 0.8 billion tons Production: 400,000 tons (2003)	Potential: 26,000 MW Developed: 3,000 MW
<b>Iran</b>	Reserves: 132.5 billion bbl Production: 4.2 million bbl/day	Reserves: 971 tcf Production: 3.5 tcf/year	Reserves: 461 million tons Production: 1.1 million tons	Potential: 42,000 MW Developed: 2,000 MW
<b>Myanmar</b>	Reserves: 3.2 billion bbl Production: 7.3 million bbl (During 11 months of 2005 to 2006)	Reserves: 18 tcf Probable: 89.7 tcf Production: 362 bcf (10.53 bcm) Exports: 0.28 tcf (8.06 bcm ) (During 11 months of 2005 to 2006)	Reserves: Modest Production: Modest	Potential: 39,720 MW Developed: 747 MW

Source: World Bank documents and U.S. DOE/EIA Country Briefs.

### Box 6.1: Key Opportunities for Energy Trade and Investment in The Western Energy Market

The main opportunities for energy trade in the Western Energy Market have been identified as:

- *Power imports to Afghanistan:* Afghanistan's power demand is expected to grow to the level of 905 MW by 2020, and agreements in principle have been reached to import 300 MW each from Tajikistan, Uzbekistan, and Turkmenistan. Arrangements for the reinforcement of transmission links with Tajikistan and Turkmenistan are in place, and the link to Uzbekistan is being reviewed and is likely to be pursued in the context of projects to decongest the Uzbek grid. Imports from Iran of 60 MW to 100 MW to serve the Herat and Nimroz provinces would continue. Adequate transmission links for this have already been constructed. Funding is in place and construction is in progress for the North East Power System in Afghanistan to transmit the imported power to various load centers.

- *Power import from Iran to the Gwadar port area* in Pakistan will increase from about 25 MW now to about 100 MW when the proposed 220 kV link is completed.

- *Hydropower import from Central Asia to Afghanistan and Pakistan:* This prominent multilateral trade project is being currently discussed and formulated with the help of multilateral and bilateral development partners. It relates to the export of 1,000 MW of power from Tajikistan and Kyrgyz Republic to Pakistan and Afghanistan. A World Bank study (2004) showed that the completion of the partially constructed Central Asian hydropower projects (including new transmission links) would enable Tajikistan and Kyrgyzstan to supply power to Afghanistan and Pakistan at a delivered cost lower than the marginal cost of generation in Pakistan. Pakistan's current power demand at the generation level of about 14,000 MW is expected to reach 44,700 MW by FY 2020. Among the several options to meet such growing demand import of power from Central Asia has a prominent place. About 670 MW would come from the Sangtuda I hydropower project under construction by a joint venture between RAO UES of Russia and the Tajik government. Surplus power from the existing generating stations of Tajikistan and Kyrgyz republic would supply the remaining 330 MW. A memorandum of understanding (MOU) among the four governments has been signed, and a council of ministers and a multicountry working group have been set up to coordinate further efforts. Studies for the dedicated transmission line, and other technical, legal, commercial, and risk-mitigation studies are ongoing under technical assistance provided by the World Bank and the Asian Development Bank. Private participation in the transmission component is also envisaged. Should this initial project prove cost-effective and reliable, Pakistan is expected to increase its import from Central Asia to about 4,000 MW in the second stage.

- *Natural gas import by India and Pakistan from Iran (IPI Gas project):* This project, which is in an advanced state of negotiation, is for importing annually (for 30 years) 33 bcm of gas by India and 21.7 bcm of gas by Pakistan from Iran in two phases. In the first phase, one pipeline with a diameter of 56 inches would be built to transport 21.7 bcm of gas. In the second phase, the pipeline capacity would be doubled to transport the remaining gas. Iran would build the pipeline up to the Pakistan border, and Pakistan would build it further up to the Indian border. Pakistan would buy the entire gas at the Iran–Pakistan border and transport it across its territory and sell to India the latter's share of gas at a price which would include Pakistan's transmission charges and transit fees. The total distance involved is about 2,670 km. Total pipeline costs are believed to be about \$7 billion. Many private investors appear to be interested in participating in the project. Completion of the first phase is expected by 2013.

- *Natural gas import by Pakistan from Turkmenistan via Afghanistan (TAP Gas project)*: This project involves the construction of a 1,680 km long 56-inch-diameter pipeline at a cost of about \$5.3 billion to supply about 30 bcm of gas per year from Turkmenistan to Pakistan via Afghanistan. India has also been invited to join this venture, and it has attended the steering committee meetings as an observer. Further progress would depend on the robustness of the gas reserves data, certification of the reserves, extent of possible private interest, ability and willingness of Turkmenistan to fulfill its commitments to Gazprom of Russia and still supply Pakistan and India, and finally on the gas pricing.

### **Box 6.2: Key Opportunities for Energy Trade and Investment in The Eastern Energy Market**

The main opportunities for trade in the Eastern Energy Market have been identified as:

- *Hydropower exports from Bhutan*: Bhutan's unexploited hydropower potential exceeds 23,000 MW, and there is a wide shelf of projects from which to choose. Bhutan's power system master plan envisages the construction of six new hydropower projects with a total capacity of 4,484 MW by 2024. The government has also signed an umbrella agreement with the government of India for the preparation of projects and feasibility studies for several hydropower projects and many of the studies are ongoing. Major increase in Bhutan's power exports to India in the medium to long term could materialize, mostly in the context of the continuation of the current financing arrangement under which the Indian government provides a grant to cover 60 percent of the capital cost and soft loans for the remaining 40 percent. Modest increases through medium-sized projects could come through investments by private investors.

- *Hydropower exports from Nepal*: Construction of two 220 kV links between India and Nepal would help increase the modest level of power exchange between the two countries and would also enable many of the privately owned IPPs in Nepal to export their surplus power to India. Nepal's unexploited hydropower potential exceeds 43,000 MW, and it has a large shelf of proposals for run-of-the river and storage projects of large and medium sizes, which have been studied over the last several decades.

- *Grid interconnections*: Interconnection of the grids of India, Nepal, Bhutan, and Bangladesh through the junction of their borders has been shown by studies to be beneficial for all four parties to improve the reliability of their systems. Similar benefits are expected from the proposed interconnection between the Indian and Sri Lankan grid across the sea, for which preliminary intergovernmental agreement has recently been reached.

- *Export of hydropower from Myanmar*: Myanmar has unexploited hydro potential of about 39,000 MW and is developing about 10,400 MW of new capacity through joint ventures with Thai and Chinese businessmen and utilities mainly for export of power to Thailand. Indian and Myanmar governments have a history of cooperation in designing and building hydropower projects in Myanmar and are again collaborating in the design and formulation of Tamanti multipurpose project located near the Indian border, initially with a power component of 1,200 MW, essentially for export to India. This is likely to be developed as a joint venture between Myanmar and Indian power entities.

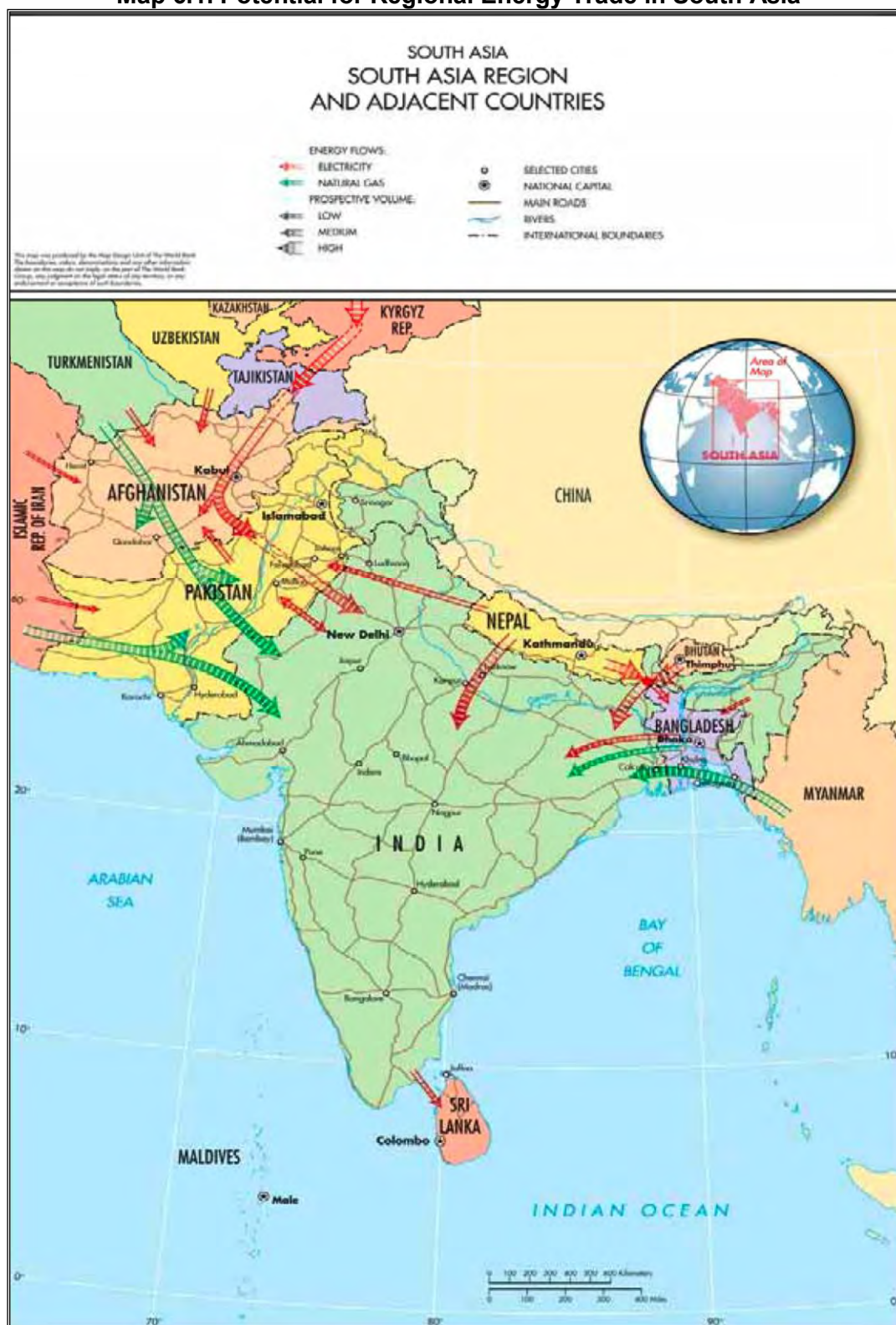
• *Power and gas exports from Bangladesh:* Several proposals have been made by public and private sector entities of India and other countries for establishing large gas-fired combined cycle power projects in Bangladesh mainly for export to India, but perceived uncertainties about the volume of gas reserves in Bangladesh have led its government to hesitate to concur. Recent discoveries and development of coal in Bangladesh and the expected changes in the political condition of the country could perhaps lead to an early concurrence. Most observers believe that Bangladesh has abundant gas reserves, with the potential for significant gas exports to India. However the Bangladesh government is not yet fully convinced about the adequacy of its reserves.

• *Gas exports from Myanmar:* ONGC and GAIL of India have invested in successful gas exploration in two blocks in Myanmar. In order to transport gas from those blocks to India, they have designed alternative gas pipelines from Myanmar off-shore fields to India—one passing through Bangladesh and other bypassing that country. Depending on the outcome of discussions with Bangladesh, one of these pipelines is expected to be selected.

### Box 6.3. Benefits of Electricity Trade at a Glance

Country	Details
Afghanistan	Imported 430.12 GWh of electricity, or 27 percent of total supply in FY 2006. Marginal cost of electricity was 22 cents, while the average import cost was 2 cents. Savings to economy amounted to \$86.02 m (or 1.2 percent of GDP in 2005 of \$7.3 billion).
Bangladesh	<p>Bangladesh sheds loads at around 694 MW in FY 2004. The unserved energy amounted to 3,900 GWh valued at \$171 million on the basis of the system AIC of 4.38 cents/kWh and substantially more when valued at the system marginal costs.</p> <p>Bangladesh marginal price during the peak period is estimated at Tk2.03/KWh (2.8 cents) in the east zone and Tk 11.642(16 cents) in the west zone. By linking west zone with the eastern regional grid of India, which has an energy surplus, Bangladesh can hope to lower the marginal cost in the west zone substantially. Conversely, gas supply to the west zone could be stepped up across the Jamuna River to set up large plants (1,000 MW) in the west zone partly to meet the demand in the west zone (600 MW) and to lower the marginal cost there (from 16 cents to about 4 to 5 cents, or even lower), and to export power to India (400 MW, or 2,453 GWh at 4.7 cents/kWh) and earn \$115.3 million annually.</p>
Bhutan	Exports in FY 2007 amounted to 5664 GWh at 4.65 cents/kWh. Export receipts at \$263.4 million would be equal to 24 to 25 percent of GDP. Tala capital cost was \$1082 million, or a little over 100 percent of the country's GDP.
India	The energy shortage in FY 2007 was 54,916GWh, valued at the marginal cost of Rs 9.3 or (22 cents), equal to \$12.082 billion (valuation by CERC). If it gets imported electricity at 6 to 7 cents and imported gas-based electricity at 8 to 9 cents, the saving would be on the order of \$7.7 billion. On the basis of recently received bids in the ICB for ultramega projects, the levelized cost of power from the new 3,500 to 3,800 MW power stations using domestic coal from captive coal mines would be 2.85 cents/kWh and the cost of power from a similar-sized power station based on imported coal would be 5.45 cents per kWh. Cost of power from most large hydro projects recently constructed or under construction is around 3.5 to 6 cents/kWh. Gas-based generation using gas at \$7/mmBtu will cost 9.25 cents/kWh. These figures give a flavor of the attractiveness of the Indian market for exporters and the likely volume of benefits to India from trade.
Nepal	<p>West Seti HPP: Capital cost \$1,098 million, exports to India 2970 GWh (90 percent of production) at 4.95 cents/kWh are valued at \$147 million (or 2 percent of GDP).</p> <p>Upper Karnali, Buri Gandaki, and Arun 3 HPPs with a total capacity of 1,302 MW could possibly export 4,562 GWh (at 40 percent PLF) at 6 cents/kWh. Value is \$274 million, or 4 percent GDP. All four projects will yield export earnings of 6 percent of GDP.</p> <p>West Seti HPP cost alone amounts to 15 percent of GDP of the country. This would be a significant investment benefit.</p>
Pakistan	Unserved energy in FY 2007 amounted to 17,704 GWh and may rise to over 27,000 GWh by FY 2010 and to 35,000 GWh by FY 2011 if no capacity is added. When valued at the assumed Pakistan system average incremental cost of about 7cents/kWh, the costs of these shortages are of the order of \$1.9 billion for FY 2010, rising to \$2.5 billion for FY 2011. Power and gas imports could help reduce these shortages significantly. In general, new IPP projects are expected to have a levelized tariff of 5.9 cents to 13.8 cents/kWh, based on the fuel they use. Use of domestic gas results in the lowest levelized tariff and the use of high-speed diesel results in the highest levelized tariffs. The gas price to IPPs in 2007 is \$4.23/mmBtu. As it rises to match import parity prices of around \$6.8 to \$7/mmBtu, the levelized power tariffs would be higher.

Source: ESCAP, World Bank, 2008.

**Map 6.1. Potential for Regional Energy Trade in South Asia**

Source: ESCAP, World Bank, 2008

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**Table 6.4: Selected Regional Road Corridors Identified for Investment**

	<i>Corridor</i>	<i>Countries</i>	<i>Basis of selection</i>
SHC 1	Lahore–New Delhi– Kolkata–Petrapole/ Benapole–Dhaka– Akhaura/Agartala	Pakistan, India, and Bangladesh	Potential to carry major intraregional traffic and Potential to providing shorter route leading to transport cost savings
SHC 2	Kathmandu – Birgunj/ Raxaul–Kolkata/ Haldia	Nepal and India	Access to landlocked Nepal to Indian ports
SHC 3	Thimphu– Phuentsholing– Jaigaon–Kolkata/ Haldia	Bhutan and India	Access to landlocked Bhutan to Indian ports
SHC 4	Kathmandu– Kakarvitta–Phulbari – Banglabandha– Mongla/Chittagong	Nepal, India, and Bangladesh	Access to landlocked Nepal to Bangladeshi ports
SHC 5	Sandrop Jongkhar– Guwahati–Shillong– Sylhet–Dhaka– Kolkata	Bhutan, India, and Bangladesh	Potential to providing shorter route leading to transport cost savings
SHC 6	Agartala–Akhaura– Chittagong	India and Bangladesh	Shorter access to Chittagong port for Indian north-eastern States
SHC 7	Kathmandu–Nepalganj– New Delhi–Lahore– Karachi	Nepal, India, and Pakistan	Potential of the corridor to carry future traffic
SHC 8	Thimphu– Phuentsholing– Jaigaon–Birimari– Mongla/Chittagong	Bhutan, India, and Bangladesh	Access to landlocked Bhutan to Bangladeshi ports
SHC 9	Maldha–Shibganj– Jamuna Bridge (Bangladesh)	India and Bangladesh	Potential to provide direct connectivity to carry future traffic
SHC10	Kathmandu– Bhairahawa– Sunauli–Lucknow	Nepal and India	Potential of the corridor to carry future traffic

**Source** SRMTS 2006, 25, Table 4.



**Table 6.5: Selected Regional Rail Corridors Identified for Investment**

	<i>Corridor</i>	<i>Countries served</i>	<i>Basis for selection</i>
SRC 1	Lahore (Pakistan)–Delhi/ Kolkata (India)–Dhaka (Bangladesh)– Mahishasan–Imphal (India)	Pakistan, India, and Bangladesh	Potential growth of intraregional traffic. Reduced distance and shorter transit time.
SRC 2	Karachi (Pakistan)– Hyderabad–Khokrapar– Munabao–Barmer– Jodhpur (India)	Pakistan and India	Shorter route for intra- regional traffic. Access to Karachi Port and potential third country traffic.
SRC 3	Birgunj (Nepal)– Raxaul–Haldia/ Kolkata (India)	Nepal and India	Access to the landlocked Nepal. Potential corridor for third country and bilateral traffic.
SRC 4	Birgunj (Nepal)–Raxaul– Katihar (India)– Rohanpur–Chittagong (Bangladesh) with links to Jogbani (Nepal) and Agartala (India)	Nepal, India, and Bangladesh	Access to Chittagong Port for Indian and Nepalese traffic. Shorter route for north-eastern states of India through Bangladesh.
SRC 5	Colombo (Sri Lanka)– Chennai (India)	Sri Lanka and India	Restoration of old rail ferry link to provide passenger and goods access from the island Sri Lanka to mainland South Asia.

**Source** SRMTS 2006, 27, Table 6.

**Table 6.6: Selected Regional Inland Waterway Corridors Identified for Investment**

	<i>Corridors</i>	<i>Countries served</i>
SIWC 1	Kolkata–Haldia–Raimongal–Mongla– Kaukhali–Barisal–Hizla–Chandpur– Narayanganj–Aricha–Sirajganj–Bahadurabad– Chilmari–Pandu	India and Bangladesh
SIWC 2	Kolkata–Haldia–Raimongal–Mongla– Kaukhali–Barisal–Hizla–Chandpur– Narayanganj–Bhairabbazar–Ajmiriganj– Markuli–Sherpur–Fenchuganj–Zakiganj– Karimganj	As above

**Source** SRMTS 2006, 29, Table 8.

**Table 6.7: Selected Regional Maritime Gateways Identified for Investment**

<i>SAARC state</i>	<i>Principal ports for SAARC trade</i>	<i>Basis of selection</i>
Pakistan	Karachi	Potential to handle future traffic
	Port Bin Qasim	Potential to handle future traffic
India	J.N.P.T.	Potential to handle intra-SAARC traffic
	Kolkata/Haldia	Ability to provide access for landlocked countries to sea ports
	Cochin	Potential to handle intra-SAARC traffic
	Tuticorin	Potential to handle intra-SAARC traffic
Bangladesh	Chittagong	Ability to provide access for landlocked countries and regions to the sea ports
	Mongla	
Sri Lanka	Colombo	Potential to handle international and intraregional container traffic as a hub port
Maldives	Male	Potential to handle future traffic

**Source** SRMTS 2006, 30, Table 10.

**Table 6.8: Selected Regional Aviation Gateways Identified for Investment**

<i>Airport</i>	<i>Country</i>	<i>Rank/feature for consideration</i>
Dhaka	Bangladesh	Ranked 5
Paro	Bhutan	Ranked 16
Delhi		Ranked 2
Mumbai		Ranked 6
Chennai		Ranked 3
Kolkata		Ranked 10
Thiruvananthapuram		Ranked 9
Begaluru		Ranked 11
Tiruchirapalli		Ranked 15
Kochi		Ranked 12
Hyderabad	India	Ranked 14
Male	Maldives	Ranked 4
Kathmandu	Nepal	Ranked 8
Karachi		Ranked 6
Lahore	Pakistan	Ranked 12
Colombo	Sri Lanka	Ranked 1

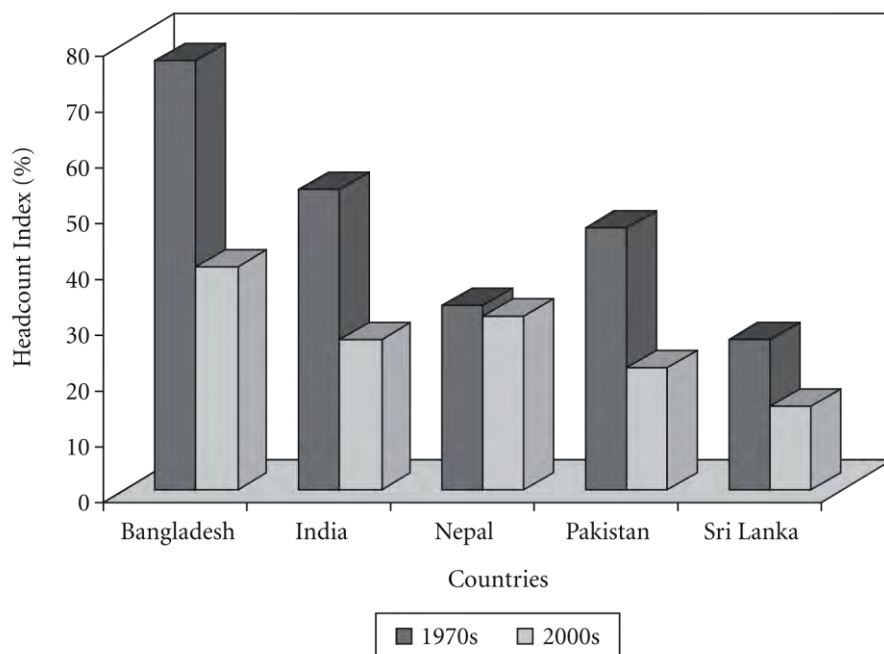
**Source** SRMTS 2006, 30, Table 14.

**Table 6.9: The proposed APIMB Transport Corridor**

Starting Point	Country	Ending Point	Country	Distance (km)	Road condition	Max. Axle Load (ton)
Kabul	Afghanistan	Torkham	Afghanistan	224	Good	31
<i>Afghanistan–Pakistan Border (Torkham Border)</i>						
Torkham	Pakistan	Wahgah	Pakistan	607	Good	31
<i>Pakistan–India Border (Wahgah–Attari Border)</i>						
Attari	India	Petrapole	India	2042	Good	24
<i>India–Bangladesh Border (Petrapole–Benapole Border)</i>						
Benapole	Bangladesh	Dhaka	Bangladesh	168	Good	19
<i>Bangladesh–India (NER) Border (Tamabil–Dawki Border)</i>						
Tamabil	Bangladesh	Dawki	India	325	Good	19
<i>India–Myanmar Border (Moreh–Tamu Border)</i>						
Moreh	India	Tamu	Myanmar	606	Good	24
Tamu	Myanmar	Yangon	Myanmar	1300	Partly good	21
<p><b>Note:</b> Total distance (Kabul to Yangon): 5272 km; No of border crossings (Kabul to Yangon): 5; Transportation time (Kabul to Yangon): 12 days.</p> <p><b>Source:</b> RIS Study, based on information available from UNESCAP, Bangkok</p>						

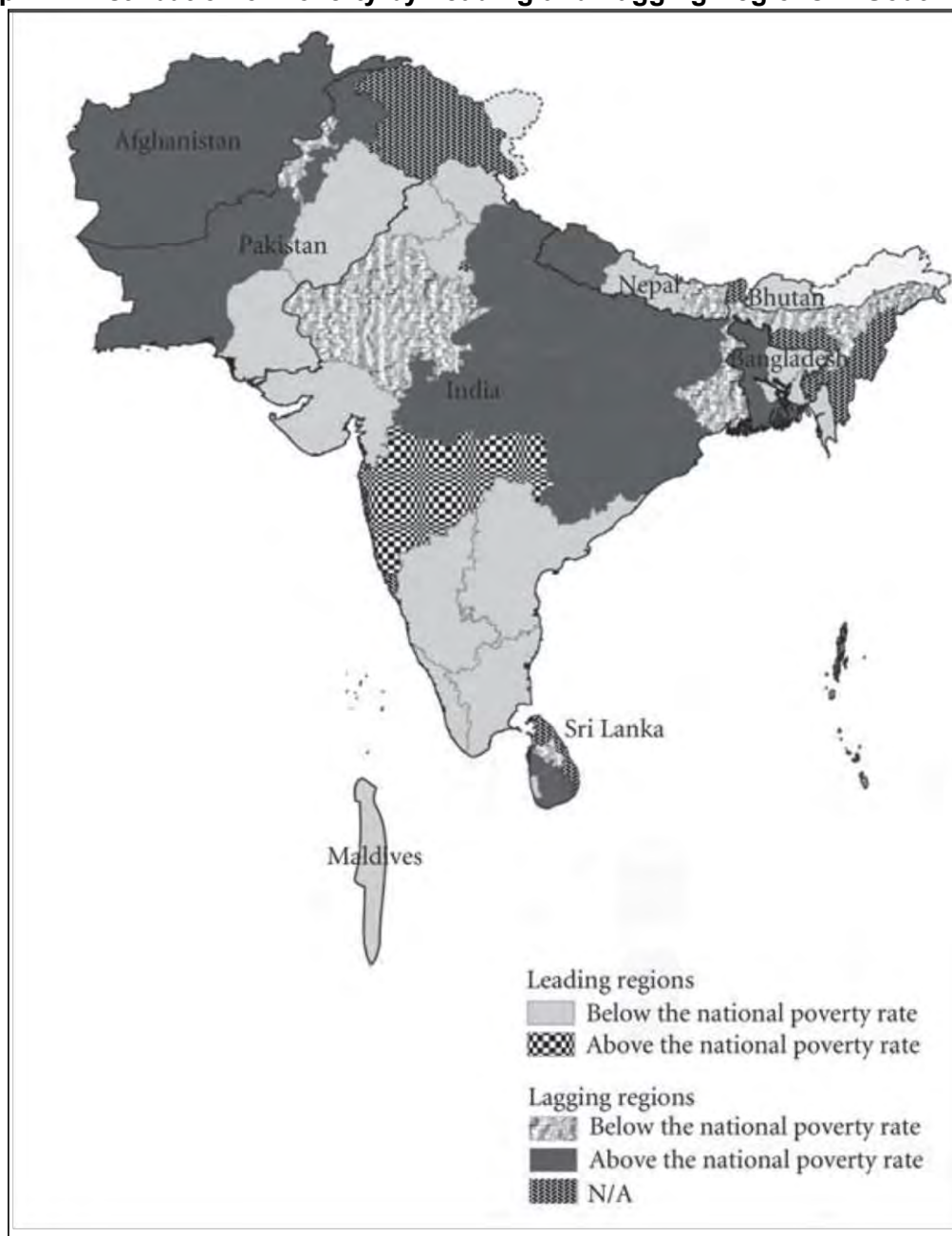
**Appendix 7:**  
**Regional Cooperation to Promote Inclusive Growth In South Asia**

**Figure 7.1: Poverty Reduction in South Asia, 1970s–2000s**



Source: Ahmed and Ghani (2008) using World Bank regional database.

Note: Poverty estimates use national poverty lines. The respective dates are as follows: Bangladesh (1975 and 2005); India (1974 and 2005); Nepal (1977 and 2004); Pakistan (1970 and 2005); and Sri Lanka (1976 and 2005).

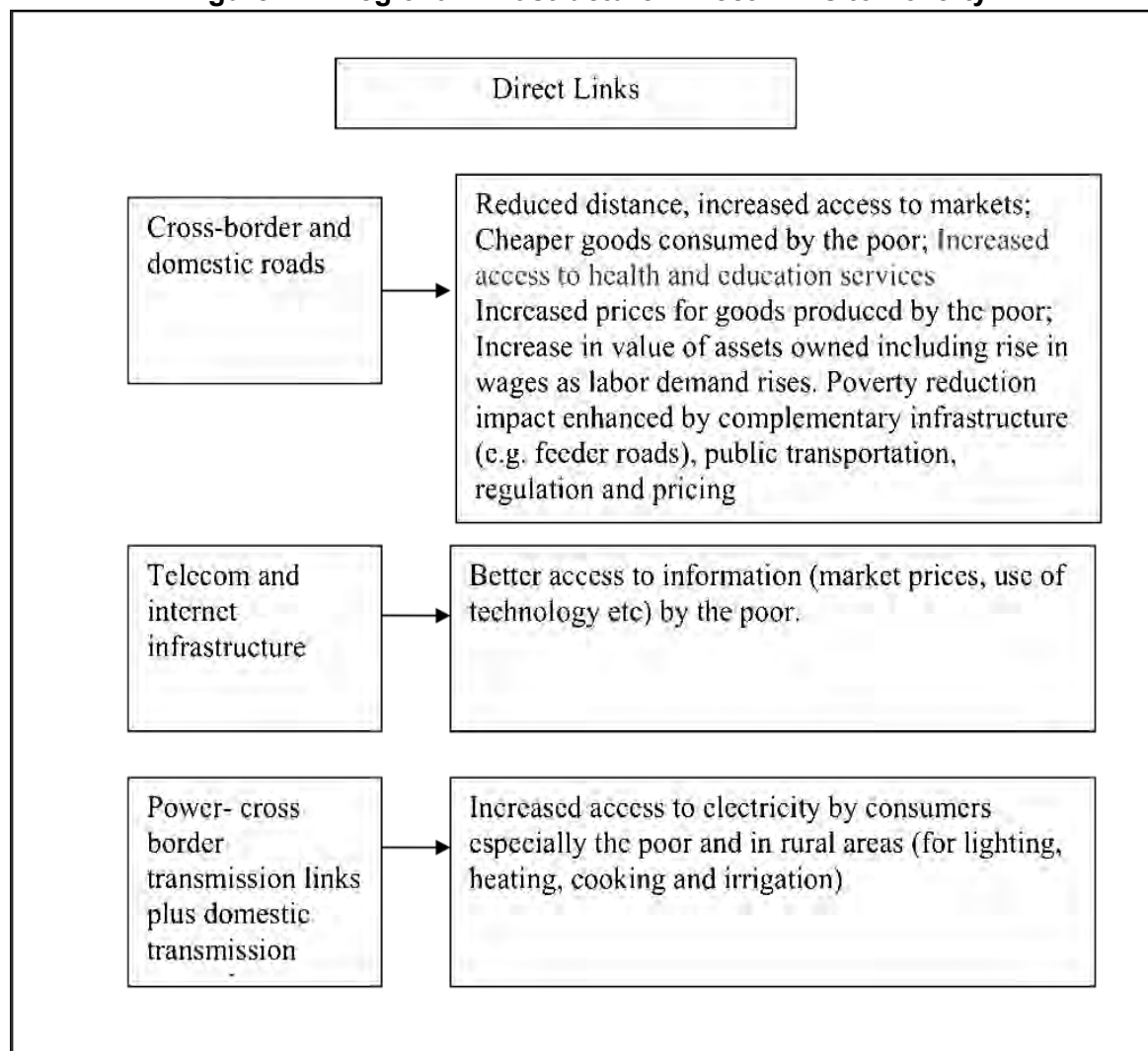
**Map 7.1: Distribution of Poverty by Leading and Lagging Regions in South Asia**

Source: Ahmed and Ghani (2008)

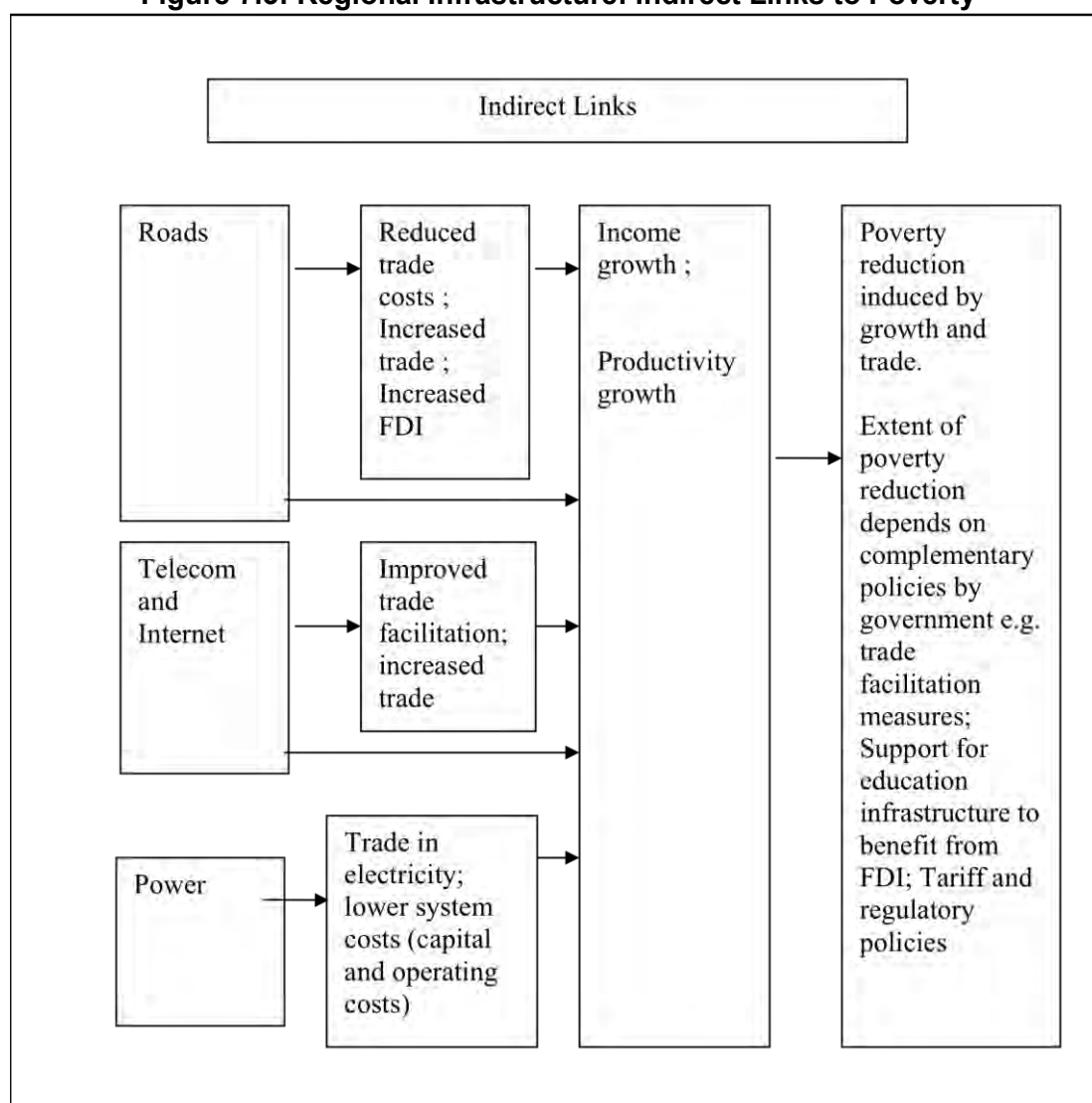
Notes (a) Afghanistan, Bhutan, and Maldives show national poverty rates. (b) This map is not to scale.

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**Figure 7.2: Regional infrastructure: Direct Links to Poverty**



Source: Srinivasan (2010)

**Figure 7.3: Regional Infrastructure: Indirect Links to Poverty**

Source: Srinivasan (2010)