

Project Working Paper
Bangladesh and the WTO Project

South Asian Free Trade Area

An Analysis of the Policy Options for Bangladesh

By

M. Asaduazzaman

Nazneen Ahmed

Sharif M. Hossain

Subrata Sarker

July 2003



Bangladesh Institute of Development Studies (BIDS)
E-17, Agargaon, Sher-e-Bangla Nagar, Dhaka
Bangladesh

South Asian Free Trade Area:

An Analysis of the Policy Options for Bangladesh

By

M. Aasduzzaman¹

Nazneen Ahmed

Sharif M. Hossain

Subrata Sarker

E-mail: asad@sdnbd.org

Abstract

The creation of a South Asian Free Trade Area is a widely discussed policy issue in this region. The lack of consensus among the nations in the region on the rules of such an arrangement restrains its entry into force. In the mean time, India and Sri Lanka have signed a bilateral free trade agreement, which may have negative impact on Bangladesh. Against this backdrop, Bangladesh is considering a bilateral free trade agreement with India. Another proposal is to have a free trade arrangement with Sri Lanka. The present paper compares the outcomes of such policy options for Bangladesh. Simulation results with the Global Trade Analysis Project (GTAP) model indicate that it may be harmful for the economy to wait for a consensus on SAFTA rules because of the prevailing free trade arrangements between India and Sri Lanka. Bangladesh may continue with SAFTA negotiation and at the same time give more stress on building up strategies to gain from multilateral arrangements. As a second best option, immediate initiatives to form Bangladesh- India FTA may compensate for the welfare loss from existing India – Sri Lanka FTA. However, if non-tariff barriers (NTBs) such as complex procedural matters continue despite tariff withdrawal, the expected benefits are unlikely.

¹ The Authors are respectively Research Director, Bangladesh Institute of Development Studies (BIDS); Research Fellow, BIDS; Research Officer, Bangladesh and the WTO Project, BIDS and Research Associate, BIDS.

1. Introduction

In recent years, one important policy concern regarding trade relations among South Asian countries is whether the creation of South Asian Free Trade Area (SAFTA) would ensure gains for its member countries or not. In December 1985, seven countries of South Asia i.e. Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka formed the South Asian Association for Regional Cooperation (SAARC) to promote economic, social and cultural cooperation. In 1993, the South Asian Preferential Trade Agreement (SAPTA) was initiated by the SAARC to promote greater regional economic cooperation, which came into effect from December 1995. Subsequently, the member countries of SAARC planned to transform SAPTA into a South Asian Free Trade Area (SAFTA), which is expected to be in place by (in a complete form) 2008. The main motivation behind the creation of SAFTA is to enhance intra-regional trade among SAARC members through the removal of tariff and non-tariff barriers and thereby to enjoy the gains of regional integration and at the same time to become more competitive in the global market.

Previous studies (Srinivasan: 1994, Samarasinghe: 1999, Bandara and Yu: 2001 and some others) have expressed divergent views about the possible impact of SAFTA on its members. While some have expressed optimism about the impact, others are skeptical. Recently there has been proposal, mainly from the business community, to initiate bilateral free trade arrangements with India. Another proposal is to go for a bilateral free trade arrangement with Sri Lanka. The question is whether such initiatives will benefit the nation as a whole or only a few segments in the society. To reach a conclusion and to suggest policy advice, a quantitative assessment is needed of the impacts of SAFTA and other policy options on Bangladesh as well as on other SAARC countries. This paper aims to fulfill that need by assessing the impacts of the South Asian Free Trade Area (SAFTA) and other alternative policy options on the Bangladesh economy as well as on other SAARC member countries. There is no study to compare the outcomes of SAFTA *vis-à-vis* alternative bilateral free trade proposals. The Global Trade Analysis Project (GTAP) model, – a global Applied General Equilibrium (AGE) model is used for the analysis.

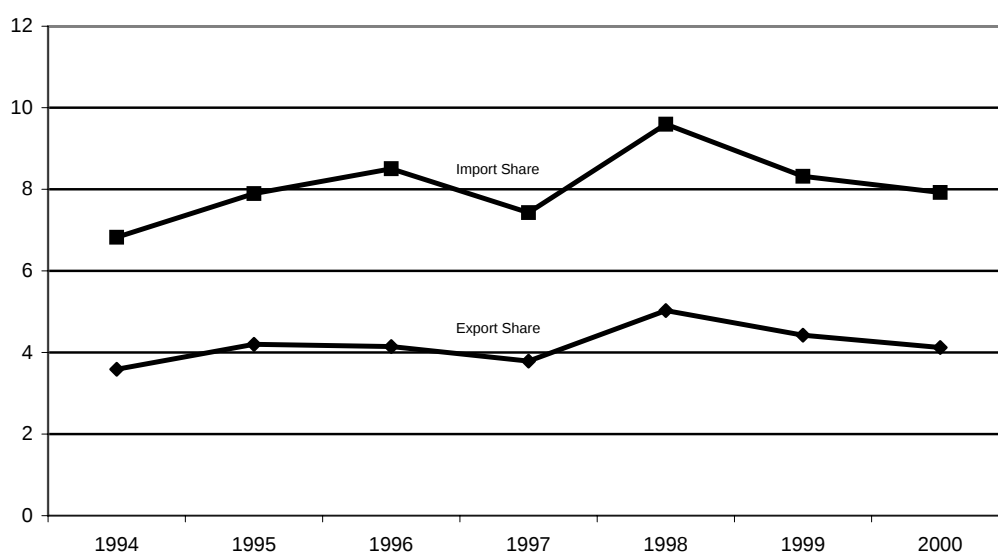
This paper is organized as follows. Section 2 provides the intra-regional trade structure within South Asia. Section 3 presents a brief review of some existing studies on SAFTA

as well as on regional integration. Section 4 points out some salient features of proposed SAFTA agreements. These three sections provide the background against which the results of later analysis have to be assessed and understood. An overview of the GTAP model and data is provided in Section 5. Policy simulation scenarios are also presented in this section. Simulation results are discussed in Section 6, while Section 7 provides a discussions on the results and offers some concluding remarks.

2. Current Intra-South Asian Trade Structure

The level of intra-regional trade in South Asia is insignificant compared to such trade in other parts of the world. Figure 1 provides the intra-regional import and export shares in South Asia in the region's total trade. It shows that the intra-regional import share is slightly higher than the export share but both are rather low, about 8 and 4 percent of the total values of import and export respectively. The trade structure has remained largely unchanged overtime. Thus both for their import and export the South Asian countries depend mainly on countries outside the region.

Figure 1: Share of Intra-Regional Trade in Total Trade of South Asia (Percentage)



Source: Based on Direction of Trade Statistics, IMF, Different Issues

Figure 2 shows the share of the South Asian countries in intra-regional trade as exporter in the year 2000. The figure identifies India as the dominant exporter in the region with a share of 72 percent. Bangladesh's share in the regional export is miniscule, only 3 percent while her share in import is more substantial at 34 percent (see Figure-3). All of the South Asian countries except India have a trade deficit within the region. Bangladesh has the largest trade deficit among them all.

Figure 2: Share as Exporter in Intra-Regional Trade (2000)

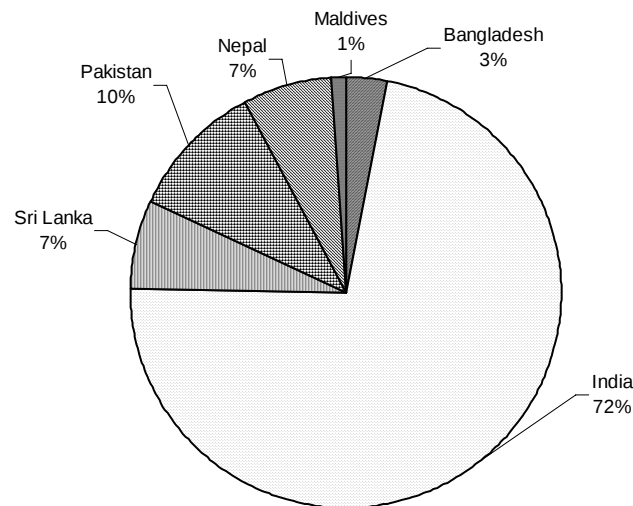
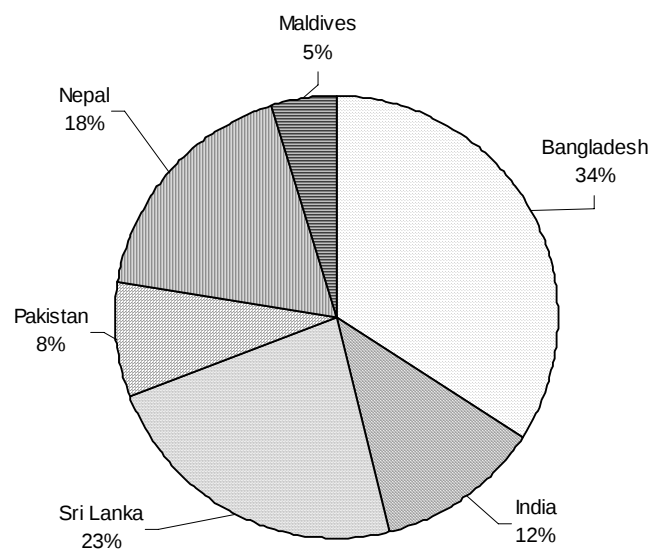


Figure 3: Share as Importer in Intra-Regional Trade (2000)



For Bangladesh, import from India comprises a significant share of the country's total import. Bangladesh's major imports from India are rice, grains, vegetable, fruit, nuts, fibers, sugar, textile, chemical, rubber, plastic products and capital intensive manufacturing. On the other hand Bangladesh's major export to India is limited to fish, textile, leather and capital intensive manufacturing. Bangladesh has probably a very large unofficial trade with India. Informal import from India to Bangladesh constitutes more than 100 percent of the formal import level between these two countries and in case of export the corresponding figure is around 600%². The main items Bangladesh informally imports from India are primary products, which include livestock, fishery, pulses, spices, rice etc. A significant part of Bangladesh's informal exports to India consist of items imported from non-SAARC countries. These include synthetic fabrics, spices, VCPs/VCRs, other electronic goods, ball bearings, metal scrap etc.

3. Some Existing Studies on South Asian Regional Trade

The impacts of both SAPTA and SAFTA have received attention in different studies. Only a few studies, however, have attempted to quantify the possible economic impacts on the member countries. Such impact assessment is necessary to decide upon an arrangement, which at least, will not be harmful for any of the members. The existing studies reflect the lack of consensus about the outcomes of preferential trade arrangements in the SAARC region on its member countries. Studies by Srinivasan (1994) and Srinivasan and Canonero (1995) have used the gravity model to estimate the impact of regional integration in South Asia. They conclude that multilateral trade liberalization on a global basis would yield higher return for the region compared to preferential trade arrangements within the region. Their studies also suggest that small economies in the region would gain much more from preferential trade liberalization than larger economies. Samararatunga (1999) has also used the gravity model to explore the impacts of SAARC-Asia-Pacific Economic Cooperation (APEC) trade relations. The study indicates that the prospect for export expansion of SAARC region into APEC countries is narrow within the 1991-1995 policy framework. However the same method used by Rajapakse and Arunatilake (1997)

² Bakht Z. and Sen B. (2002)

to study the implications of SAPTA for Sri Lanka depicts that Sri Lanka would gain from SAPTA.

After the SAPTA turned to SAFTA, some studies looked at the potential impacts of the latter. Pigato *et. al.* (1997) found SAFTA to be 'highly desirable' notifying that this would result in significant welfare gains specially for small countries. However, Tennagoon (2001) concludes that SAFTA would generate significant benefits for Sri Lanka and India, while it would have adverse welfare effects for other SAARC members.

Bandara and Yu (2001) examined whether SAFTA is a desirable Preferential Trade Arrangement (PTA) or not. They analyzed the necessary conditions for forming a PTA and later used the GTAP model to quantify the effects of SAFTA compared to other policy options. Their results suggest that, South Asian countries may gain much more from multilateral trade liberalization than from the current SAPTA or the proposed SAFTA. However their study did not consider what would happen if SAFTA incorporates preferential treatments to the LDCs among its members.

Hossain and Duncan (1998) considered prospects for forming a Discriminatory Trading Area (DTA) in South Asia from a political economy perspective. They argued that the South Asian region would gain from such an initiative. They also pointed out that the economic asymmetry prevailing in the region may be considered as a favorable rather than unfavorable factor in the formation of DTA.

One may highlight one or two points from the above studies. First, even with a similar model results may vary. Secondly, general equilibrium modeling is comparatively rare in the regions. Third, multilateral trade may be more desirable than regional trading arrangements. None of these studies focus on Bangladesh, nor do there explicitly treat bilateral free trade as another policy option. The present paper tries to fill up with the gap in a modest way.

4. Some Salient Features of SAFTA³

4.1 Proposals by Committee of experts on SAFTA

At the Male summit in 1997, the SAARC member countries agreed to establish a South Asian Free Trade Area (SAFTA) by 2001. In accordance with the decision taken at the Tenth Summit in Colombo in 1998, a Committee of Experts was set up to draft a comprehensive treaty regime for creating a free trade area within the region. The committee agreed upon a schedule of tariff reduction and other rules to be followed under SAFTA.⁴ To enhance trade through the free movement of goods, the Committee of Experts proposed the tariff reduction schedule in two phases.

The phase I is depicted in Table 1 while phase II is described in Table 2.

Table 1: Tariff reduction proposed under SAFTA first phase

Countries	Existing Tariff Rates*	Tariff Rates Proposed Under SAFTA	Time Schedule
Developing Countries	More than 20%	20% (Maximum)	Within 2 Years
	Less than 20%	Annual reduction of 10%	Each of 2 Years
Least Developed Countries	More than 30%	30% (Maximum)	Within 2 Years
	Less than 30%	Annual reduction of 10%	Each of 2 Years

* The tariff rates on the date of enforcement of SAFTA

N.B. All tariff rates are actual tariff rates

Table 2: Tariff reduction proposed under SAFTA second phase

Countries	Existing Tariff Rates	Tariff Rates Proposed Under SAFTA	Time Schedule	
Developing Countries	20% or below	0-5%	Within 2 Years	
Least Developed Countries	30% or below	0-5%	Primary Product	Other Product
			Within 3 Years	Within 5 Years

N.B. Second Phase will begin at the end of first phase

It is observed from these tables that at the end of SAFTA implementation, a maximum tariff of 5% may prevail.

Furthermore, Contracting States will eliminate all non-tariff barriers (not conforming to WTO regulations) on a gradual basis within a period of 3 years (5 years for Least

³ This section is based on the SAARC Secretariat Documents collected from Ministry of Commerce of Bangladesh

⁴ It is worth to note here that the time schedule for creating SAFTA has already passed. Therefore dates are not mentioned here.

Developing Contracting States), beginning from the date of the enforcement of the Agreement.

4.2 Alternative proposed by Bangladesh

Bangladesh has put on board a different SAFTA proposal which has the following tariff reduction strategy (Table 3):

Table 3: Bangladesh's alternative tariff reduction proposal

Origin of products	Tariff rates proposed (after reduction from existing rate)	Time schedule	
Developing countries	0-5%	First date of fifth year	
Least developed countries	0-5%	If importing country is developing country	First date of fifth year
		If importing country is least developed country	First date of third year

In addition to the tariff reduction agenda which demands special consideration for the LDC products, the Bangladesh proposal also includes that the contracting parties shall eliminate all quantitative restrictions, except otherwise permitted under GATT 1994, in respect of products included in their schedules of concessions by the end of the first year beginning from the date of entry into force of SAFTA.

Committee of Experts (CoE) on drafting a comprehensive treaty regime held its fourth meeting on December 27-29, 2002 at Kathmandu. CoE discussed existing new proposals on pending issues such as Trade Liberalization Programme, Revenue Compensation Mechanism and concessions sought by LDCs. CoE at the fourth meeting recommended that further deliberations would be essential in order to comprehensively cover all the pending issues and suggested a fifth and final meeting for this purpose. To ensure an equitable distribution of benefits of trade to small and least developed countries, the fourth meeting of CoE agreed to keep special and differential treatment for these countries as a separate agenda at the fifth CoE meeting.

5. Estimation Method

5.1 *The Data and the Model*

The current study has used the data and the modeling framework given under the Global Trade Analysis Project (GTAP). GTAP is a multi-regional Applied General Equilibrium (AGE) model, which captures various aspects of world economic activity (Hertel, 1997). At present, the GTAP model has become a useful tool for analyzing the effects of PTAs.⁵ Since the main objective of this paper is to assess the impact of SAFTA on its member countries, a multi-regional AGE model is an appropriate analytical tool.

The GTAP database covers all the bilateral trade, transport and protection data, that link 66 country/regional economic databases. The latest version (Version 5) of the GTAP database represents the world economy in 1997.⁶ This version has 66 regions, 57 commodities and 5 factors of production. The current study has combined 66 regions into 14 aggregated regions and 57 commodities into 20 aggregated commodities. The strategy and logic behind such aggregation is discussed below. There is also a change in the closure in the present study. In the default setting of the GTAP modeling framework, labour is assumed to be employed fully. However in reality, large scale unemployment of unskilled labour is a major feature in the SAARC region. For example in Bangladesh the nation wide unemployment rate is 4.3% (LFS: 2002) of the total labour force. What is more alarming is the high rate of underemployment – defined as working population working less than 35 hours during the reference week, which is around 16.6 percent according to the Labour Force Survey (2002). Therefore this study has assumed that supply of unskilled labour for the SAARC member countries as well as for China is perfectly elastic. Thus in this case the wage is fixed for the unskilled labour of the SAARC region and China.

⁵ Fordetails about the GTAP modeling framework and the sources and characteristics of the data , see Hertel (1997)

⁶ The regional data bases have been derived from individual country domestic data bases or input-output tables. The individual country input-output tables then have been reconstructed in a form of sectoral Disaggregation

5.2 Region and Commodity Aggregation Strategy

Since the main objective of the study is to assess the impact of SAFTA and other alternative policy options for the SAARC region, we have separated all SAARC regions as much as possible (Bangladesh, India, Sri Lanka, Rest of South Asia).⁷ The other regions distinguished are China, Japan, Association of South East Asian Nations (ASEAN), High Income Asia, Canada, USA, European Union (EU), Australia and New Zealand (see Table Appendix.1). These regions are separated because SAFTA member countries have a significant trade relationship with these regions or countries. Other regions are combined as Rest of the World (ROW).

In case of goods, 57 commodities are aggregated into 20 commodities (see table A.2). The main strategy for this aggregation is to keep the major traded commodities of the SAARC members (both in case of intra-SAARC trade and trade with rest of the world) separate and aggregate the rest.

There are five factors of production -land, unskilled labor, skilled labor, capital and natural resources.

5.3 Simulation Design

In this study, seven simulations were performed where one is a base case and each of the rest contains a different regional arrangement option for Bangladesh. The base simulation was necessary to incorporate some recent changes in the SAFTA region, which is not covered in the database considered. In December 1998 India and Sri Lanka entered in a bilateral Free Trade Arrangement. Since GTAP version 5 database reflects the world economy of 1997, it does not provide the updated data covering India - Sri Lanka FTA. The base simulation considers complete tariff elimination between India and Sri Lanka. In all simulations, NTBs are assumed to be absent. All other simulations are run on this new base. Sim 2 refers to full implementation of SAFTA. The study did not perform the simulation containing the alternative SAFTA proposal made by Bangladesh incorporating

⁷ The GTAP data base (version 5) does not have separate data on Pakistan, Nepal, Bhutan and Maldives. They are considered jointly as Rest of South Asia

conditions in favor of LDCs in SAARC. Such a simulation requires different tariff reduction timing for the commodities of different origin and the commodity aggregation of the considered database does not permit us to do that. Therefore from now on SAFTA impacts will refer to the impacts of complete implementation of SAFTA (implementation of SAFTA second phase) in its originally proposed form. Sim 3 points to a customs union situation. However the aim here is to take account of tariff liberalization rules of world trade organisation (WTO) or multilateral preferences. For simplicity, 15% common tariff reduction has been considered. Though it is not 15% for all the commodities, this was chosen arbitrarily. Sim 4 has been considered to show what happens in a complete free trade situation, a real free world. Sim5 and sim 6 are considering possibilities of Bangladesh to enter in bilateral free trade agreements with the neighboring countries. Recently both Bangladesh and India have agreed to start negotiation on a bilateral free trade agreement between the two countries. Also some business communities in Bangladesh are proposing for a free trade agreement with Sri Lanka. So it is very desirable to see the implications of such policy options. Sim 7 considers the situation if Bangladesh goes for free trade agreements with both India and Sri Lanka. Already existing India - Sri Lanka free trade agreement will translate such attempts of Bangladesh in a tripartite free trade arrangement among these three countries.

Sim 1: Base simulation - India Sri Lanka Free Trade Area

Sim 2: (SAFTA): All SAARC countries reduce their existing tariff rates to 5%. If the existing tariff rate is less than 5% it will remain unchanged

Sim 3: SAFTA plus 15% uniform external tariff for rest of the world.

Sim 4: All countries of the world reduce their external tariff to zero against all other countries in the world.

Sim 5: Bangladesh India Free Trade Area

Sim 6: Bangladesh Sri Lanka Free Trade Area

Sim 7: Bangladesh India Sri Lanka tripartite Free Trade Area

6. Simulation Results

Simulation results of different policy options are presented in the Tables B.1 to B.7 in Appendix B. It is to be noted here that bilateral free trade in this study refers to simultaneous and complete withdrawal of all tariffs by both the parties⁸. In reality, FTAs often deviate from this idea of complete withdrawal of tariff and Bangladesh has already demanded preferential status from India in case of an FTA with that country⁹. But no specific modalities have been discussed till now. Therefore we deal with the ideal case of complete removal of all tariffs between the contracting countries. As indicated earlier, we also assume a complete absence of NTBs while formulating policies. It should be emphasized that any deviation from this ‘ideal’ position in favour of Bangladesh keeping in view her LDC status and vulnerability to external shocks, needs to be given proper attention and examined thoroughly.

6.1 Welfare Effects

To get an immediate picture of the outcome of any policy option, it is plausible to look at the welfare impact of such policy. In GTAP welfare effects are determined mainly by three factors, i.e., changes in allocative efficiency, changes in country’s terms of trade (ToT) and changes in endowment. Allocative efficiency refers to the efficient sector-wise allocation of scarce resources to produce the optimal combination of output. In the open economy context it also refers to efficiency in resource use in purchasing imported products. Terms of trade effect(TOT) refers to relative movement in prices of countries exports and imports. ToT effect increases with relative increase in the price of exports as compared to imports. Endowment effect is a measure of how much the countries gain due to increase in employment of factors of production such as land, labour or capital

As mentioned earlier a Free Trade Arrangement of India and Sri Lanka has been considered as the base case. It is observed that Bangladesh currently faces an aggregate welfare loss in this situation (Table B.1). This is mainly due to the losses in endowment effect and terms of trade effect. This is because our export industry is losing as Sri Lanka

⁸ In contrast, in case of SAFTA, specific tariff reduction modalities have already been proposed and simulations related to SAFTA have been performed accordingly.

⁹ The Daily Star, 23rd May; 2003.

is now better poised to reap the benefits of the large Indian market as duty-free import of raw materials by the Sri Lankan export industry is making them more competitive than Bangladeshi exporters. Both India and Sri Lanka experience welfare gain as expected. Commodity decomposition of allocative efficiency loss (Table B2) shows that the highest allocative efficiency loss for Bangladesh occurs in the wearing apparel sector. Export of wearing apparel from Bangladesh to both India and Sri Lanka is declining (Table B6) which points to the trade diversion impacts of India Sri Lanka FTA.

From the welfare impacts in Table B.1, we observe that multilateral tariff reduction (zero tariffs for all regions) for the whole world has better outcomes for all SAARC countries than those from the preferential arrangements and bilateral arrangements. Though this was the general conclusion of Banadara and Yu (2001), the current findings do not reproduce their finding of negative gains for Bangladesh under SAFTA. Our simulation indicates that SAFTA indeed generates positive outcome for Bangladesh as well as for other SAARC members. Bandara and Yu generates different results possibly due to their assumption of full employment of unskilled labour.

A combination of preferential arrangements under SAFTA and some uniform tariff concession to ROW (Sim 3) generates much better outcome than SAFTA alone¹⁰. For Bangladesh, a free trade agreement with only Sri Lanka (Sim 6) as has been proposed recently by some policy makers generates only a small welfare gain for Bangladesh. However this is not an efficient solution as it leads to losses in allocative efficiency and terms of trade loss despite some marginal gain in the endowment effect due to a slight expansion in the export industries.

Among the regional preferential arrangement options, the best scenario is a tripartite free trade arrangement between Bangladesh, India and Sri Lanka (sim7). This not only compensates for the existing loss of welfare due to India-Sri Lanka FTA but also leads to relatively large welfare gain for the country by creating more employment for the unskilled labour category (Table B1 and B3) which is reflected in the large positive endowment effect in the aggregate welfare. A free trade agreement with only India largely mimics this scenario (sim 5). In both the cases there is some loss in terms of trade and

¹⁰ This scenario seems more realistic in possible future in consideration of the implementation of the WTO rules.

allocative efficiency effect for Bangladesh as compared to the base situation of India-Sri Lanka FTA. .

In the SAFTA and multilateral tariff reduction simulations, a large part of welfare impact emerges from the allocative efficiency gain.¹¹ We also notice that India's gain is more than double the gain for Bangladesh, while countries in rest of south Asia are gaining almost the same as that of Bangladesh.

6.2 Changes in Output and Unskilled Labour Employment

Table B5 presents the percentage change in output under different simulations. Under the heading 'Base' in that table, we have shown the changes in output due to the existing India-Sri Lanka FTA compared to the situation in the original GTAP database of 1997 when there was no FTA between these two countries. For all other simulations in Table B5, changes in output as compared to the existing base of India-Sri Lanka FTA have been shown. In case of textile and wearing apparel (the single most important export sector of Bangladesh), Bangladesh mainly experiences increases (with one or two exceptions). However the increase in case of multilateral tariff reduction is much higher than in the case of SAFTA. There is not much output changes from SAFTA or Bangladesh Sri Lanka free trade arrangements though there is a better outcome from Bangladesh – India FTA or Bangladesh – India – Sri Lanka tripartite arrangements. Even in these cases the effect on output is very marginal for all commodities except some positive impact on textile, wearing apparel, leather and capital intensive manufacturing sector. Output agricultural commodities such as rice, grains, oil and oil seeds, raw milk and dairy products decline marginally. Rice production of Bangladesh experiences marginal increases for multilateral tariff reduction, but marginal declines for SAFTA or bilateral arrangements.

The change in unskilled labour use is less than 1 percent for SAFTA and bilateral arrangements, but quite high for multilateral arrangements including SAFTA plus 15% tariff against ROW. India also experiences similarly. It should, however, be noted that small percentage changes in labour use lead to significant positive endowment effect as

¹¹ The allocative efficiency gain is achieved by the dual effects of both a shift to the production of more efficient products and shift to production with more efficient use of inputs.

shown in Table B1. This is indicative of the scope of welfare increase by expanding the regional market for employing the large pool of unemployed labours in the region.

6.3 Changes in selected Macro Scenario

Bangladesh's export of wearing apparel to India increases in all the simulations but the base case (Table B6). For most of the commodities Bangladesh's export to India rises in all simulations. Removal of comparatively higher tariffs in India makes it more profitable to export to India rather than to other SAFTA countries. Imports of textile goods (raw material for the wearing apparel industry of Bangladesh) from India rises under both SAFTA and Bangladesh-India bilateral free trade agreements, but declines under multilateral tariff reduction cases (Table B7). This indicates that Bangladesh shifts to other sources of textile imports rather than India, when the multilateral tariff reduction takes place.

7. Discussions and Conclusion

The modeling tool that has been used here is neo-classical. Any trade liberalizations under such models will always be welfare increasing. In that sense the result depicting welfare increase is not surprising. What is important, however, is the source of the gain.

As South-Asia is in general a labour surplus region with high unemployment, the conventional model has been modified to reflect this ground reality. Much of the welfare gain occurs due to increased employment of unskilled labour. While the changes in output is not substantial, the total unemployment pool is so large that even a small increase in labour employment may have resulted in large aggregate welfare gains as in case of tri-lateral free trade among Bangladesh, India and Sri Lanka. Only in case of regional free trade or customs union or completely free multilateral trade does other source such as allocative efficiency become important.

Do all these results mean that multilateralism should be sacrificed in favour of more regional or bilateral free trade. Remembering that at present much of Bangladesh's origins of import and destinations of export lie outside the region, multilateralism or a more broad based custom union may be the goal. Bilateral free trade may only be a stepping stone towards that end.

Finally all these depend on free trade in its real sense i.e. goods and services are free to move without any tariff or non-tariff barriers whatsoever. Unfortunately the lessons so far indicate that while everybody agrees to tariff removals, actual trade has to cross sometime much tougher tariff barriers which under no stretch of imagination can be touted as free trade. Till such a situation of unfettered movement of goods and services occur, the 'gains' from free trade will only remain a dream.

8. References

- Bandara S. J. and Wusheng Yu (2001), 'How Desirable is the South Asian Free Trade Area? – A Quantitative Economic Assessment.', SJFI – Working Paper no. 16.
- Bakht Z. and Sen B. (2002), 'Border Trade In the South Asian Growth Quadrangle (Bangladesh, Bhutan, India and Nepal)', Bangladesh Institute of Development Studies, (mimeo), Bangladesh.
- Brockkmeier, M. (2001), 'A Graphical Exposition of the GTAP Model'. GTAP Technical Paper No. 8.
- Hertel, T. W. (ed) (1997), 'Global Trade Analysis: Modeling and Applications', New York: Cambridge University Press.
- Hossain, M. M. and Duncan, R. C. (1998), 'The Political Economy of Regionalism in South Asia', Economic Division Working Papers, SA 98/1. NCDS Publications Online.
- LFS (2002), 'Report of the Labour Force Survey Bangladesh 1999-2000', Bangladesh Bureau of Statistics
- Pigato, M., Farah, C., Itakura, ., Jun, K., Martin, W., Murrell, K. and T. G. Srinivasan (1997), 'South Asia's Integration into the World Economy', Washington, D.C.: World Bank.
- Rahman M. (1998), 'Bangladesh India Bilateral Trade: Current Trends, New Perspectives, New Challenges', *BISS Journal*, VOL. 19, NO. 1.
- Rajapakse, P. and Arunatilleke, N. (1997), 'Would a Reduction in Trade Barriers Promote Intra-SAARC Trade? A Sri Lankan Perspective', *Journal of Asian Economics*, 8, 1, 95-115.
- Samaratunga, R. H. S. (1999), Essays in Trade Policy and Economic Integration with Special Reference to South Asia, Unpublished PhD Thesis, La Trobe University, Melbourne.
- Srinivasan, T.N. (1994), 'Regional Trading Arrangements and Beyond: Exploring Some Options for South Asia, Theory, Empirics, and Policy', Report No. IDP-142 (Washington, D.C.: World Bank).
- Srinivasan, T.N. and G. Canonero (1995), 'Preferential Agreements in South Asia: Theory, Empirics and Policy', Yale Growth Centre, Yale University (mimeo).

Tennagoon, A., (2001), 'The Welfare Impact of Trade Liberalization on Sri Lanka: A CGE Analysis', Paper presented for the Association of Pacific Rim Universities 2nd Annual Doctoral Students Conference 1-4, February 2001, Auckland, New Zealand.

Appendix A: Regional and Commodity Aggregation

Table A.1: Regional Aggregation

No	Region Description	Comprising old regions
1	Bangladesh	Bangladesh.
2	India	India.
3	Sri Lanka	Sri Lanka.
4	Rest of South Asia	Rest of South Asia.
5	China	China.
6	Japan	Japan.
7	ASEAN 6	Indonesia; Malaysia; Philippines; Singapore; Thailand; Vietnam.
8	High Income Asia	Hong Kong; Korea; Taiwan.
9	Canada	Canada.
10	United States	United States.
11	European Union	Austria; Belgium; Denmark; Finland; France; Germany; United Kingdom; Greece; Ireland; Italy; Luxembourg; Netherlands; Portugal; Spain; Sweden.
12	Australia	Australia.
13	New Zealand	New Zealand.
14	All other regions	All Other Countries of the World

Table A.2: Commodity Aggregation

No	Sector Description	Comprising old sectors
1	Rice, paddy and processed	Paddy rice; Processed rice.
2	Non-rice grains	Wheat; Cereal grains nec.
3	Oil seeds & Veg. oils and fats	Oil seeds; Vegetable oils and fats.
4	Vegetables, fruit, nuts	Vegetables, fruit, nuts.
5	Plant-based fibers & Crops nec	Plant-based fibers; Crops nec.
6	Raw milk & Dairy products	Raw milk; Dairy products.
7	Fishing	Fishing.
8	Sugar	Sugar.
9	Food products nec	Food products nec.
10	Beverages and tobacco products	Beverages and tobacco products.
11	All other foods	Sugar cane, sugar beet; Cattle, sheep, goats, horses; Animal products nec; Wool, silk-worm cocoons; Meat: cattle, sheep, goats, horse; Meat products nec.
12	Natural resources and extract	Forestry; Coal; Oil; Gas; Minerals nec.
13	Textiles	Textiles.
14	Wearing apparel	Wearing apparel.
15	Leather products	Leather products.
16	Chemical, rubber, plastic prods	Chemical, rubber, plastic prods.
17	Labor intensive manufacturing	Wood products; Paper products, publishing; Ferrous metals; Metals nec; Metal products.
18	Capital intensive manufacturing	Petroleum, coal products; Mineral products nec; Motor vehicles and parts; Transport equipment nec; Electronic equipment; Machinery and equipment nec; Manufactures nec.
19	Tradable services	Construction; Trade; Transport nec; Sea transport; Air transport; Communication; Financial services nec; Insurance; Business services nec; Recreation and other services.
20	Non tradable services	Electricity; Gas manufacture, distribution; Water; PubAdmin/ Defence/Health/Educat; Dwellings.

Appendix B: Simulation Results

Table-B.1: Decomposition of Equivalent Variation (\$ US million)

	Base					SAFTA					SAFTA plus 15% Uniform External Tariff				
	Allocative Efficiency	Endowment Effect	TOT Effect	I-S Effect	Total	Allocative Efficiency	Endowment Effect	TOT Effect	I-S Effect	Total	Allocative Efficiency	Endowment Effect	TOT Effect	I-S Effect	Total
Bangladesh	-0.6	-2.0	-1.5	-0.1	-4.2	14.6	99.5	-4.5	1.5	111.1	326.7	550.2	25.3	51.1	953.3
India	21.9	43.5	92.0	2.8	160.2	56.7	75.2	122.5	3.8	258.0	1210.6	1499.8	-384.5	-132.4	2193.5
Sri Lanka	12.0	121.1	-8.9	-3.0	121.2	21.2	-18.5	6.5	2.3	11.4	213.2	234.2	8.9	16.1	472.4
Rest of S. Asia	-0.3	0.2	-3.8	-0.5	-4.3	20.4	106.4	5.9	-0.3	132.4	1357.0	1151.0	-500.7	-375.0	1632.3

Table-B.1 (Continued)

	0 Tariff for all region					Bangladesh-India FTA					Bangladesh-Sri Lanka FTA				
	Allocative Efficiency	Endowment Effect	TOT Effect	I-S Effect	Total	Allocative Efficiency	Endowment Effect	TOT Effect	I-S Effect	Total	Allocative Efficiency	Endowment Effect	TOT Effect	I-S Effect	Total
Bangladesh	684.7	1396.2	-58.0	69.7	2092.7	-4.0	149.4	-23.3	-2.1	120.0	-0.5	4.4	-0.1	0.0	3.8
India	2892.2	4016.3	-1184.7	-56.4	5667.5	44.7	61.6	115.5	3.5	225.4	0.1	0.1	-0.3	0.0	-0.1
Sri Lanka	387.6	853.1	168.4	20.4	1429.5	0.4	-2.1	-2.5	0.0	-4.2	0.9	1.3	3.3	0.4	5.9
Rest of S. Asia	1798.0	2374.2	-548.6	-538.0	3085.6	-1.1	-1.1	-1.6	-0.2	-3.9	-0.1	-0.1	-0.1	0.0	-0.2

Table-B.1 (Continued)

	Bangladesh-India-Sri Lanka tripartite FTA				
	Allocative Efficiency	Endowment Effect	TOT Effect	I-S Effect	Total
Bangladesh	-4.2	153.7	-23.4	-2.0	124.1
India	44.7	61.7	115.1	3.5	225.0
Sri Lanka	1.2	-0.9	0.7	0.4	1.4
Rest of S. Asia	-1.1	-1.2	-1.7	-0.2	-4.1

Table-B.2: Commodity Decomposition of Allocative Efficiency

	Base				SAFTA				SAFTA plus 15% Uniform External Tariff			
	Bangladesh	India	Sri Lanka	Rest of S. Asia	Bangladesh	India	Sri Lanka	Rest of S. Asia	Bangladesh	India	Sri Lanka	Rest of S. Asia
Rice	-0.08	-1.46	4.5	0.28	1.36	0.56	6.36	-0.59	2.16	1.25	8.99	-1.38
Grains	0	0.01	0.12	-0.02	-0.07	-0.22	0.15	-0.04	-2.16	-13.55	0.71	-14.52
Oil & Oil seeds	-0.02	1.41	-0.92	-0.35	0.93	2.49	0.23	1.14	25.03	83.59	0.87	116.63
Vegetable & fruits	0.01	0.73	1.18	-0.06	0.14	1.84	0.46	0.88	4.93	27.32	2.78	9.9
Fibers	-0.05	0.25	-1.03	-0.16	3.92	0.03	0.8	2.73	1.28	4.7	3.29	23.52
Raw milk & dairy products	-0.01	0.04	0.06	-0.01	0.69	0.18	0.09	0.09	8.05	0.92	0.92	3.64
Fishing	-0.01	0.01	0	0	0.13	0.11	0	0.01	0.17	0.13	0	0.14
Sugar	-0.03	0.24	-0.66	-0.14	3.45	3.8	0.38	5.22	10.26	8.16	1.81	22.11
Food products	-0.04	-0.2	0.17	-0.01	7.6	0.35	0.6	0.66	11.69	24.58	3.96	16.2
Beverages & tobacco	-0.02	0	0.62	-0.01	0.41	-0.01	0.1	0.48	0.14	88.97	20.41	4.8
Other food	0	0.28	1.91	-0.04	0	0.43	0.15	0.11	0.63	1.94	6.45	15.99
Extraction	0	2.8	-0.84	0.03	0.35	5.26	0.22	0.1	0.12	107.95	11.5	-7.23
Textiles	0.05	-0.75	-1.41	0.46	-5.55	-3.01	2.54	3.91	144.32	65.74	55.95	142.09
Wearing apparel	-0.21	-15.34	3.97	0.28	4.08	-17.69	0.76	0.66	49.39	47.67	39.46	100.88
Leather	0	-1.34	-0.41	0.03	0.01	-2.34	0.13	0.05	0.31	-30.5	1.46	6.38
Chemical & plastic products	-0.02	2.55	-0.09	-0.04	-1.67	6.63	0.8	13.65	-3.96	91.49	-5.09	88.47
Labour intensive manufacturing	-0.04	6.31	-2.15	0.04	-0.45	16.49	2.15	-6.4	14.48	277.38	4.25	70.63
Capital intensive manufacturing	-0.16	25.62	4.73	-0.65	-0.18	40.1	5.07	-5.82	71.55	369.54	44.08	708.29
Trade able services	0.01	0.37	2.21	0.08	-0.65	0.93	0.19	3.27	-10.21	58.16	11.89	51.73
Non Trade able services	0	0.4	0.05	-0.01	0.08	0.72	-0.04	0.23	-1.45	-4.88	-0.5	-1.28
Total	-0.61	21.93	12.01	-0.3	14.57	56.65	21.16	20.35	326.73	1210.55	213.17	1356.99

Table-B.2 (Continued)

	0 Tariff for all region				Bangladesh-India FTA				Bangladesh-Sri Lanka FTA			
	Bangladesh	India	Sri Lanka	Rest of S. Asia	Bangladesh	India	Sri Lanka	Rest of S. Asia	Bangladesh	India	Sri Lanka	Rest of S. Asia
Rice	2.62	-11.5	12.36	-5.29	1.61	-0.81	0.01	0	0	-0.01	0.04	0
Grains	0.46	-9.19	0.89	-4.4	-0.13	-0.19	0	0	0	0	0.02	0
Oil & Oil seeds	35.03	96.46	0.93	153.43	0.39	1.89	0.03	-0.14	-0.14	0	0.26	-0.01
Vegetable & fruits	7.21	38.47	4	12.45	0.06	1.31	0.03	-0.04	0	0	0.01	-0.01
Fibers	7.71	0.39	3.09	34.18	2.73	-0.16	0.04	-0.06	0.07	0	-0.01	-0.01
Raw milk & dairy products	10.13	2.38	1.73	5.52	0.22	0.14	-0.01	0	0	0	0.02	0
Fishing	0.26	0.65	-0.01	0.37	0.01	0.11	0	0	0.13	-0.01	0	0
Sugar	12.97	12.74	2.45	28.61	3.34	0.9	0.02	-0.13	0	0	0	0
Food products	15.65	48.51	2.26	18.91	6.07	0.59	-0.01	-0.03	0.01	0	-0.04	0
Beverages & tobacco	-0.18	94.57	25.15	6.53	0.52	0.42	-0.02	-0.01	0.01	0	0.05	0
Other food	2.07	7.98	16.93	20.54	-0.01	0.34	-0.06	-0.01	0	0	0.06	0
Extraction	1.08	134.15	7.71	-5.06	0.29	3.32	0.01	-0.04	0	0.01	0.22	0
Textiles	198.8	219.22	80.49	227.58	-13.64	-0.65	0.18	0.07	-0.23	-0.02	-0.48	0
Wearing apparel	232.53	480.38	76.27	195.49	11.94	-19.82	-0.06	0.02	0.09	0.05	-0.32	0
Leather	1.92	9.69	1.9	19.3	0.11	-2.19	0.02	0.02	0	0	-0.01	0
Chemical & plastic products	-2.1	243.02	1.96	98.92	-4.49	12.13	0.04	-0.03	-0.17	-0.02	0.29	0
Labour intensive manufacturing	6.09	286.01	8.64	65.14	-2.65	10.82	0.12	-0.07	0.03	0.05	0.05	0
Capital intensive manufacturing	158.45	1012.92	113.7	812.18	-9.54	34.86	0.13	-0.56	-0.26	0	0.57	-0.02
Trade able services	-7.66	221.32	27.6	105.76	-0.91	1.12	-0.08	-0.03	-0.02	0	0.14	0
Non Trade able services	1.64	4.04	-0.48	7.87	0.12	0.6	0	-0.01	0	0	0	0
Total	684.71	2892.23	387.58	1798.04	-3.96	44.73	0.4	-1.05	-0.47	0.07	0.87	-0.05

Table-B.2 (Continued)

	Bangladesh-India-Sri Lanka tripartite FTA			
	Bangladesh	India	Sri Lanka	Rest of S. Asia
Rice	1.61	-0.82	0.05	0
Grains	-0.12	-0.19	0.02	0
Oil & Oil seeds	0.27	1.89	0.28	-0.15
Vegetable & fruits	0.07	1.31	0.04	-0.04
Fibers	2.8	-0.16	0.03	-0.06
Raw milk & dairy products	0.22	0.14	0.02	0
Fishing	0.14	0.11	0	0
Sugar	3.34	0.9	0.02	-0.13
Food products	6.08	0.59	-0.04	-0.03
Beverages & tobacco	0.54	0.43	0.03	-0.01
Other food	-0.01	0.34	0	-0.01
Extraction	0.29	3.32	0.2	-0.04
Textiles	-13.85	-0.66	-0.28	0.07
Wearing apparel	12.01	-19.76	-0.35	0.02
Leather	0.11	-2.19	0.01	0.02
Chemical & plastic products	-4.58	12.09	0.3	-0.03
Labour intensive manufacturing	-2.62	10.87	0.17	-0.07
Capital intensive manufacturing	-9.67	34.81	0.67	-0.57
Trade able services	-0.93	1.12	0.06	-0.03
Non Trade able services	0.12	0.6	0	-0.01
Total	-4.18	44.73	1.22	-1.09

Table-B.3: Value of GDP (percentage change)

	Sim1	Sim2	Sim3	Sim4	Sim5	Sim6	Sim7
BGD	-0.02	0.36	6.5	8.1	0.13	0.01	0.14
IND	0.24	0.34	1.47	-0.82	0.31	0	0.3
LKA	0.43	0.32	6.73	16.39	-0.04	0.15	0.1
RSA	-0.04	0.21	-1.16	-1.53	-0.02	0	-0.02
CHN	-0.01	-0.01	1.8	2.62	-0.01	0	-0.01
JPN	0	-0.01	4.92	0.11	-0.01	0	-0.01
ASEAN	-0.01	-0.01	-0.84	1.27	-0.01	0	-0.01
HincAsia	-0.01	-0.01	2.41	2.16	-0.01	0	-0.01
CAN	0	0	-2.92	-1.96	0	0	0
USA	0	-0.01	4.48	-1.37	0	0	0
EU	0	-0.01	-1.22	-1.4	0	0	0
AUS	-0.01	-0.01	3.99	0.81	-0.01	0	-0.01
NZL	0	-0.01	12.93	12.67	0	0	0
ROW	0	-0.01	0.46	-2.51	0	0	0

Table-B.4: Percentage change in employment (Unskilled Labour)

	Sim1	Sim2	Sim3	Sim4	Sim5	Sim6	Sim7
BGD	-0.01	0.6	3.32	8.41	0.9	0.03	0.93
IND	0.04	0.07	1.31	3.5	0.05	0	0.05
LKA	2.31	-0.35	4.39	15.94	-0.04	0.02	-0.02
RSA	0	0.54	5.87	12.09	-0.01	0	-0.01

Table-B.5: Industry Output of Commodity (percentage change)

	Base				SAFTA				SAFTA plus 15% Uniform External Tariff			
	Bangladesh	India	Sri Lanka	Rest of S. Asia	Bangladesh	India	Sri Lanka	Rest of S. Asia	Bangladesh	India	Sri Lanka	Rest of S. Asia
Rice	0.01	0.15	-2.88	-0.18	-0.17	-0.06	-1.41	0.54	0.18	-0.13	-1.4	1.02
Grains	0.02	0	0.48	0.02	-1.42	0.03	-0.57	0.04	3.79	0.85	-10.73	4.12
Oil & Oil seeds	0	-0.03	1.39	0.03	-0.63	0.21	29.98	-0.51	-11.23	-2.57	2.31	-7.32
Vegetable & fruits	0	0.11	-0.28	0.01	0.14	-0.02	0.6	0.41	1.24	2.43	1.3	3.36
Fibers	0	-0.04	2.11	0.01	1.32	0.22	1.65	-1.06	-1.61	-0.54	-8.8	-1.27
Raw milk & dairy products	0	0.01	1.79	0	-1.63	0.07	-0.32	0.15	-9.03	0.18	4.52	1.09
Fishing	0	0	0.28	0	-0.02	-0.01	0.12	0.06	0.77	0.22	0.27	0.67
Sugar	0	0.04	-0.88	0.04	-1.71	0.91	-0.35	-2.37	-3.05	1.52	162.56	1.9
Food products	0.01	-0.28	-0.43	0.01	-1.68	-0.03	0.03	1.44	-1.57	9.34	-2.33	-5.63
Beverages & tobacco	-0.01	-0.02	3.68	0	0.22	-0.01	1.18	0.57	-1.85	-2.4	-51.55	0.86
Other food	0	0	0.9	0.01	-0.12	0.02	0.01	0.11	-0.84	0.75	2.85	0.57
Extraction	0	-0.07	0.6	0.01	0.32	-0.05	-0.25	-0.04	1.77	-2.88	-8.27	-2.49
Textiles	0	0.12	0.51	0.06	0.85	-0.19	-0.23	0.94	-4.32	-1.05	-1.1	10.27
Wearing apparel	-0.08	-0.38	5.9	0.1	1.72	-0.81	-0.51	0.3	16.66	1.47	22.9	30.73
Leather	0.03	-0.74	-2.09	0.11	-0.1	-1.29	-0.58	0.1	-22.72	-15.7	-19.23	6.21
Chemical & plastic products	0.02	-0.01	0.95	0.01	-1.11	0.03	-0.31	1.52	-5.28	-0.63	-6.95	0.48
Labour intensive manufacturing	0	0.02	5.09	0.03	-0.46	0.12	-1.59	-0.13	-1.19	-3.84	-6.37	-10.83
Capital intensive manufacturing	0.02	0.05	-0.63	0.02	0.68	0.03	-0.03	0.01	-6.59	3.23	6.87	-12.1
Trade able services	-0.01	0	1.62	0.01	0.34	0.01	-0.31	0.28	2.79	1.06	1.69	4.42
Non Trade able services	-0.01	0.02	0.25	0	0.12	0.04	0.2	0.09	-0.07	0.15	2.37	1.81
Total	-0.01	0.09	4.06	-0.02	0.73	0.14	-0.89	0.92	8.49	6.55	12.18	22.71

Table-B.5 (Continued)

	0 Tariff for all region				Bangladesh-India FTA				Bangladesh-Sri Lanka FTA			
	Bangladesh	India	Sri Lanka	Rest of S. Asia	Bangladesh	India	Sri Lanka	Rest of S. Asia	Bangladesh	India	Sri Lanka	Rest of S. Asia
Rice	0.66	1.16	-3.05	3.46	-0.32	0.08	0.04	0	0	0	-0.03	0
Grains	-1.32	1.13	-29.73	3.36	-1.11	0.02	0.02	0	0.04	0	-0.2	0
Oil & Oil seeds	-19.82	-2.12	-7.25	-10.62	-0.33	-0.01	-0.13	0.01	-0.17	0	10.97	0
Vegetable & fruits	1.42	3.85	2.74	4.89	0.25	-0.03	0	0.01	0	0	0.06	0
Fibers	1.03	1.67	-11.73	-1.88	-0.12	0.1	0.04	-0.01	0.03	0	-0.22	0
Raw milk & dairy products	-12.94	0.77	10.03	2.28	-1.52	0.07	-0.03	0	0.01	0	0.02	0
Fishing	2.55	0.94	2.36	2.24	0.11	-0.05	-0.02	0	-0.02	-0.01	0.17	0
Sugar	-3.27	2.28	190.04	2.31	-1.97	0.21	0.06	0.03	0.01	0	-0.25	0
Food products	3.27	22.42	-7.46	15.52	-1.44	0.22	0.02	-0.09	0.05	0	-0.15	0
Beverages & tobacco	-2.58	-2.85	-66.97	0.68	0.31	0.02	0.1	0	0.01	0	-0.24	0
Other food	0.66	1.7	6.66	1.84	-0.07	0.01	-0.02	0	0.01	0	0.02	0
Extraction	0.83	-4.93	-10.9	-5.77	0.26	-0.1	0.01	0	0	0	-0.01	0
Textiles	9.39	3.07	-8.68	19.71	1.7	0.18	0.01	-0.01	0.1	0	-0.06	0
Wearing apparel	89.23	20.85	49.88	62.07	4.72	-0.86	-0.09	0.01	0.05	0	-0.21	0
Leather	-8.18	1.72	-36.51	36.41	1.88	-1.2	0.11	0.05	0.05	0	-0.63	0
Chemical & plastic products	-10.35	0.42	-9.29	-1.92	-1.33	0.13	-0.01	0	-0.05	0	0.3	0
Labour intensive manufacturing	-8.75	-6.93	-11.25	-18.83	-0.52	0.03	0.04	0	0.01	0	-0.04	0
Capital intensive manufacturing	-27.11	-0.41	0.26	-23.47	1.29	0.02	0	0	-0.05	0	0.17	0
Trade able services	4	2.6	10.73	8.97	0.48	0.01	-0.03	0	0.01	0	0	0
Non Trade able services	2.33	0.2	4.36	2.96	0.17	0.03	-0.02	0	0.01	0	0.03	0
Total	8.75	5.66	29.81	29.96	1.05	0.13	-0.07	-0.01	0.02	0	0.1	0

Table-B.5 (Continued)

	Bangladesh-India-Sri Lanka tripartite FTA			
	Bangladesh	India	Sri Lanka	Rest of S. Asia
Rice	-0.32	0.08	0.01	0
Grains	-1.08	0.02	-0.18	0
Oil & Oil seeds	-0.5	-0.01	10.65	0.01
Vegetable & fruits	0.26	-0.02	0.05	0.01
Fibers	-0.1	0.1	-0.17	-0.01
Raw milk & dairy products	-1.51	0.07	-0.02	0
Fishing	0.09	-0.06	0.15	0
Sugar	-1.97	0.21	-0.19	0.03
Food products	-1.4	0.22	-0.14	-0.09
Beverages & tobacco	0.32	0.02	-0.14	0
Other food	-0.06	0.01	-0.01	0
Extraction	0.26	-0.1	0	0
Textiles	1.79	0.18	-0.05	-0.01
Wearing apparel	4.76	-0.86	-0.27	0.01
Leather	1.92	-1.2	-0.49	0.05
Chemical & plastic products	-1.38	0.13	0.26	0
Labour intensive manufacturing	-0.51	0.03	0	0
Capital intensive manufacturing	1.24	0.02	0.15	0
Trade able services	0.49	0.01	-0.03	0
Non Trade able services	0.18	0.03	0.01	0
Total	1.08	0.12	0.03	-0.01

Table-B.6: Export sales from Bangladesh (percentage change)

	Base			SAFTA			SAFTA plus 15% uniform external tariff			0 Tariff for all region		
	India	Sri Lanka	Rest of S. Asia	India	Sri Lanka	Rest of S. Asia	India	Sri Lanka	Rest of S. Asia	India	Sri Lanka	Rest of S. Asia
Rice	0.65	-37.85	0.31	-0.25	-14.15	53.51	11.91	-21.7	22.01	-19.45	-21.85	28.34
Grains	0.52	0.08	-0.03	1.11	199.05	150.84	31.97	71.01	277.52	5.27	23.44	241.86
Oil & Oil seeds	0.53	-12.89	-0.04	180.62	2.47	249.51	92.98	-23.2	80.98	108.58	-39.54	86.74
Vegetable & fruits	0.53	-52.43	-0.09	116.79	12.12	173.02	50.96	-7.51	70.11	29.64	-22.49	58.88
Fibers	-2.47	-29.21	-0.02	97	7.11	87.34	58.94	-47.75	29.7	42.81	-69.12	14.45
Raw milk & dairy products	0.48	0.58	-0.1	62.71	208.39	132.1	28.32	160.93	28.78	28.9	126.37	30.33
Fishing	-0.2	-1.9	0.06	17.96	-1.87	-3.8	4.62	-10.96	-42.48	-1.67	-22.61	-62.87
Sugar	0.51	-4.06	0.13	71.36	214.57	134.34	34.34	39.15	53.94	33.8	-0.06	60.63
Food products	0.39	-5.13	0.03	182.15	214.76	261.19	65	159.6	102.95	35.5	167.4	56.64
Beverages & tobacco	-0.74	2.04	-0.06	7089.28	-1.44	418.86	716.9	-99.33	114.17	557.4	-99.72	74.68
Other food	0.63	-0.24	-0.11	50.46	210.38	223.61	28.63	133.97	48.98	17.81	154.77	40.21
Extraction	0.31	-1.09	0.1	-2.5	-2.48	1096.42	-43.32	-69.35	450.99	-71.26	-84.5	245.63
Textiles	0.22	-4.38	0.01	240.51	158.52	582.59	132.98	93.85	330.91	124.42	72.38	340.51
Wearing apparel	-3.68	-56.11	-0.06	1200.57	1015.9	4584.74	660.85	507.8	1521.88	733.05	382.08	1596.24
Leather	0.23	-17.73	0	0.75	118.76	117.27	-15.91	0.24	-29.72	-56.15	-45.04	-43.25
Chemical & plastic products	0.14	-4.32	0	7.6	2.94	161.88	-21.93	-3.62	38.75	-35.66	-33.68	14.08
Labour intensive manufacturing	0.16	-12.22	0.02	34.32	5.88	626.67	-26.54	-14.52	151.91	-43.43	-44.15	90.51
Capital intensive manufacturing	0.49	-6.75	0.01	550.27	48.12	572.3	418	32.3	66.06	233.16	-19.54	-1.33
Trade able services	0.37	1.52	0	-0.38	-0.88	-0.23	-13.01	-11.25	-16.57	-16.48	-2.93	-13.6
Non Trade able services	0.53	2.26	-0.01	-0.96	-1.44	-0.82	12.33	28.6	11.18	-25.97	0.19	-24.68

Table-B.6 (Continued)

	Bangladesh-India FTA			Bangladesh-Sri Lanka FTA			Bangladesh-India-Sri Lanka tripartite FTA		
	India	Sri Lanka	Rest of S. Asia	India	Sri Lanka	Rest of S. Asia	India	Sri Lanka	Rest of S. Asia
Rice	1.39	1.18	1.18	-0.02	0.24	-0.02	1.36	1.41	1.15
Grains	2.63	1.95	1.88	-0.02	267.23	-0.02	2.6	274.35	1.85
Oil & Oil seeds	250.61	1.17	0.79	0.26	0.9	0.28	251.5	2.05	1.06
Vegetable & fruits	178.86	1.1	0.4	-0.04	0.17	-0.02	178.73	1.26	0.37
Fibers	159.65	1.58	0.92	-0.04	0.07	-0.04	159.54	1.64	0.88
Raw milk & dairy products	111.32	1.78	1.79	0.05	279.4	0.05	111.4	286.11	1.83
Fishing	37.23	-2.17	-2.12	0.11	1.36	0.19	37.34	-0.85	-1.94
Sugar	127.83	1.51	1.68	0.02	285.08	0.02	127.85	290.87	1.69
Food products	262.47	0.07	0.01	0.04	284.47	0.04	262.6	284.69	0.05
Beverages & tobacco	10157.9	0.18	0.22	-0.04	0.17	-0.04	10153.07	0.33	0.17
Other food	93.04	1.01	1.02	0.01	290.78	0.01	93.03	294.69	1.02
Extraction	-1.88	-2.18	-2.02	-0.06	1.11	-0.05	-1.95	-1.14	-2.08
Textiles	343.83	2.03	1.99	0	219.13	0.01	343.82	225.62	1.99
Wearing apparel	1950.72	6.67	5.46	0.04	1289.73	0.04	1951.31	1381.95	5.48
Leather	7.98	2.63	2.33	0.04	243.51	0.04	8.01	252.57	2.36
Chemical & plastic products	31.76	1.5	1.4	0.03	0.15	0.03	31.79	1.64	1.43
Labour intensive manufacturing	75.26	1.89	1.62	0.01	0.13	0	75.26	2.01	1.62
Capital intensive manufacturing	802.79	0.17	0.05	-0.02	99.4	-0.02	802.54	99.7	0.03
Trade able services	0.19	-0.26	-0.24	-0.02	0.1	-0.02	0.17	-0.17	-0.27
Non Trade able services	-0.69	-1.37	-1.32	-0.04	0.19	-0.04	-0.74	-1.19	-1.37

Table-B.7: Import by Bangladesh (percentage change)

	Base			SAFTA			SAFTA plus 15% uniform external tariff			0 Tariff for all region		
	India	Sri Lanka	Rest of S. Asia	India	Sri Lanka	Rest of S. Asia	India	Sri Lanka	Rest of S. Asia	India	Sri Lanka	Rest of S. Asia
Rice	-0.65	7.81	0.92	16.19	-13.04	-8.75	26.38	-21.63	12.47	45.25	-48.05	24.05
Grains	-0.99	0.05	0.29	0.09	-1.77	4.57	42.45	47.36	56.04	18.71	1.08	38.96
Oil & Oil seeds	-1.05	3.34	0.18	384.23	96.1	204.38	252.25	34.63	162.84	190.58	-12.11	119.5
Vegetable & fruits	-1.06	2.35	0.36	-0.31	47.97	0.09	-1.51	23.13	8.3	-17.4	-15.37	-11.99
Fibers	-0.99	-0.37	0.31	105.62	463.02	24.86	141.68	565.51	62.13	149.46	467.01	69.23
Raw milk & dairy products	-1.08	-0.42	0.27	437.2	-12.7	442.18	268.96	-51.03	305.07	217.34	-76.86	236.3
Fishing	-0.38	-4.57	1.02	-10.27	137.78	-10.92	6.59	134.06	13.42	26.85	98.67	5.88
Sugar	-0.87	-0.82	0.24	343.55	-24.11	349.24	264.37	-29.34	325.62	248.97	-52.15	303.71
Food products	-0.88	-1.49	0.16	268.86	-2.12	274.15	280.49	-14.52	151.46	292.81	-40.42	263.74
Beverages & tobacco	-1.42	-6.3	0.2	1.58	3.65	3.86	-37.44	-54.26	-25.11	-50.13	-81.71	-43.33
Other food	-1.14	-1.71	0.32	-1.13	-0.9	0.01	-1.43	-20.11	11.55	-26.34	-61.03	-17.85
Extraction	-0.62	-5.96	0.08	0.56	2.24	0.35	66.27	37.23	77.93	6.75	-47.79	5.53
Textiles	-0.82	0.25	0.19	20.34	192.16	21.52	-10.75	101.8	3.54	-4.99	75.18	5.35
Wearing apparel	-1.69	6.35	0.25	47.49	-2.27	50.98	-25.04	-46.29	7.01	-41.17	-76.23	-20.82
Leather	-1.72	-2.74	0.23	-1.74	0	-0.3	-20.02	-37.57	26.19	-53.26	-81.13	-27
Chemical & plastic products	-0.52	-0.23	0.11	46.66	52.03	47.76	58.35	37.96	97.92	54.87	4.14	93.09
Labour intensive manufacturing	-0.79	2.93	0.12	73.11	23.77	117.09	92.75	10.46	213.41	83.51	-23.06	190.12
Capital intensive manufacturing	-0.97	-0.62	0.15	91.55	39.44	90.86	105.71	55.24	185.88	55.78	-12.26	109.24
Trade able services	-0.8	-1.19	0.07	-0.34	0.22	-0.09	40.91	24.3	58.73	19.16	-21.9	25.92
Non Trade able services	-0.96	-3.06	0.07	-0.32	0.74	-0.39	50.53	30.3	67.38	18.63	-30.33	21.01

Table-B.7 (Continued)

	Bangladesh-India FTA			Bangladesh-Sri Lanka FTA			Bangladesh-India-Sri Lanka tripartite FTA		
	India	Sri Lanka	Rest of S. Asia	India	Sri Lanka	Rest of S. Asia	India	Sri Lanka	Rest of S. Asia
Rice	28.95	-21.13	-21.09	0.01	-0.56	0.01	28.97	-21.56	-21.08
Grains	14.83	-2.76	-2.7	0.05	0.05	0.05	14.89	-2.71	-2.65
Oil & Oil seeds	502.04	-1.79	-1.76	-0.73	158.04	-0.74	497.72	153.59	-2.47
Vegetable & fruits	-1.05	0.3	0.27	0.01	86.4	0.01	-1.03	87.02	0.29
Fibers	148.42	-8.66	-8.6	0.01	675.26	0.01	148.48	608.25	-8.58
Raw milk & dairy products	560.66	-11.77	-11.8	-0.01	-0.7	-0.01	560.64	-12.36	-11.81
Fishing	0.07	1.51	1.26	-13.13	195.37	-13.23	-13.17	199.49	-12.25
Sugar	419.04	-27.97	-27.98	0	-0.35	0	419.07	-28.21	-27.98
Food products	361.81	-34.42	-34.46	-0.07	86.36	-0.07	361.65	22.27	-34.48
Beverages & tobacco	12.33	0.26	0.13	0.03	13.47	0.03	12.38	13.8	0.16
Other food	-1.47	0.14	0.07	0.01	-0.68	0.01	-1.45	-0.51	0.09
Extraction	1.12	2.01	1.91	-0.01	2.07	-0.01	1.11	4.16	1.9
Textiles	46.39	-4.04	-4.03	-0.02	270.72	-0.02	46.37	255.81	-4.05
Wearing apparel	121.12	-3.99	-3.9	0	-0.24	-0.01	121.14	-4.19	-3.9
Leather	-2.12	0.17	0.11	0.01	-0.73	0	-2.11	-0.52	0.12
Chemical & plastic products	72.19	-7.4	-7.41	-0.26	93.59	-0.26	71.79	79.32	-7.63
Labour intensive manufacturing	117.8	-6.41	-6.37	-0.01	69.25	-0.01	117.79	58.43	-6.38
Capital intensive manufacturing	155.38	-8.33	-8.35	-0.17	103.4	-0.18	154.99	86.52	-8.49
Trade able services	-0.47	0.57	0.54	0.02	-0.38	0.02	-0.44	0.21	0.56
Non Trade able services	-0.4	0.89	0.82	0.03	-0.44	0.03	-0.37	0.47	0.85