# Regional and Multilateral Trade Liberalisation and their Impacts on Bangladesh

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## ABSTRACT

WTO's Doha Development round places the needs and interests of the least-developed countries (LDCs) at the top of its agenda. According to World Bank (2002) estimates, when completed, the Doha Round is expected to lift 320 million out of absolute poverty as well as lift global income by $2.8 trillion by 2015. Bangladesh is one of the few countries that would be left from such bounty and actually stand to lose from such multilateral trade liberalisation. This research quantifies these losses along with their sources. For Bangladesh, the potential gain from free trade is more likely to be obtained in its regional trading arrangements with neighbouring countries, especially India. Trade liberalisation by India alone will bring most of the gains for Bangladesh at the same time providing maximum benefits to India's booming economy.

## INTRODUCTION

WTO's Doha round missed its January 2005 completion deadline and key disputes remain to be resolved in the upcoming sixth WTO ministerial conference in Hong Kong in December of this year. Prior to this current round, eight successive multilateral trade rounds under the auspices of GATT- predecessor to WTO, accentuated the north-south divide. Trade liberalisation agenda centred on manufactures trade, and not on liberalising agricultural trade in which the developing and the least developed countries (LDCs) were presumed to have comparative advantage. The eighth (Uruguay) round was a sincere attempt to rationalise agricultural trade but by this time many of the developing and some LDCs already made their progression to manufactures export position (see Shakur *et. al*, 2005). A decade after conclusion of the Uruguay Round (UR), many obstacles remain in key areas of agriculture and manufacturing that are important to Bangladesh. By trying to secure higher prices for food exporters that trade liberalisation would entail, the Uruguay Round (UR) and the on-going Doha Round is jeopardising welfare position of net food importing countries, many of whom are also least developed countries (LDCs) from Asia and Africa. During much of 1990s, Bangladesh made its quiet transformation from being an agri-food exporter to a manufactures exporter mainly through apparel or ready made garment (RMG) export. As such, trade reforms in manufactured products, especially in ready made garments (RMG) is currently more important to Bangladesh than commonly perceived agriculture sector.

Launched in November 2001 at the Fourth Ministerial Conference of WTO held in Doha, Qatar, the Doha Development Agenda (DDA) succeeded in providing the mandate on which negotiations on a wide range of subjects continue beyond its original completion deadline. Welfare gains to many developing and least developed countries (LDCs) in the current "development round' are being questioned as many of these countries would lose some of the lucrative and preferential trading arrangements they currently enjoy on a bilateral basis. Earlier research by Shakur *et al* (2004) estimated the impacts of global trade reforms initiated by WTO on global regions. In this paper we highlight and quantify the fallouts from some of these reforms as they apply to Bangladesh and India. Results reported in this research would better prepare Bangladesh trade negotiators in assessing their position on these reforms.

## BANGLADESH AND INDIA AS TRADING PARTNERS

India's importance in Bangladesh's external trade and economic welfare cannot be exaggerated. Except for the Bay of Bengal on its south, Bangladesh faces common land border with India on its east, west and north. India is also the undisputed superpower of South Asian region that is home to one quarter of the world's population. At a per capita income of under US$ 600, India is only marginally richer than Bangladesh.[1] Historically India has been inward-looking in its external trade relations with all countries. After getting their independence in 1947, politicians in India undertook a self-sufficiency development strategy when neighbouring East Asian countries were enjoying phenomenal growth by opening up themselves to global trade. Even at the regional level, trade between South Asian Association for Regional Cooperation (SAARC) nations remains extremely low when compared to ASEAN. As such, Bangladesh had to look beyond India or South Asia to greener pastures of East Asia, Europe and North America to realise her gains from trade. This is generally true of most developing economies that trades reluctantly with other developing economies and maintains high tariff and non-tariff barriers against each other. They preferred to focus on opening up access to industrial-country markets. However, India's fortunes are improving rapidly in last five years and expected boom in the coming years offer enormous potential trading opportunities for Bangladesh. This research shows that Bangladesh has a large stake in regional trade liberalisation, especially from India. At the same a large country like India can gain most by accelerating its unilateral tariff reduction plans.

Compared to Bangladesh, India is a "giant" economy in terms of GDP, population and land size, but less open in its external trade. "Openness" measured in terms of imports of goods and services as a percentage of GDP stood at 15.99% in 2004 for India, compared to 20.04% for Bangladesh for the same period (World Development Indicators 2005, World Bank). Bangladesh is classified as Net Food Importing (NFIM) as well as being a least developed country (LDC) compared to India which not NFIM and grouped as a developing country. As a result, Bangladesh is currently entitled to enjoy a few preferential trading arrangements with developed countries that

[1] According to World Development Indicators 2005 published by the World Bank, India's per capita GDP in current US dollar was $564 compared to Bangladesh that was $376. Both figures are for year 2004.

India does not (see UNCTAD 2005, p. 11). Unlike India, Bangladesh has a chronic current account deficit and need to consider effect on their trade balances from any proposed trade liberalisation scheme. Hence, we calculate the impact of proposed global and Indian trade reforms on Bangladesh's trade balance position. We also calculate the impacts on national output and producer prices from these reforms.

**EROSION OF PREFERENTIAL TRADING ARRANGEMENTS FOR LDCS**

There are no WTO definitions of "developed" or "developing" countries. Developing countries in the WTO are designated on the basis of self-selection although this is not necessarily automatically accepted in all WTO bodies. When it comes to its poorest members, WTO recognises 32 nations as least-developed countries (LDCs). Currently Bangladesh, Nepal and Maldives are the three South Asian countries listed in this group while Bhutan is undergoing accession process to the WTO. Using FAO and World Bank data Valdés and McCalla (1999) classified 148 countries as 'developing' of whom 63 were Low Income Countries (LIC) within which 48 were also net importers of food (NFIM). This group (NFIM amongst LICs) remain most vulnerable to global agricultural reforms and Bangladesh is one of these 48 countries. The text of the WTO July 2004 framework accord states "The specific concerns of preference dependent, commodity dependent countries and net food-importing developing countries shall be appropriately addressed, in the context of multilateral liberalization commitments undertaken in the Doha Round" (Doha Work Programme, Draft General Council Decision of July 2004, WT/GC/W/5351, 31 July 2004). At the same time, the prevailing view in WTO is that agricultural liberalisations would have to be taken in the interest of developing nations. This is too general as the situation of NFIM-LDCs like Bangladesh is very different from large developing countries like Brazil and India. It is common logic that a NFIM country cannot gain from food an increase in import prices. Table 3 shows changes in global import prices, including those for most food items imported by Bangladesh. But the most important reason for this potential loss from global trade liberalisation to Bangladesh is possibly explained by the potential erosion of preferential access in key markets of rich countries, as explained below.

A number of preferential trade initiatives had been launched at bilateral or regional level in the period immediately preceding the Doha Meeting. Of interest to

Bangladesh is the so-called "EBA (Everything But Arms) Regulation" adopted by EU General Affairs Council granting duty-free access to whole range of goods save arms and munitions to EU countries[2]. Launched in February 2001, currently 48 LDCs including Bangladesh enjoy benefits of EBA on a non-reciprocal basis. India is not eligible for EBA trade. Welfare gains from EBA alone were estimated in the range of US$300 million (Yu and Jensen, 2005) to US$400 million (Bora et al., 2002). The latter study was commissioned by UNCTAD. Bangladesh currently enjoys dual benefits from this important European market. Preferential access means her exports enter duty-free while other measures in support of high cost domestic producers (tariffs on other countries and domestic subsidies) means premium prices are received from export sales. The danger for Bangladesh from the current Doha round, as Yu and Jensen (2005, p.375) fears for all LDCs is that, "multilateral trade liberalisations resulting from WTO negotiations may reduce the attractiveness of these preferences on both fronts". This fear is confirmed by our estimates for Bangladesh which is one of the few countries that stand to lose from the Doha round.

**PROTECTIONIST POLICIES IN SOUTH ASIA**

As a region, South Asia is currently the most protective region in the world. Post-UR bound agricultural tariff averages are highest in South Asia (113 percent), followed by Africa (71 percent). Only non-EU Western Europe (104 percent) has higher bound agricultural tariff average than the global average (62 percent)[3]. At a regional level, the South Asian Association for Regional Cooperation (SAARC) was formed in 1985 by the seven South Asian countries of Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka. Unfortunately, intra-regional free trade among member nations has since been plagued by political differences and an extensive list of sensitive items.[4] Even as the agreement on the South Asian Free Trade Area (Safta), signed in January 2004, is due to come into force in January 2006, the inter-ministerial meeting held in Dhaka on June 23, 2005 actually decided to increase the total number of products for the Safta sensitive list to 1,322 from previous 1,306

[2] Regulation 416/2001 of 26 February 2001, EU Official Journal no. L 60 of 1.3.2001.

[3] See IATRC (2001, p.10-11), 'The Current WTO Agricultural Negotiations: Options for Progress', Commissioned Paper Number 18, The International Agricultural Trade Research Consortium, November.

[4] As on June 2005, list of sensitive items numbered 1,306 for Bangladesh, 927 for India, 1,157 for Pakistan, 1,065 for Sri Lanka, 1,315 for Nepal,132 for Bhutan' and 582 for the Maldives.

items. Trade negotiations generally stall when the agenda includes more 'sensitive sectors' or product categories. Moreover Rae, Chatterjee and Shakur (2001) quantified the welfare changes from sectoral trade liberalisation on the APEC members. Selective tariff removal without sensitive sectors was shown to create downstream bias in heavily protected sectors in Asia, worsening resource misallocation in these economies.

India itself has suffered enormously for its inward looking self-sufficiency policy in the past decades. For example, India's share of world exports reduced from 2.2 percent in 1948 to a meagre 0.4 per cent by the mid-1980s (Srinivasan, 2003). It is only in the last fifteen years that the region became caught up in the wave of globalisation in a complete U-turn from its post-independence policies. India's external sector liberalisation started in 1991 as part of much wider economy- wide reforms. Emphasis shifted from import substitution to export promotion. Tariff structure was simplified but tariff reduction is facing a few bumps. According to Singh (2005), the weighted average duty on all commodities declined from 72.5 per cent in 1991-92 to 24.6 per cent in 1996-97 but thereafter, it edged up again to 35.1 per cent in 2001-02. The reversal was due mainly to the imposition of various surcharges, predominantly in agriculture and consumer goods sectors. In manufacturing, the average manufactures tariff in India, for example, was a whopping 35% when the corresponding figure for developed countries is less than 5% (WTO 1998). India's share of exports and imports in world trade remain under 1 percent at present.

WTO concession for lower tariff cuts was intended for its least developed member like Bangladesh rather than all developing countries. WTO's July 2004 framework accord reaffirms that the Least-Developed Countries will have full access to all special and differential treatment provisions as stated in section 2.2, and is not required to undertake reduction commitments. Further, developed Members, and developing country Members in a position to do so, should provide duty-free and quota-free market access for products originating from least-developed countries. Accordingly, we have categorised the WTO member states as (i) developed, (ii) developing, and (iii) least developed economies in our simulation exercise. We then quantify the impacts of tariff reductions by developed as well as the developing

countries, but not LDCs, as would be required in actual declaration, whenever that happens.

## CGE MODEL AND DATA

Computable general equilibrium (CGE) models are most suitable to capture impacts from proposed trade and domestic reforms at national and regional levels. We use a slightly-modified version of the Global Trade Analysis Project (GTAP) model and apply it to global trade reform scenario. The GTAP model and database are fully documented and publicly available.[5]

Data is obtained from recently-released GTAP Version 6 database benchmarked to the year 2001. This database incorporates tariff preferences such as those of the EBA agreements affecting Bangladesh, and ad valorem equivalents of specific tariffs and tariff reductions as at 2001 associated with implementation of the UR. Agricultural export subsidies are based on country expenditure notifications to the WTO and agricultural domestic subsidies are classified as in the OECD's PSE measure and data are taken from that source. International trade data are sourced from the UN COMTRADE database, agricultural commodity balances and producer prices from the FAO, and input-output tables from national sources.

The GTAP Version 6 database covers 87 regions and 57 commodity sectors. For this study, we aggregate the database to 8 individual countries or regions, including Bangladesh and India which are the focus of this research. The remainder of the countries are then aggregated into as rest-of-the world (ROW). Commodities are aggregated into 21 sectors and selectively reported for Bangladesh only. At the sectoral level, we define a number of farm and processed food sectors to enrich the agricultural reform components of our liberalisation scenarios. A separate crop-fibre sector allow us analyse the impacts on the cotton and jute sectors, as well as their flow-on effects on clothing and apparel (TLA) sectors. The latter (TLA) sector is also modelled separately because of its importance to Bangladesh and India.

[5] See www.gtap.org for details.

**Scenario Design**

For our trade liberalisation experiments, we have designed scenarios based on our assessment of various agreements reached or most likely to be reached when the Doha round concludes. Some of these agreements were reached during July 2004 framework agreement. They incorporate changes within each of the major negotiation pillars – market access, export competition and domestic support.

**[TABLE 1 ABOUT HERE]**

**RESULTS AND INTERPRETATION**

Total welfare gains to selected regions from a comprehensive global reform, covering agriculture, manufacturing and TLA sectors are reported in column 2 of Table 2. Global gains from these reforms are calculated at US$ 40 billion. All gains are calculated as equivalent variation measures and measured in 2001 US dollars. The remainder columns in the table then goes on to decompose these regional welfare gains by type of reform and their origin from developed or developing regions. The last three columns in Table 2 capture the gain to selected regions from reforms originating in India only.

**[TABLE 2 ABOUT HERE]**

Table 2 shows that all of the selected regions gain from global reforms except Bangladesh and LDC_Africa. Gain to LDC_Asia, although positive, is insignificant at US$ 454 million. The largest beneficiaries are the large developing economies of China, ASEAN5 India within Asia region and the South American countries. This result would lend support to the view that global trade reforms as those currently being negotiated in WTO would actually go against the interest of the least developed countries and against the spirit of DDA.

An examination of Bangladesh's gains/losses shows that reforms in the TLA sector contributes to largest gains followed by tariff reductions in manufactured products by the developing countries. Whereas most industrialized countries have restricted imports of textiles and clothing since 1974 through bilateral quotas negotiated under the multi-fibre agreement (MFA), the phasing out of the quota regime in 2005 has left tariffs in the main importing countries persistently high compared to other industrials. In the case of leather and leather products the problem faced by Bangladesh is that most developed and some developing countries exhibit escalating tariffs for these products. As for India, two-third of India's gain comes from tariff reforms to manufacturing in developing world, including India and Sri Lanka. This shows manufacturing, including textile and apparel sector reforms are of most interest to South Asian countries, and more so for Bangladesh.

Developed and developing country tariff reductions in agricultural sector improve the welfare position of almost all global regions except Bangladesh and India. Reductions in export subsidies or domestic support payments to agriculture have negative implications to most of the Asian economies (South America gains), especially the LDCs and net food importing developing countries like Bangladesh.

Finally, the last three columns in Table 2 show the importance of India's tariff reforms on Bangladesh. Whereas Bangladesh would lose from market trade liberalisation initiatives from developed countries (except TLA tariff) and would lose overall, welfare would increase with respect to tariff reductions from India across all sectors. Bangladesh's largest gain would accrue from India's tariff reduction in manufactures. Figure 1 further illustrates Bangladesh's losses from global reforms and gains from tariff reforms in India. All of these suggest Bangladesh should press for tariff reductions from India alone and not make its case to other countries of the world. Bangladesh already enjoys lucrative market access arrangements with most of the developed nations and further concessions at global level would erode current gains from these arrangements.

**[Figure 1 ABOUT HERE]**

For India in particular, almost all of her gains from global reform (98%) can be had by bringing down her own tariffs (last 3 columns in Table 2). More than two-thirds of India's potential gain from global reforms can obtained if she was to reduce her own tariff on manufactured imports. Hence by undertaking tariff reforms, India would not just be helping Bangladesh, but helping herself the most.

Table 3 (Import price) shows why Bangladesh would lose from Global reforms and sources of loss. Bangladesh is a net importer of most food products. Rice, grain and oilseeds, dairy (milk powder) are major imports whose prices are expected to rise by biggest percentage points. Most of these price rises originate from developed country reforms in agriculture. Elimination of export subsidy and reduced domestic support payments are major contributors to import price increases. Developing country reforms in Agriculture would actually help Bangladesh by a downward pressure on import prices. Major export earner, apparel, actually suffers from a lower price hurting Bangladesh.

**[TABLE 3 ABOUT HERE]**

The rest of the tables (Tables 4-6) report changes to producer price, domestic output and trade balance in Bangladesh. Trade balance changes are measured in US$ million while rest of the changes are percentage changes. These tables are shown at the end of this report.

Ready-made garments (RMG) which are approximated by apparel data in this study is the single largest export earner for Bangladesh. This calls for special attention to its broader textile economy. Crop fibre (mainly jute) net exports would rise by US$ 8.74 million mainly due to developing country tariff reductions in agriculture and TLA (Table 6). Currently India's high agricultural tariff can be viewed as the main obstacle to export of jute from Bangladesh. Textile net imports would increase by US$ 24 million from global reforms, but is more than compensated by a US$ 45 million increase in net exports of apparel products. TLA tariff reductions in the developed countries are the main drivers of this improved trade balance, but India's tariff reduction would also provide a significant boost to apparel exports. Leather net exports would fall (US$ 23 million) as TLA tariff reductions in developed countries would open the sector to competitive bidding from other exporters and is a potential revenue loss to Bangladesh (US$ 27 million). This interpretation is supported in Table 5 by a 4.42% reduction in leather output, but an increase in crop fibre and apparel outputs by 1.39% and 1.34% respectively. Producer prices rise for all reported sectors, except for a negligible 0.1% drop in the transport and electronic sectors (Table 4). The biggest price increase is in the grain and oilseed sectors, as tariff and domestic subsidy reduction in the developed countries contribute to such increases. Bangladesh being a net importer of these products is adversely affected by trade liberalisation in developed countries.

## CONCLUSIONS

In November 2001 WTO launched the Doha Development Agenda (DDA) at its Fourth Ministerial Conference in Doha, Qatar. WTO is still waiting to celebrate its first success as the deadline to conclude the round passed without an agreement. Part of the reason for this failure is the late realisation that trade reforms that are currently being negotiated can potentially hurt the least developed countries (LDCs) for whom Doha round was intended to bring largest benefits. By examining potential fallouts to Bangladesh, one of the LDCs, such fears are substantiated. By using a computable general equilibrium model (GTAP) to quantify the impacts of plausible trade liberalisation scenarios, we show that Bangladesh is one of the few countries that would lose from the current multilateral trade initiative. We use the latest version 6

database of GTAP that allows us to disaggregate regional data to individual country level.[6]

For Bangladesh, the key objective should be to persuade India to open its vast markets where most of Bangladesh's trade gains would come from. At the same time, we go on to show that India herself would be better served by implementing tariff reductions on a unilateral basis rather than wait for other global players to take the lead. Earlier, Panagariya (2003) also concluded that countries in the South Asia region are better advised to proceed along non-discriminatory lines in achieving further liberalisation.

In July 2004, as a show of goodwill to developing countries who are presumed to be food exporters, the European Union agreed to eliminate agricultural export subsidies subject to some conditions. While this will remove an important trade distortion and enhance global welfare, the effect is negative on Bangladesh that is classified as a net food importing nation. Bangladesh is also classified as a LDC that currently enables her to enjoy preferential access in lucrative European markets under EBA initiative. Multilateral trade liberalisation on a most favoured nation (MFN) basis would mean these advantages would be eroded.

Over last 15 years, Bangladesh has quietly shifted her main export earnings from agriculture to manufactured products due mainly to apparel exports. While the abolition of MFA will create opportunities for many countries, it will also expose Bangladesh to intense competition from other countries, especially India and China. During MFA phase out period, Pigato et al. (1997) estimated that India's gain from the abolition of MFA, calculated of the year 2005, would be about 0.37 per cent of its GDP. For Bangladesh, the effect is very different as MFA actually favoured Bangladesh's garment export to lucrative markets in Europe and North America by means of preferential deals.

On the other hand, phasing out of the quota regime in 2005 has left apparel tariffs in the main importing countries persistently high compared to other industrials. Bangladesh would gain significantly from multilateral tariff reduction in textile,

[6] Prior to version 5, GTAP database aggregated entire South Asia, except India, into one region. Isolating impacts on Bangladesh would not be possible in earlier versions of GTA data.

leather and apparel (TLA), including favourable impacts on their trade balance and producer price. We believe trade negotiators in Bangladesh and India ought to take notice of the results of this research and realise both countries can gain, albeit Bangladesh's gains would be relatively larger, by unilaterally opening their own markets and not count on other countries to liberalise their trade on a MFN basis. Bangladesh can potentially lose when the Doha round concludes, but gain by persuading India to open her vast markets.

**[TABLE 4 ABOUT HERE]**

**[TABLE 5 ABOUT HERE]**

**[TABLE 6 ABOUT HERE]**

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**TABLES & FIGURES**

**Table 1**: Tariff Reductions for Scenario Simulation

| | |
|---|---|
| ***Developed countries*** | |
| Agricultural commodities | If $t_o \geq 55\%$, Swiss formula: a=100<br>If $5\% \leq t_o < 55\%$, $t_1 = t_o * 0.64$<br>If $t_o < 5\%$, $t_1 = 0\%$ |
| Non-agricultural commodities | Swiss formula: a=16 |
| ***Developing countries*** | |
| Agricultural commodities | If $t_o \geq 100\%$ $t_1 = t_0 * 0.7$<br>If $0 < t_o < 100\%$, $t_1 = t_0 * 0.8$ |
| Non-agricultural commodities | Swiss formula: a=50 |
| ***Least developed countries*** | No changes to agricultural or non-agricultural commodities |

Note: $t_0$ is the base tariff; $t_1$ is the post-reform tariff.

**Table 2:** Regional Welfare Changes from Global and Indian Reforms (Equivalent Variation)

| Scen#1 | | DEVD | DEVD | DEVD | DEVG * | DEVG | DEVG | DEVD | DEVD | India | India | India |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EV | total (Sim) | tariffs agr | tariffs TLA | tariffs manuf | tariffs agr | tariffs TLA | tariffs manuf | exp subs | domestic support | tariffs agr | tariffs TLA | tariffs manuf |
| China | 3564.07 | 125.57 | 1738.83 | 29.18 | 830.48 | 273.52 | 775.06 | -91.06 | -117.51 | -6.83 | 1.36 | 27.03 |
| ASEAN5 | 1783.18 | 455.43 | 598.27 | 78.19 | 150.7 | -50.51 | 627.29 | -73.37 | -2.83 | 51.26 | 6.13 | 53.11 |
| LDC_Asia | 454.24 | 123.88 | 326.91 | 1.49 | 29.08 | -71.94 | 68.13 | -28.41 | 5.09 | 7.18 | 0.31 | 16.86 |
| **BGD** | **-23.09** | **-12.87** | **15.53** | **-5.28** | **3.27** | **-21.57** | **11.83** | **-9.35** | **-4.64** | **2.34** | **0.27** | **10.45** |
| LDC_Africa | -207.55 | 27.42 | -17.87 | -11.11 | 16.28 | 8.36 | 0.13 | -232.14 | 1.38 | 5.79 | 4 | 34.59 |
| India | 919.98 | -19.47 | 173.12 | -41.81 | 261.15 | -92.25 | 625.18 | 4.58 | 9.47 | 263.24 | 19.44 | 621.53 |
| SL | 90.92 | 8.93 | 72.12 | -1.15 | 9.01 | -8.59 | 15.16 | -2.72 | -1.85 | 0.83 | 0.59 | 10.45 |
| Sth_America | 2103.62 | 1537.53 | 313.91 | 114.07 | 121.41 | -122.91 | -135.06 | 46.05 | 228.64 | 12.37 | -0.32 | -21.66 |
| Total | 8685.37 | | | | | | | | | | | |
| Regions | | | | | | | | | | | | |
| ROW | 31322.81 | | | | | | | | | | | |
| Global | 40008.18 | | | | | | | | | | | |

* DEVG includes India and SL

**Table 3:** Changes in Global Import Price Index: Decomposition by type and origin of reform EV in US mill.

| piwcom | total (Sim) | DEVD tariffs agr | DEVD tariffs TLA | DEVD tariffs manuf | DEVG tariffs agr | DEVG tariffs TLA | DEVG tariffs manuf | DEVD exp subs | DEVD domestic support |
|---|---|---|---|---|---|---|---|---|---|
| Rice | 3.85 | 2.49 | 0.15 | 0.01 | 0 | -0.02 | 0.02 | 0.2 | 1.01 |
| grain_oilsd | 3.11 | 0.56 | 0.07 | -0.04 | 0.1 | -0.04 | -0.07 | 0.74 | 1.8 |
| hort | 0.62 | 0.42 | 0.07 | -0.06 | -0.05 | -0.03 | -0.02 | 0.24 | 0.05 |
| crop_fibre | 1.52 | 0.45 | 0.1 | -0.03 | -0.04 | -0.06 | -0.09 | 0.25 | 0.94 |
| oth_crops | 0.74 | 0.52 | 0.09 | -0.06 | -0.08 | -0.05 | -0.02 | 0.12 | 0.22 |
| animal_prod | 1.79 | 0.25 | 0.07 | -0.05 | -0.1 | -0.02 | -0.02 | 0.2 | 1.46 |
| Milk | 0.58 | 0.16 | 0.08 | -0.05 | -0.24 | -0.1 | -0.08 | 0.39 | 0.42 |
| nat_res | -0.05 | 0.01 | 0.02 | -0.01 | 0 | 0 | -0.1 | 0 | 0.05 |
| meat | 1.92 | 0.15 | 0.01 | -0.06 | -0.03 | -0.03 | -0.03 | 1.17 | 0.74 |
| dairy | 3.83 | 0.04 | 0 | -0.1 | -0.01 | -0.03 | 0 | 3.61 | 0.33 |
| sugar | 1.42 | 0.45 | 0.08 | -0.03 | -0.06 | -0.07 | -0.08 | 0.93 | 0.2 |
| oth_procfood | 0.26 | -0.05 | 0.05 | -0.05 | -0.17 | -0.03 | -0.03 | 0.36 | 0.19 |
| textile | -0.12 | 0.01 | 0.09 | -0.01 | -0.06 | -0.17 | -0.05 | 0 | 0.08 |
| apparel | -0.2 | 0.03 | 0.22 | -0.01 | -0.04 | -0.42 | -0.06 | 0.01 | 0.08 |
| leather | 0.1 | 0.06 | 0.17 | -0.03 | -0.09 | -0.1 | -0.06 | 0.03 | 0.12 |
| natres_prods | -0.14 | -0.03 | 0.01 | -0.05 | 0 | -0.01 | -0.06 | -0.03 | 0.04 |
| oth_mnfcs | -0.16 | -0.06 | 0.02 | -0.08 | 0.01 | 0 | -0.05 | -0.03 | 0.04 |
| metals | -0.08 | 0 | 0.02 | -0.05 | 0 | -0.01 | -0.07 | -0.01 | 0.05 |
| transprt | -0.24 | -0.06 | -0.03 | -0.12 | 0.01 | 0 | -0.03 | -0.04 | 0.04 |
| elctronic | -0.02 | -0.05 | 0.06 | -0.03 | 0.02 | 0.02 | -0.07 | -0.02 | 0.05 |
| Svces | -0.04 | -0.03 | 0.02 | -0.04 | 0 | -0.01 | 0 | -0.03 | 0.04 |

**Table 4:** Effect on Bangladesh's Producer Price

| Product Category | total | DEVD tariffs agr | DEVD tariffs TLA | DEVD tariffs manuf | DEVG * tariffs agr | DEVG tariffs TLA | DEVG tariffs manuf | DEVD exp subs | DEVD domestic support | India tariffs agr | India tariffs TLA | India tariffs manuf |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rice | 0.09 | 0.03 | 0.16 | -0.04 | -0.05 | -0.22 | -0.05 | 0.1 | 0.17 | 0.01 | -0.01 | -0.01 |
| grain_oilsd | 0.38 | 0.14 | 0.19 | -0.04 | -0.08 | -0.2 | -0.07 | 0.16 | 0.29 | -0.01 | -0.01 | -0.03 |
| hort | 0.12 | 0.04 | 0.19 | -0.05 | -0.06 | -0.24 | -0.04 | 0.11 | 0.16 | 0 | -0.01 | 0 |
| crop_fibre | 0.35 | 0.1 | 0.32 | -0.03 | -0.01 | -0.29 | -0.05 | 0.09 | 0.21 | 0.05 | -0.01 | 0.01 |
| oth_crops | 0.18 | 0.09 | 0.19 | -0.05 | -0.06 | -0.23 | -0.04 | 0.11 | 0.17 | 0.01 | -0.01 | 0 |
| animal_prod | 0.11 | 0.07 | 0.13 | -0.04 | -0.06 | -0.22 | -0.05 | 0.1 | 0.18 | 0 | -0.01 | -0.01 |
| Milk | 0.07 | 0.06 | 0.13 | -0.04 | -0.06 | -0.22 | -0.05 | 0.1 | 0.16 | 0.01 | -0.01 | -0.01 |
| nat_res | -0.17 | -0.05 | 0.24 | -0.05 | -0.02 | -0.21 | -0.12 | -0.01 | 0.05 | 0 | 0 | -0.1 |
| meat | 0.48 | 0.2 | 0.1 | -0.02 | -0.09 | -0.06 | 0 | 0.21 | 0.14 | 0.01 | 0 | 0 |
| dairy | 0.07 | 0.05 | 0.25 | -0.04 | -0.05 | -0.21 | -0.09 | 0.06 | 0.11 | 0 | -0.01 | -0.05 |
| sugar | 0.01 | 0.02 | 0.23 | -0.05 | -0.04 | -0.21 | -0.09 | 0.04 | 0.1 | 0 | -0.01 | -0.05 |
| oth_procfood | 0.1 | 0.04 | 0.22 | -0.05 | -0.05 | -0.23 | -0.07 | 0.08 | 0.16 | 0 | -0.01 | -0.03 |
| textile | 0.07 | 0.02 | 0.3 | -0.04 | -0.04 | -0.24 | -0.08 | 0.03 | 0.12 | 0 | -0.01 | -0.04 |
| apparel | 0.05 | 0.01 | 0.31 | -0.03 | -0.05 | -0.23 | -0.08 | 0.02 | 0.1 | 0 | -0.01 | -0.05 |
| leather | 0.02 | 0.02 | 0.2 | -0.04 | -0.05 | -0.21 | -0.08 | 0.05 | 0.12 | 0 | -0.01 | -0.04 |
| natres_prods | -0.11 | -0.03 | 0.26 | -0.04 | -0.02 | -0.2 | -0.12 | 0 | 0.06 | 0 | 0 | -0.08 |
| oth_mnfcs | -0.09 | -0.03 | 0.29 | -0.05 | -0.03 | -0.23 | -0.1 | 0 | 0.06 | 0 | 0 | -0.06 |
| metals | -0.09 | -0.03 | 0.27 | -0.04 | -0.02 | -0.2 | -0.13 | 0 | 0.06 | 0 | 0 | -0.09 |
| transprt | -0.1 | -0.04 | 0.28 | -0.05 | -0.02 | -0.21 | -0.11 | 0 | 0.05 | 0 | 0 | -0.07 |
| elctronic | -0.1 | -0.03 | 0.29 | -0.05 | -0.03 | -0.22 | -0.1 | 0 | 0.06 | 0 | 0 | -0.06 |
| Svces | -0.08 | -0.03 | 0.31 | -0.05 | -0.03 | -0.26 | -0.08 | 0 | 0.06 | 0 | 0 | -0.04 |
| CGDS | -0.09 | -0.03 | 0.29 | -0.05 | -0.03 | -0.22 | -0.1 | 0 | 0.06 | 0 | 0 | -0.06 |

* DEVG includes India

**Table 5:** Effect on Bangladesh's Domestic Output

| qo[*BGD] | total | DEVD tariffs agr | DEVD tariffs TLA | DEVD tariffs manuf | DEVG* tariffs agr | DEVG tariffs TLA | DEVG tariffs manuf | DEVD exp subs | DEVD domestic support | India tariffs agr | India tariffs TLA | India tariffs manuf |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rice | -0.1 | -0.07 | -0.09 | 0 | 0 | 0.03 | 0.01 | 0.03 | 0 | 0 | 0 | 0.01 |
| grain_oilsd | 1.79 | 0.61 | -0.11 | -0.01 | -0.21 | 0.14 | -0.04 | 0.53 | 0.87 | -0.09 | -0.01 | -0.04 |
| hort | 0.03 | 0.01 | 0 | -0.01 | -0.05 | 0.01 | 0 | 0.05 | 0 | -0.03 | 0 | 0 |
| crop_fibre | 1.39 | 0.35 | 0.61 | 0.1 | 0.22 | -0.26 | 0.02 | 0.05 | 0.29 | 0.2 | -0.03 | 0.09 |
| oth_crops | 0.24 | 0.18 | -0.01 | -0.01 | -0.05 | 0.04 | 0.01 | 0.07 | 0.02 | -0.01 | 0 | 0 |
| animal_prod | -0.41 | 0 | -0.51 | 0 | -0.03 | 0.06 | 0.04 | -0.01 | 0.02 | 0 | 0 | 0.04 |
| Milk | -0.49 | 0.02 | -0.65 | 0.01 | -0.04 | 0.09 | 0.04 | 0 | 0.03 | 0 | 0 | 0.04 |
| nat_res | -0.08 | -0.01 | -0.07 | 0 | 0.01 | 0.05 | -0.05 | -0.01 | -0.01 | 0 | 0 | -0.06 |
| meat | 6.85 | 2 | -0.43 | -0.45 | 0.4 | 0.12 | -0.02 | -0.21 | 5.44 | 0.58 | 0.01 | 0.06 |
| dairy | 5.19 | 0.97 | -0.29 | -0.04 | 0 | 0.21 | 0.05 | 4.09 | 0.19 | -0.03 | 0 | 0.04 |
| sugar | 0.36 | 0.15 | -0.01 | 0 | -0.03 | 0 | 0.01 | 0.23 | 0.02 | -0.01 | 0 | 0.01 |
| oth_procfood | -0.06 | -0.09 | -0.04 | 0 | 0 | 0.02 | 0.01 | 0.03 | 0 | 0 | 0 | 0.01 |
| textile | 0.13 | 0.05 | 0.68 | 0.11 | -0.08 | -0.42 | 0.04 | -0.1 | -0.14 | -0.04 | -0.01 | 0.04 |
| apparel | 1.34 | 0.11 | 1.98 | 0.11 | 0.09 | -0.85 | 0.12 | -0.08 | -0.14 | 0 | 0.02 | 0.19 |
| leather | -4.42 | 0.17 | -5.34 | 0.11 | -0.32 | 0.92 | 0.21 | -0.14 | -0.01 | -0.01 | 0.01 | 0.2 |
| natres_prods | 0.17 | 0.06 | -0.39 | 0.07 | 0.02 | 0.34 | 0.06 | 0.01 | 0.01 | -0.01 | 0 | -0.22 |
| oth_mnfcs | -0.2 | -0.07 | -0.54 | 0.1 | 0.08 | 0.65 | -0.36 | -0.04 | -0.02 | -0.01 | 0 | -0.33 |
| metals | -0.06 | 0.01 | -0.21 | 0.05 | 0.03 | 0.29 | -0.26 | 0.02 | 0.01 | -0.01 | 0 | -0.25 |
| transprt | -0.32 | -0.06 | -0.39 | -0.04 | 0.05 | 0.42 | -0.27 | -0.03 | 0.01 | -0.01 | 0 | -0.17 |
| elctronic | -0.06 | 0.04 | -0.78 | 0.06 | 0.17 | 1.1 | -0.59 | -0.03 | -0.03 | 0 | 0.01 | -0.09 |
| Svces | -0.04 | -0.01 | -0.03 | -0.02 | 0 | 0.01 | 0 | -0.01 | 0 | 0 | 0 | 0.01 |
| CGDS | -0.19 | -0.02 | 0.07 | -0.1 | -0.02 | -0.08 | -0.06 | 0 | 0.03 | 0 | 0 | 0.03 |

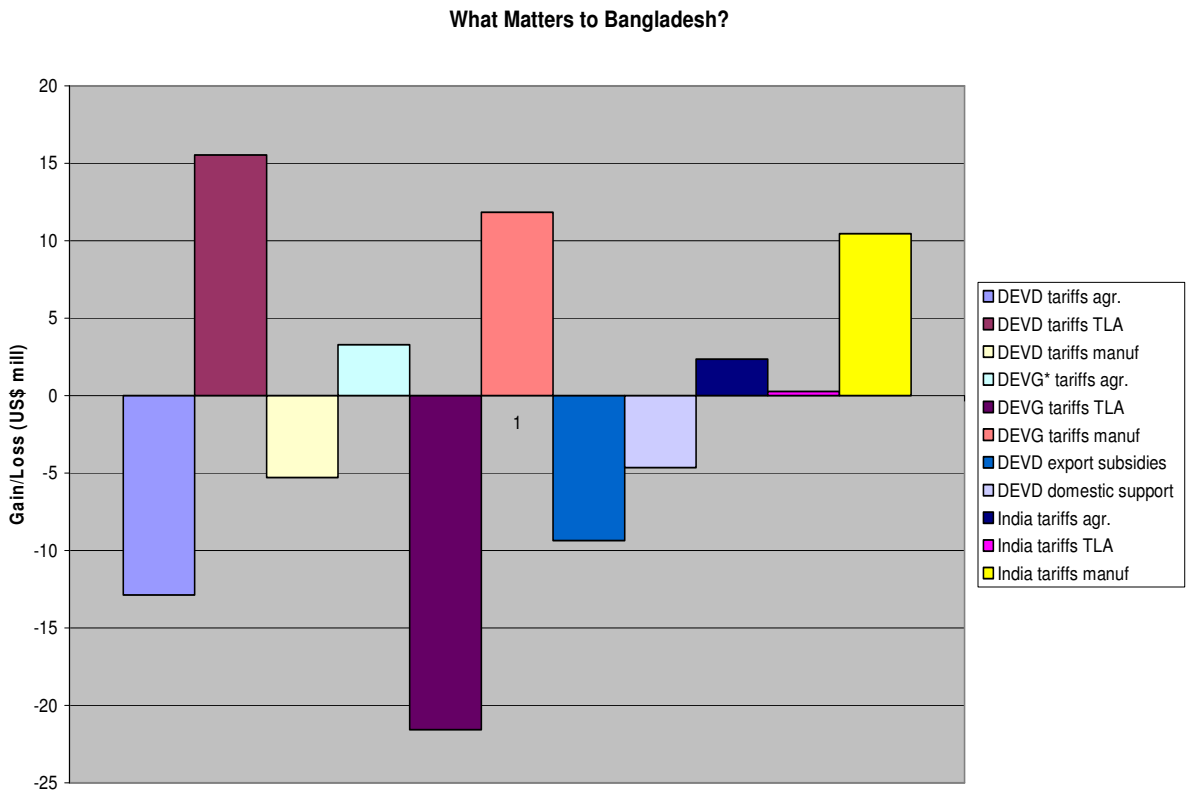
* DEVG includes India

**Table 6:** Effect on Bangladesh's External Trade Balance

| Product Category | Total Change ($mill) | DEVD tariffs agr | DEVD tariffs TLA | DEVD tariffs manuf | DEVG * tariffs agr | DEVG tariffs TLA | DEVG tariffs manuf | DEVD exp subs | DEVD domestic support | India tariffs agr | India tariffs TLA | India tariffs manuf |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rice | 0.26 | 0.2 | 0.01 | 0 | -0.01 | 0.01 | 0 | 0.01 | 0.03 | -0.01 | 0 | 0 |
| grain_oilsd | 2.28 | 1 | -0.37 | 0.15 | -0.06 | 0.82 | 0.11 | 0.12 | 0.51 | -0.09 | 0 | -0.03 |
| hort | 0.06 | -0.15 | -0.47 | 0.06 | -0.19 | 0.63 | 0.02 | 0.34 | -0.19 | -0.11 | 0 | -0.05 |
| crop_fibre | 8.74 | 1.85 | -2.61 | -0.31 | 3.52 | 2.75 | 0 | 1 | 2.54 | 2.53 | -0.18 | 0.23 |
| oth_crops | 2.17 | 1.6 | 0.02 | -0.03 | -0.38 | 0.52 | 0.03 | 0.2 | 0.2 | -0.04 | 0 | -0.03 |
| animal_prod | 0.08 | -0.15 | 0 | 0 | -0.01 | 0.1 | 0.01 | 0.04 | 0.1 | 0.01 | 0 | 0 |
| nat_res | -2.54 | 0.43 | -1.31 | 0.33 | 0.15 | 1.33 | -3.47 | 0.11 | -0.11 | -0.01 | 0.01 | -2.7 |
| meat | 0.16 | -0.02 | -0.04 | -0.01 | 0.07 | 0.04 | -0.02 | -0.06 | 0.21 | 0.02 | 0 | -0.01 |
| dairy | 4.57 | 0.83 | -0.48 | 0.03 | 0.04 | 0.41 | 0.1 | 3.56 | 0.08 | -0.03 | 0 | 0.05 |
| sugar | 0.76 | 0.45 | -0.22 | 0.06 | -0.11 | 0.26 | 0.01 | 0.29 | 0.02 | -0.06 | -0.01 | -0.01 |
| oth_procfood | -9.15 | -11.21 | -3.11 | 0.12 | 0.95 | 3.75 | 0.26 | 0.15 | -0.07 | -0.17 | 0.09 | 0.2 |
| textile | -24.06 | 0.07 | -11.45 | 0.99 | -4.62 | -2.74 | -1.88 | -1.95 | -2.48 | -1.72 | -0.64 | -2.28 |
| apparel | 44.7 | 4.03 | 72.6 | 2.74 | 1.4 | -33.83 | 1.18 | -1.79 | -1.64 | -0.19 | 0.31 | 4.64 |
| leather | -22.81 | 0.97 | -26.91 | 0.4 | -1.82 | 3.9 | 0.69 | -0.5 | 0.46 | -0.05 | 0.03 | 0.84 |
| natres_prods | 10.21 | 1.42 | -11.93 | 2.44 | 1.12 | 10.3 | 8 | -0.06 | -1.08 | -0.05 | 0.09 | -2.98 |
| oth_mnfcs | 0.55 | -0.25 | -7.19 | 1.7 | 0.91 | 6.31 | 0.44 | -0.53 | -0.84 | 0.01 | 0.05 | 0.02 |
| metals | 0.98 | 0.43 | -2.81 | 0.79 | 0.3 | 2.68 | -0.27 | 0.15 | -0.3 | -0.06 | -0.01 | -0.76 |
| transprt | 0.74 | 0.26 | -2.6 | 0.32 | 0.37 | 2.33 | 0.63 | -0.11 | -0.46 | 0 | 0.03 | 0.17 |
| elctronic | 1.01 | 0.06 | -0.99 | 0.22 | 0.1 | 0.58 | 1.27 | -0.05 | -0.2 | 0.03 | 0.02 | 0.7 |
| Svces | 2.82 | 0.91 | -12.54 | 1.02 | 1.12 | 10.35 | 2.77 | -0.55 | -0.28 | 0.02 | 0.16 | 1.78 |

* DEVG includes India

**Figure 1**


What Matters to Bangladesh?
Gain/Loss (US$ mill)
20
15
10
5
0
-5
-10
-15
-20
-25
1
DEVD tariffs agr.
DEVD tariffs TLA
DEVD tariffs manuf
DEVG* tariffs agr.
DEVG tariffs TLA
DEVG tariffs manuf
DEVD export subsidies
DEVD domestic support
India tariffs agr.
India tariffs TLA
India tariffs manuf