

# Political Economy of Trade Liberalisation in Bangladesh

*Impact of Trade Liberalisation on Bangladesh Agriculture*



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## *List of Abbreviations and Acronyms*

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ASI	Annual Survey of Industries
AMS	Aggregate Measure of Support
AoA	Agreement on Agriculture
BADC	Bangladesh Agricultural Development Corporation
BBS	Bangladesh Bureau of Statistics
BDV	Brussels Definition of Value
BOO	Build-Operate-Own
BOT	Build-Operate-Transfer
BRR	Bangladesh Rice Research Institute
CPD	Centre for Policy Dialogue
DAE	Directorate of Agricultural Extension
DFID	Department for International Development
DPEZ	Dhaka Export Processing Zone
DTW	Deep Tube Wells
ECGS	Export Credit Guarantee Scheme
EPZ	Export Processing Zones
FDI	Foreign Direct Investment
FGD	Focus Group Discussion
FSRP	Financial Sector Reform Programme
GDP	Gross Domestic Product
HS	Harmonised Systems
HYVs	High Yielding Varieties
ICT	Information and Communication Technology
IFDC	International Centre for Soil Fertility and Agricultural Development
IMF	International Monetary Fund



IPO	Import Policy Order
IPRs	Intellectual Property Rights
IRRI	International Rice Research Institute
ISAC	Industrial Sector Adjustment Credit
LDCs	Least Developed Countries
MoA	Ministry of Agriculture
NIP	New Industrial Policy
NRPs	Nominal Rates of Protection
NTBs	Non-tariff Barriers
OMS	Open Market Sales
OPEC	Organisation of Petroleum Exporting Countries
PETARRA	Poverty Elimination through Rice Research Assistance
PSI	Pre-Shipment Inspection
QRs	Quantitative Restrictions
REER	Real Effective Exchange Rate
RIP	Revised Industrial Policy
RMG	Readymade Garments
SAP	Structural Adjustment Programme
SPS	Sanitary and Phyto-sanitary
STW	Shallow Tube Wells
TIP	Trade and Industrial Policy
TRIPS	Trade Related Aspects of Intellectual Property Rights
VAT	Value Added Tax
WES	Wage Earners Scheme
WTO	World Trade Organisation
XPB	Export Performance Benefit
XPL	Export Performance Licensing

# *Study Team*

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## *Introduction*

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In the globalised world of today, trade liberalisation is often promoted for economic growth. But the link between economic growth and liberalisation of trade has been the subject of a lot of controversies in recent time. In fact, the growth argument for trade liberalisation has been challenged in many ways, albeit the proponents of liberalisation have their strong arguments in its favour as well.

The evolution of thoughts regarding international trade from protectionisms to liberalisation is actually the journey from Mercantilism to the so-called doctrine of free-trade. From the 16<sup>th</sup> to 18<sup>th</sup> century, Mercantilism in Europe advocated for high level of protection for domestic industries arguing that countries should simultaneously encourage exports and discourage imports. The Mercantilists viewed trade as a zero-sum game where if one country gains other would be the loser in bilateral exchanges. But Mercantilism was challenged and debated much and was considered as one of the discredited doctrines on international trade horizon. In this backdrop, in 1776, Adam Smith came up with the theory of ‘absolute advantage’, which was one of the foremost strides in favour of unrestricted free trade economy.

Later, David Ricardo, an English economist, pioneered the theory of ‘comparative advantage’ which was even stronger advocate of free trade. Dismissing the idea of zero-sum game, Ricardo introduced a positive-sum game in international trading which defined trade as a tool for mutual benefits for the countries engaged in trading. Heckscher-Ohlin theory (a theory refined by Swedish economists Eli Heckscher and Bertil Ohlin) also enhanced the idea of free trade. It differentiated the idea of ‘comparative advantage’ sketched by Ricardo by pointing national factors endowment (land, labour, and capital) for getting comparative advantage rather than Ricardo’s labour productivity factor. However, all of these theories and ideas are centered on defining the benefits of trade liberalisation or free trade in international trade and broadly ‘protectionism’.

But trade in itself is not a panacea and is contingent on host of issue before it can make a difference in development outcomes. Also, the terms trade liberalisation, development, globalisation and its instrumentality (policy choices) are deeply contested and encompass both economic and political dimensions. These terms are the anchors of a complex political economic process within which the interests of various actors may not necessarily find converge. For instance, the requirements of greater trade liberalisation may not necessarily have a positive outcome for livelihood choices, thereby constraining

the basket of policy choices available. Herein lies the rationale for a political economy analysis of mainstreaming trade policy in the national development strategy.

## 1.1 Objectives of the Study

Broadly speaking, this study tries to contribute to the process of advocating for mainstreaming trade policy in the national development strategy of Bangladesh. While there are two different but interlinked aspects of trade liberalisation – economics and political economy – this paper focuses on the political economy of trade liberalisation in Bangladesh. In this context, the following are the specific objectives of this paper:

- to analyse the political economy of trade liberalisation in Bangladesh; and
- to examine the impact of trade liberalisation on poverty, growth and livelihood of poor people in Bangladesh.

## 1.2 Focus of the Paper

Although trade liberalisation is expected to have significant impact on all sectors of the economy, the focus of this paper has been kept limited to agriculture. And given the fact that agriculture itself is a vast sector and encompasses a lot of sub-sectors, two particular cases have been picked up for zooming in the impact of trade liberalisation on the ground. The sugarcane farming and poultry farming, which are considered to be heavily impacted by the trade liberalisation policies adopted over time, are the two cases addressed in-depth in this paper. Of course, these two cases have been analysed in the overall context of agriculture and the impact of trade liberalisation on it in Bangladesh.

## 1.3 Methodology

The study has been conducted in two brief phases. In the first phase, a background paper has been prepared using an exhaustive review of the literature available on the impact of trade liberalisation on agriculture in Bangladesh. Based on the background paper and the objective of the study, the second phase has undertaken qualitative investigation in two locations of the country.

### 1.3.1 Study Locations

To address the two particular issues (sub-sectors) mentioned above, two particular locations have been purposively selected for field investigation: one in the western region of the country known for sugarcane cultivation and the other in the central region known for poultry farming. Within each of these two locations, two communities have been selected on the basis of different degrees of concentration of these two types

Table 1: Sites of Field Investigation			
District	Upazila	Village	Basis for selection
Kustia	Veramara	Khemirdiar	High intensity of sugarcane cultivation
		Bhabanipur	Relatively low density of sugarcane cultivation
Dhaka	Savar	Paandhua	Relatively more agricultural with high density of poultry farming
		Carigram	Relatively less agricultural with high density of poultry farming

of activities. Thus the four communities selected for field investigation are presented in Table 1.

### **1.3.2 Tools Used**

The qualitative tools that have been applied to collect data from the selected study sites are explained in the sections below.

#### ***Crop-mapping***

This tool has been used to capture the current status of different crops being produced in the villages and how these crop-patterns have changed over time. The discussion around it has tried to relate to the changes with the evolving policy scenario focusing on trade liberalisation. To capture the changes effectively, crop-mapping exercise has been done for different points of time marking major shifts in agriculture over the last three decades.

#### ***Crop-calendar***

Using this crop-calendar the changes in cropping practices and timings in each of the villages have been analysed in a participatory way. The researchers have tried to relate the discussion on changes with the trade liberalisation and related policies of the country. Again, a calendar has been made for different times points of time over the last three decades to compare the situations over time.

#### ***Time-line***

This common tool has been used in this case to outline the major shifts in agriculture in each of the study communities and to link the implications of trade liberalisation with those shifts.

#### ***Observation***

Apart from the structured tools, unstructured observation has been used as well to capture the dynamics of agriculture and to understand how these dynamics can be related to trade liberalisation in the country.

#### ***Case studies***

A few cases studies have been carried out in the study villages to get deeper understanding on how the farmers themselves are affected by the policies of trade liberalisation.

#### ***Key informant interviews***

The local key informants have been interviewed to supplement the above tools. The interviews have provided with a lot of explanations and supported with links to trade liberalisation issues. The above tools have been used in complementarities to capture the same stories from different angles and to validate the findings of one tool with other. The crop-mapping, crop-calendar and time-line have been done in the form of Focus Group Discussion (FGD).

### **1.3.3 Limitations**

This paper should be viewed considering a number of limitations. First, questionnaire survey on a sizeable sample was beyond the scope of this study. That is why precise quantitative data cannot be presented in favour of the arguments made. However, the qualitative data used in this study are illustrative and should be able to tell the stories effectively. Second, the field investigation has been done only in four selected communities (broadly two areas). Therefore, the findings presented in this paper cannot be generalised. Rather, these should be considered as illustrative case studies on particular areas and issues.

## *From Protection to Liberalisation: An Overview of Trade Liberalisation Policies since the Independence*

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Immediately after the independence, Bangladesh was highly influenced by the political and economic philosophy of the socialist block of that time. The country immediately went for a huge drive to nationalise about 92 percent of its total fixed assets abandoned by the Pakistani Entrepreneurs (Rahman, 1994). Since then, Bangladesh economy was extremely protected and inward looking until the end of the 1970s. Imports were highly restricted in the form of rigid tariff line. In 1978, for example, there were 36 percent tariff rates ranging from zero to 400 percent. The reason for pursuing such a restrictive trade policy was to protect domestic industries and to raise revenue. This, however, resulted in an expansion of inefficient industries and misallocation of resources with adverse consequences on the export sector and the economy (CPD, 1997).

### **2.1 The New Development Philosophy**

During the early 1990s, Bangladesh adopted very quick reforms in financial sectors and was one of the fastest amongst the reforming countries of the world. In the second Five Year Plan 1980-85 (Government of Bangladesh, 1980), the Government of Bangladesh took initiatives to reduce the export-import gap and to follow a policy of import substitution with efforts towards promoting export growth. Third Five Year Plan 1985-90 (Government of Bangladesh 1985), consequently, emphasised on the adoption of policies aimed at stimulating export through the adoption of various promotional and development measures, i.e. providing concessional credit to exporters and improving direct incentive schemes like Export Performance Benefit (XPB) and the duty draw-back scheme etc.

The Fourth Five Year Plan 1990-95 (Government of Bangladesh, 1990) and Fifth Five Year Plan 1997-02 (Government of Bangladesh, 1998) adopted more outward looking policies through a measure like Structural Adjustment Programme (SAP) and introducing a trade neutral policy environment for attaining the goal of export-led growth. In the Fourth Five Year Plan, SAP covered the issues of accelerating export growth, competitive import substitution and restoring imports of non-essential goods. The Fifth Five Year Plan, however, initiated a number of import liberalisation measures, i.e. tariff rates reduction, rationalisation of the tariff structure, removal of Quantitative Restrictions



(QRs), direct export promotion measures and a flexible exchange rate policy. It has also concentrated on the removal of supply-side constraints, such as development of infrastructural facilities, strengthening the institutional framework and developing entrepreneurial capacity.

## 2.2 Import Liberalisation

Based on the aforementioned development philosophy, the Government of Bangladesh took a number of initiatives in liberalising and simplifying its import regime. The Trade and Industrial Policy (TIP) reform programme was such an initiative aimed at rationalising and strengthening existing incentives in the industrial sector. It also recommended simplification of tariff and that QRs on imports should be phased out and replaced by import taxes; that the level as well as dispersion of tariffs should be lowered; and that the number and range of nominal rates of protection (NRPs) should be reduced. Besides, TIP emphasised on lowering real effective exchange rate (REER) for non-traditional items. It was also recommended that an EPB worth 30 percent of gross exports should be granted, but considering raising the government revenue, excise tax of 15 percent should be levied on all final consumer goods except basic necessities (Ahmed, 2001).

In 1989, the government appointed a Standing Committee on Tariff Rationalisation and Import Policy Reform. The committee endorsed the view of the TIP reform programme and made some noteworthy recommendations regarding the policy. A few important recommendations are: the level of effective protection provided to an activity should be in the proximity of 30 percent; non-tariff, quantitative import control measures, viz. the size of the negative and restrictive import list, etc., should be gradually phased out (Government of Bangladesh, 1989).

In the mid-1980s, the government initiated a gradual process of phasing out of QRs on imports with World Bank's support under its Industrial Sector Adjustment Credit (ISAC)-1 programme. The number of items subject to QRs at the 4-digit Harmonised Systems (HS) codes was brought down from 574 in 1985-86 to 124 in 1998-99 and the average nominal rates of protection for all tradables fell from 89 percent in 1990-91 to 28 percent in 1998-99 (World Bank, 1999). In addition, because of overall tariff rationalisation, the import-weighted average protection rate fell by 22 percentage points. Furthermore, as a result of the dispersion in reduced tariff rates, the number of tariff rates was reduced from 8 in 1993 to 5 in 2003, and the maximum tariff rate was brought down from 350 percent to 32.5 percent during the same time (Ahmed, 2001).

In 1983-84, import licensing system was abolished and imports were permitted through Letter of Credit authorisation form to be accepted by banks. However, prior to 1986 Import Policy Order (IPO) contained a lengthy positive list of importables and in 1985-86 fiscal year positive list in the IPO was replaced by two lists, namely, the negative list (for banned items) and the restricted list (for items importable on fulfillment of certain prescribed conditions).

Nevertheless, up to 1988, IPO was issued annually which was relaxed in 1989 from when IPO has been issued biennially. Consequently, a five-year IPO provision was launched in 1997. In the year of 2007, the interim Government of Bangladesh proposed a three-

year import policy order (from the year 2006 to 2009). This time, efforts have been made to reduce the number of restricted items from 60 items to 24 items (The Daily Star, June 01, 2007). The policy has relaxed imports of some raw materials in terms of tariff and also kept some items, i.e. polypropylene, coarse sugar, and pork, as banned items on religious grounds.

Regarding customs valuation, a voluntary Pre-Shipment Inspection (PSI) scheme was introduced in 1993-94 which was previously based on Brussels Definition of Value (BDV), a system developed by the World Customs Organisation. But as Bangladesh is committed under the Uruguay Round Agreement on Customs Valuation to switch to an invoice-based valuation system by 2000, mandatory Pre-inspection System was introduced on February 15, 2000.

### **2.3 Export Promotion**

An important element of trade policy reform has been the introduction of a set of generous support and promotional measures for exports. Considering the importance of the issue Bangladesh pursued many promotional measures for exports. Although up to 1985 the economic and trade policy of Bangladesh was highly anti-export biased, the government introduced the Export Performance Licensing (XPL) Scheme during the early 1970s in order to strengthen incentives for export oriented activities. In 1986, the XPL was replaced by the XPB Scheme. Under EPB, exporters received the proceeds from their banks at the time of negotiation of the export documents; it could also be cashed in the secondary exchange market according to the scheme. However, XPB scheme became redundant in 1992.

The emergence of readymade garments (RMG) sector in the late-1980s demanded special bonded warehouse facility. Thus, a special bonded warehouse scheme was introduced in 1978. The introduction of the scheme enabled exporters to avail themselves of a straight authorisation to import duty free into established special bonded warehouse. Exporters can now chose the option of duty drawback system instead. The facility was entitled only to those using Back-to-Back LC to export 100 percent of their production in the garments sector. But since 1993, the provision became more relaxed and offered the facility to all 100 percent exporters and “deemed exporters” (World Bank, 1996). Along with the bonded warehouse scheme, RMS entrepreneurs also received the duty drawback facility since 1982-83 which enabled them to disburse imported goods without paying any duty or sales tax. And from 1988 onwards, the scheme was further extended to indirect exporters using the inland LC system.

To import raw materials on a deferred payment basis by the exporters, Back-to-Back LC system was introduced in 1987. This provision enhanced export financing facility for a broader range of export industries. In 1986, the Bangladesh Bank introduced a cash compensatory scheme with a view to promoting backward linkage. The scheme allowed exporters a cash assistance of 15 percent of free on board export value. Consequently, the rate of compensation was revised upward from 15 percent to 25 percent in 1994. Besides, in order to insure loans in respect of export finance, and Export Credit Guarantee Scheme (ECGS) was introduced in 1978. This scheme provides exporters with credit at a concessionary rate up to 90 percent of confirmed LC value.

Also, the Government of Bangladesh offered some fiscal incentives to the exporters, including: for 100 percent export oriented industries, duty-free imports of capital machinery is allowed; and the entire export earnings from handicraft and cottage industries is rebated from income tax, etc. Noteworthy, industries in Export Processing Zones (EPZ) enjoy tax holiday for 10 years, duty-free import of machinery, spare-parts, and exemption from value added taxes and other duties (Ahmed, 2001). For enhancing further institutional support, EPB was established in 1977. EPB is more focused on specific issues, i.e. to help the government in formulating and implementing export policy to train up local exporters and arrange trade fairs locally and internationally.

## **2.4 New Export Policy 2007-09**

The Government of Bangladesh recently announced a three-year Export Policy for the Financial Years 2007 to 2009 setting a target to diversify the export basket, create employment and alleviate poverty. The policy included pharmaceutical products in the thrust sector and nine more products identified as special development sector. Under the policy, agro-products and agro processing items, light engineering products including auto-parts and bicycles, shoes and the leather products, software and Information and Communication Technology (ICT) products, and home textile will be in the thrust sector. Finished leather, frozen fish, fresh flower and foliage, jute products, textile items by indigenous people and diamond polishing are the new sectors added to the special development sector. In addition, the new policy exempted pre-shipment inspection requirements to ease the export procedure and excluded bamboo, child shrimp and sweet-water shrimp from the negative list. Moreover, outbound passengers would be able to carry US\$200 worth of product according to the policy. Besides, the new policy allows individual exporters to export samples including pharmaceutical items worth US\$5000 annually at most. The allowable pharmaceutical samples is US\$10,000 and RMG samples US\$7,500.

## **2.5 Exchange Rate Regime**

Until the early 1980s, Bangladesh maintained an overvalued and fixed exchange rate system in order to facilitate the inward-looking development strategy. The Taka was pegged to the Pound Sterling and the exchange rates with other currencies were determined by the rates between Pound and respective currencies in London. In 1980, the fixed exchange rate regime was replaced by a managed system of floating. The intervention currency was changed from the Pound to the US Dollar and the exchange rate with other currencies was determined on the basis of the US Dollar closing rates in New York *vis-à-vis* different currencies. Bangladesh had also maintained a dual exchange rate system for quite sometime by administering the Wage Earners Scheme (WES) in 1978 in order to attract remittances from the Bangladeshi workers abroad.

Since 1984, the government has continually expanded the list of items eligible to be imported through secondary market. Between 1983 and 1990, the percentage of total imports financed through this market rose from about 21 percent to about 47 percent (Rahman, 1994). This system produced multiple exchange rates. In January 1992, the official and secondary exchange rates were merged. This helped in eliminating the black market premium, which had emerged due to the multiple exchange rates. As of late, the government introduced a floating exchange rate system in May 2003.

## 2.6 Industrial Policy

After the massive-scale nationalisation of the manufacturing sector in 1992, private entrepreneurs were almost restricted except some small, medium and cottage industries (Sobhan, 1990). Yet by 1974, investment limits on private investment was raised from 2.5 million Taka (US\$37,019) to 30 million Taka (US\$444,234) providing scope for domestic and foreign private investment (Ahmed, 2001).

After the abrupt regime change in 1975, the government gave up the policy of nationalisation and moved forward to the new Industrial Investment Policy declared in December 1975. The policy of readjusting the private investment ceiling to 100 million Taka (US\$1.4mn) and the bar on private sector participation in large-scale manufacturing was withdrawn; Dhaka Stock Exchange (DSE) was also reactivated.

Since 1977, approximately a billion dollars were pledged to private entrepreneurs in Bangladesh to promote investment (Sobhan 1993). For ensuring fair and equitable treatment to private foreign investment, the Foreign Private Investment (Promotion and Protection) Act was formulated in 1980. And in 1982, the New Industrial Policy (NIP) was adopted which was revised in 1986 in the name of Revised Industrial Policy (RIP). Both these policies concentrated on quick denationalisation of public enterprises. It also removed some obstacles to local and foreign investments and to improve flexibility in pricing, capital restructuring and setting up of an improved performance appraisal system of public enterprises, which played a very substantial role.

The major changes occurred in the industrial policy in 1991. The Government of Bangladesh introduced the Industrial Policy 1991 (which was later revised in 1992) to promote market economy. This policy tends to make the government role 'promotional' rather than 'regulatory'. Almost all the sectors (exclude some sensitive sectors, i.e. production of arms and ammunitions, nuclear energy, security printings etc.) were open for investment according to the policy. Especially, 100 percent foreign direct investment (FDI) as well as joint venture both with local private sponsor and with the public sector is allowed. However, in the Industrial Policy 1999, only four sectors were restricted for the investors (Ahmed, 2001). Some sectors were encouraged to invest under Build-Operate-Own (BOO) and Build-Operate-Transfer (BOT) system.

## 2.7 Monetary Policy

Bangladesh suffered from very high level of inflation rate (around 37 percent) during the early years after the independence (Ahmed, 1984). It hampered the livelihoods of the common people all around the country. This high level of inflation incurred sharp rises in the prices of imported goods, the growth in monetary supply, along with a series of external and domestic supply shocks the severe droughts of August 1972, the floods of 1973-74, and a sharp rise in the Organisation of Petroleum Exporting Countries (OPEC) oil price in 1973 (Islam, 1977). Despite some measures taken by the government within the framework of standby-arrangement with the International Monetary Fund (IMF), both bank credit and the money supply continued to increase at high rates until the early 1980s (Ahmed, 2001).

Yet, to monitor credit and monetary expansion against the backdrop of the price situation a few measures were undertaken. Along with the process, the government adopted a comprehensive Financial Sector Reform Programme (FSRP) and Bangladesh Bank at the very beginning of 1990 started eschewing the use of direct quantitative monetary control (Ahmed, 2001). In addition, Bangladesh Bank further initiated some other major control instruments, i.e. bank rate, open market operations, rediscount policy and the statutory reserve requirement (Raihan, 2007). However, because of the changes, credit ceilings on individual banks and direct controls of interest rates were withdrawn and until now, the money supply is regulated through indirect manipulation of reserve instead of credit ceiling.

## **2.8 Fiscal Policy**

The fiscal policy of Bangladesh was also wavering at the early years of independence. Immense political pressure compelled the government to increase private sector employment and subsequent wages. Under pressure, in 1974, the government implemented a Pay Commission Report, which increased the government's salary bill by around 50 percent (Hossain, 1995). Government also offered huge subsidies to goods and services, agriculture and industrial inputs. That resulted huge budget deficit which was in turn financed by money creation (Hossain, 1995). After 1975, things were seen little bit more stable. During the period of 1976-81, the government expenditure-gross domestic product (GDP) ratio increased from 8 percent to 17 percent. In these years, revenue-GDP ratio also increased from 5 percent to 9 percent.

In July 1991, the government introduced value-added tax (VAT) replacing sales tax on imports, and a number of excise duties on domestic production. VATs are imposed at 15 percent on the customs duty paid cost, insurance, and freight value of imports. Reflecting the policy changes, the fiscal deficit was reduced to a reasonable limit. As a result, since 1990 domestic sources could provide only 15 percent of the total deficit; in 2000, the figure rose to 47 percent.

## **2.9 Outcome of Liberalisation**

Some claim that Bangladesh liberalised its economy with undue speed. However, the World Bank observed, "While trade liberalisation occurred in fits and starts in Bangladesh, stronger and more decisive commitment to trade liberalisation was seen in majority of the rest of the world. As a result Bangladesh lags behind on most measures of trade openness. Even after the reduction in nominal protection in the FY 2007 budget, Bangladesh has the highest level of trade protection in the region, which itself is the most trade restrictive region in the world" (World Bank, 2007). Despite the mounted pressure onto liberalise more, the assessment of the past liberalisation measures also should be considered. How common people were benefited from the process or was that only for booming multinational giants return – the question should be taken into consideration to make the trade liberalisation more meaningful to the countrymen or else it would leave mere substances for the ultimate outcome.

## *Trade Liberalisation and Agriculture in Bangladesh*

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Historically, the agricultural sector has been highly protected both in developed and developing economies. However, since the 1980s with the re-emergence of the neo-classical orthodoxy as the 'new' development paradigm, many developing countries adopted market reform and trade liberalisation programmes. The aims of these programmes were to reduce government control in both agricultural input and output market, lowering tariffs and non-tariff barriers (NTBs) and allowing market forces work in agriculture. These programmes often came as a part of SAP with the conditions attached by the international donor agencies, such as the World Bank and the IMF. Like many other developing countries, Bangladesh maintained very tough restrictive measures in the agriculture sector in comparison to other sectors.

Bangladesh started liberalisation reform under the SAP programme in the early 1980s. Since then the country eased many restrictive measures previously imposed on agriculture. However, the result or outcome did not reflect much of reaping of the benefits. For example, the yield per hectare remains lower in Bangladesh than in other Asian countries with comparable environment even after the implementation of market reform and trade liberalisation nearly two decades ago. In 2001, average paddy production per hectare was 6062 kg in China, 4515 kg in Indonesia, 3129 kg in Malaysia, 2856 kg in the Philippines, 2811 kg in India and 2792 kg in Bangladesh (FAO, 2001). The logical question arises whether market reforms and trade liberalisation indeed stimulated production environment and production efficiency in agriculture. Till now, approximately 77 percent of the population lives in rural areas, and about 63 percent of the labour force is employed in agriculture, forestry and fisheries. And agriculture remains the single largest contributor to the GDP, i.e. 21.11 percent (Bangladesh Bureau of Statistics, 2007).

### **3.1 Policy Reform Agenda**

Since its independence, Bangladesh pursued an inward looking development strategy with excessive government interventions in all economic activities including agriculture. Dreaming of socialist type of agriculture, cooperative farming was encouraged and the procurement and distribution of seed, fertilisers, pesticides and all sorts of agricultural equipments was controlled by the government body called the Bangladesh Agricultural Development Corporation (BADC). A series of measures, QRs, highly differentiated

tariffs rates (Zero to 400 percent), and a huge subsidy along with overvalued exchange rate were put in place to protect domestic farms from competition. This restrictive setting was reinforced by domestic market policy interventions in the form of credit ceiling, arbitrary licensing and price controls. These policies did not result in a sustained increase of production and productive efficiency rather the gap between demand for and supply of agricultural output widened over the years. To find a way out of this crisis in the 1980s, government pursued policy shift from the state intervention to more market oriented policies that translated into sectoral policies, which supported macroeconomic liberalisation.

The reform measures taken were the rationalisation of the tariffs, liberalisation of investment in minor irrigation, privatisation of trade in fertiliser, import of agricultural machineries, seed delivery systems, food distribution systems, management of agricultural research and extension systems. Moreover, reforms in the agricultural policy included liberalisation of input market, shrinking the role of government agency in input distribution, reduction of subsidies in agricultural inputs, liberalisation of output markets with producers' price incentive, gradual elimination and narrowing down of the public food grain distribution system, price stabilisation through open tender procurement policy and allowing the private sector in food grain import.

### **3.2 International Commitments**

The World Trade Organisation (WTO) is an umbrella institution for almost all international trade of the countries engaged in international trading. To promote much integrated global market, the WTO plays a substantial role by insisting the member countries to liberalise their economies. Since agriculture is usually one of the key components of any country's economy the WTO outlined policy agenda for agriculture under some international trading agreements. Agreement on Agriculture (AoA), agreement on Sanitary and Phytosanitary (SPS) Measures and Trade Related Aspects of Intellectual Property Rights (TRIPS) are the main example of such initiatives. Bangladesh, being a founding member of the WTO, is also committed to follow the conditions of those treaties which have very important implications for the country's agricultural sector.

Under the AoA, there are three main categories: (1) market access; (2) domestic support; and (3) export competition. Developed and developing countries are required to follow the commitments, while most of the LDCs are exempted. On the market access commitments, for example, all member-countries of the WTO are required to replace all kinds of NTBs with tariff barriers, and to reduce the levels of tariffs under a time-bound programme except LDCs. However, Bangladesh with other LDCs is not allowed to increase their bound tariffs as well and in some cases its bound tariff should be decreased. It should also be noted that Bangladesh, like many other WTO member countries, has bound its tariff at well above the actual operative tariff levels. Although bound tariff rates for two agricultural commodities (green and black tea) were lower than actual operative tariff, it has set its tariff bound rates at a uniform ceiling rate of 200 percent for all agricultural commodities except 13 items (for these items the bound rate is 50 percent). Bangladesh had to reduce bound tariff for four commodities to 150 percent and for one commodity to 100 percent by 2004. Nevertheless, Bangladesh, on its own, has significantly simplified and rationalised its tariff structure, reducing the number of tariff

bands from 15 percent in 1992-93 to 5 in 1999-2000 and lowered the maximum tariff rate from 300 percent to 37.7 percent during the 1990s. At present, there are no QRs on agricultural imports.

Domestic support measures in the WTO rules are categorised under one of the three boxes: Amber, Green and Blue. The Amber Box contains policies that have a substantial impact on domestic production and measures that have little or no impact on production fall within the Green Box. The Blue Box contains direct compensatory payment policies to producers due to production-limiting programmes. Both the Green and Blue Boxes are exempted from the calculation of Aggregate Measure of Support (AMS). All member countries are required to decrease their AMS. Two types of AMS have been brought under restriction: Product Specific and Non-Product Specific.

If the accumulated supports of both types – product and non-product specific support – do not exceed 10 percent of total value of agricultural production for developing countries and 5 percent for developed countries, it is not required to reduce existing support on both product specific and non-product specific supports. But if the AMS of a developing country exceeds more than 10 percent of the total value of agricultural production (in case of developing countries) and 5 percent (in case of developed countries) then both countries have to respond by reducing support 13 percent and 20 percent subsequently. However, being an LDC, Bangladesh is exempted from these reduction measures too.

Under Article 9 of the AoA, member countries of the WTO have to reduce direct export subsidies. Developed countries are required to reduce direct export subsidies by 36 percent from their 1986-88 level over a period of six years (1995-2000). During this time-frame, developed countries are required to reduce the quantity of subsidised exports by 21 percent and, on the other hand, developing countries have to reduce the volume of export subsidies by 24 percent and quantity of subsidised exports by 14 percent over a period of 10 years (1995-2004).

There are other two agreements of the WTO – TRIPS and SPS – which are more specific on keeping products safe related to health hazardous concerns and to protect intellectual property rights (IPRs). Bangladesh are struggling sometimes to match the compliance issues under SPS measures to the European Market exports, although TRIPS is yet to have any significant impact on Bangladesh (Bhattacharya, 2005).

### **3.3 Liberalisation of Agricultural Input Market**

The principal inputs in agriculture comprise fertilisers, irrigation and cultivation equipment, pesticides and seeds. Traditionally, BADC had the sole responsibilities of procuring and distributing agricultural inputs under the conformation to the pricing and related policies formulated by the government over the course of time. But the sustainability of the government interventions towards long term food-grain availability has been questioned due to the inefficiencies developed in the public sector and the heavy budgetary burden posed by these operations (Ahmed, 1995). Due to the realisation of inefficiencies and constant pressure of donor agencies, the government pursued a wide range of policy reforms in order to liberalise the agricultural input market, including



privatisation of distribution of key agricultural inputs, gradual elimination of subsidies on fertiliser and minor irrigation equipment and improved maintenance of equipment through participation of the private sector.

Yet, till the 1970s and early 1980s, promotion of irrigation was made through public agencies. In the early 1970, BADC started a modest tube-well irrigation program based on two cusec wells along with the principles of low-lift pumps. And BADC was asked to install tube-wells for the farmers at a subsidised cost, i.e. 20-30 percent subsidy (Ahmed, 1978). Finally, in the mid-1980s, the promotion of irrigation switched to the private sector. Latter, in 1986-87, restrictions on import of diesel operated minor irrigation equipments, such as shallow tube-wells (STW), were removed. The subsidy on deep tube-wells (DTW) was also removed in 1992 and the government owned BADC stopped procurement and distribution of minor irrigation equipments.

There was a substantive expansion of area under irrigation, which increased from 2.18 million hectares in 1986-87 to 4.06 million hectares in 1999-00 (BBS, 2002). The government also encouraged importing agricultural machineries by the private sector, such as power tillers whereby annual imports of power tillers and tractors raised to 15000 and 200 respectively (Rahman and Deb, 2005). Consequently, fertiliser trade is now almost entirely handled by the private sector except those of urea. Fertiliser is distributed through private sector dealers and their networks. The government issued the Revised Fertiliser Control Ordinance in 1995 in consultation with the private sector and International Centre for Soil Fertility and Agricultural Development (IFDC) for quality control and regulation of fertiliser prices.

Further policies include rationalisation and/or elimination of import duties on agricultural inputs, such as fertiliser, agricultural equipment and spare parts along with the elimination of government monopoly in fertiliser import, and abolition of standardisation requirements, including some other measures in the conditions of availability of inputs to the farmers. There was encouraging response of these liberalisation reforms. Private sector participation in input market has risen sharply. Irrigation equipment became cheaper. Different varieties of seeds and fertiliser were available to the farmers and thus, making a way to both extensive and intensive cultivation by increasing irrigated area and use of fertiliser. In addition, subsidy for fertiliser and irrigation equipment in Bangladesh has been reduced over time especially in the late 1990s.

Moreover, through the promulgation of Seed Policy Act 1992 and 1998, the government liberalised the seed market. The private sector and NGOs are now allowed to import any improved germ-plasm for research and development and to develop their own facilities for producing foundation seeds. They are also allowed to import and sell seeds, except for five notified crops (rice, wheat, sugarcane, potato and jute). For importing seeds of notified crops, private sector and NGOs have to observe some procedural formalities. Some private sector companies and NGOs have signed Memorandum of Understanding (MoU) with Bangladesh Rice Research Institute (BRRI) to have access to breeders' seed for expanding activities in the production of foundation seed and certified seed.

In addition to the formulation of the Seed Policy, a few special projects were also implemented within the public sector to develop entrepreneurship in the seed business

and to expand the seed market. These are: (1) The FAO-UNDP sponsored seed project implemented by the Directorate of Agricultural Extension (DAE) since 1998 which promotes seed production activity by entrepreneurial farmers; (2) Since 1997, the BADC has been implementing 'Bangladesh-German Seed Project', sponsored by the German government; and (3) a 'special seed uptake programme', initiated by International Rice Research Institute (IRRI) under Poverty Elimination Through Rice Research Assistance (PETRRA) project with financial support from the Department for International Development (DFID), UK is operational. Farmers under the special seed projects of DAE and BADC had produced and distributed about 16000 tonnes of rice seed by the year 2000, while BADC sells about 14000 tonnes of rice seed (Hossain, 2002).

### **3.4 Liberalisation of the Agricultural Output Market**

Public policies on the agricultural output market are mostly limited to food grains and it was heavily intervened by the government after Independence. Any kind of distribution and import was the sole responsibility of the state. However, under the liberalisation reforms many changes have been initiated to rely more on the market mechanism in the output market. Until the mid-1980s, the minimum price programme was the cornerstone of the policy. However, the government has rapidly phased out minimum prices, dismantled the ration system (statutory rationing and rural rationing), privatised and narrowed down the public food grain distribution, lifted restrictions and encouraged private sector participation in international trade and drastically reduced its presence in food-grain markets with the aim of ensuring food grain availability and long-term food security.

This reform of abolishing/shrinking public monopoly on food grain trade had important effects in narrowing the gap between the domestic and world prices of food grains. Now, the government is procuring food grains at the market prices and selling these through Open Market Sales (OMS) which help making domestic production and consumption more competitive.

Import duties on key agricultural products have dropped significantly since the late 1980s. By the end of the 1980s, almost all NTBs were replaced by tariff and operative tariff rates on major imports. These rates on rice, wheat, pulses and oil seeds were 15 percent while the rates for other items such as edible oil, dairy products, vegetables and potatoes varied from 30 percent to 70 percent (World Bank, 1994). In the early to mid-1990s, operative tariff on food grain imports was reduced to zero to cope with the production setback resulting from severe drought and bad weather. However, due to the bumper production in consecutive years of 1999 and 2000, an operative tariff of five percent was imposed on food grain import to provide protection to the domestic producers.

Other taxes including custom duties, sales taxes, development surcharges and licence fees have been reduced or eliminated throughout the 1990s in order to encourage private sector imports of other agricultural products such as pulses, oilseeds, edible oil, lentils, etc. The private-sector share in total imports increased from a mere 5 percent in 1978 to over 97 percent by 1992. As of 1995, state trading was abolished for all agricultural

commodities except rice, wheat, coarse grain and oilseeds. Even for these items, no restrictions exist on imports by private traders (Athukorala, 2000).

It is argued by many that all these policies help in creating an open-competitive environment that makes agricultural inputs readily available for farmers, ensuring food security and guarantees fair commodity prices which, in broader sense, benefited the marginal consumers. However, there are substantial debates over these issues.

### **3.5 Impact of Agricultural Liberalisation**

Bangladesh agriculture achieved a modest growth over the past three decades. With wide fluctuations, the annual average growth rate has been approximately 2.2 percent during 1972 to 2002 (Statistical Yearbook, several issues). The growth of output barely kept pace with the growth rate (2.45 percent) of population. The striking fact is that the growth of agriculture declined considerably during the first half of the 1990s. This sector grew at the rate of 2.4 percent during the 1970s and 1.8 percent during the 1980s but registered very low growth during the first half of the 1990s. The high growth of 1970s might be attributed to the so-called 'green revolution' technology, which allowed the introduction of new high-yielding varieties (HYVs) of rice, wheat and other crops. The deceleration of growth in the 1980s and the early 1990s was mainly due to the loss of agricultural land, regulated market and adverse weather conditions.

However, this sector experienced accelerated growth since the second half of the 1990s. In 1997, this sector grew at a rate of 6.4 percent. Since then rapid acceleration of growth continue and in fact, the annual average growth rate was 4.3 percent during 1996 to 2002 except in 1998. This growth rate surpassed previous growth rates in any period. The performance of Bangladesh's agriculture sector in the 1990s was better than previous decades. The value of agriculture GDP (in constant prices of 1995-96) increased to Taka 536.13 billion (US\$47.9bn) in 2002-03 from Taka 385.65 billion (US\$5.7bn) in 1991-92. But the relative contribution of the agricultural sector to the GDP declined to 21.84 percent in 2005-06 from 37.6 percent in 1990-91, indicating that other sectors of the economy expanded. Contribution of the crop, livestock, fisheries and forestry sub-sectors in 2005-06 was 12.5, 3, 5, and 1.8 percent respectively (Economic Survey, 2001 and 2007).

This growth in output was mainly due to land area expansion and of multiple cropping but the yield growth played a minor role in this growth. The fact is that farmers in Bangladesh are producing almost on the agricultural land frontier. There is limited or no scope to increase the cultivable land. Therefore, the increasing cropping intensity is the only viable option for land area expansion.

Some crops (rice, wheat, pulses and oil seeds) experienced modest increase in yield per hectare while others (sugarcane and potatoes) decline from the pre-liberalisation to the post-liberalisation period. One recent estimate shows that rice production increased from 11.7 million tonnes in 1974 to 23.1 million tonnes in 2000, an average annual increase of 3.6 percent while wheat production climbed from 0.11 million tonnes to 1.8 million tonnes in the same period (BBS, 2002).

Despite the improvement in recent years, yields per hectare, particularly of food crops are still well below attainable levels. The target of reforms was to improve farm-specific performance through the utilisation of the available resources. The average productive efficiency estimates of all regions are approximately 56, 60 and 64 percents for the pre-reform (1977), transition (1984) and post-reform (1997) periods respectively. That is, the average efficiency increased by 8 percentage points from the pre-reform to the post-reform period (Salim, 2006). This increased efficiency may partly be attributable to market deregulation and trade policy reform and partly to other factors such as good weather, etc. It is likely that the recent liberalisation reform removed various distortions from the agricultural input and output markets that enhanced farmers' accessibility to new seed varieties, modern technology, market information, and education, which benefited farmers by improving their efficiency in crop production.

However, there is substantial inefficiency still remaining at the household level of farming in agricultural production. Most farms are performing below the frontier and approximately 20 percent to 35 percent of output is lost owing to inefficiency in production (Salim, 2006). The main implication of these results is that farms could reduce their inputs considerably without reducing their output, simply by improving efficiency in production. In other words, farms could easily increase output without further increase in inputs. In fact, a recent study conducted by the Ministry of Agriculture (MoA) shows that there is a huge yield gap between actual and potential output at the farm level. The potential yield of rice (modern variety) is around 6 tonnes per hectare against 2.78 tonnes of actual output (MoA, 2003). The overall production will increase by 15 percent to 20 percent if the yield gap is minimised.

Moreover, liberalisation of trade and foreign exchange enhanced participation of private sector in agriculture business. The government has been continuously reviewing conditions affecting competitive trade and taking action to remove barriers. Liberalisation of production, processing, distribution and import of seeds is to ensure the participation of private sector seed dealers in seed industry development. The private sector is now allowed to import any improved germ-plasm for research and development and to develop its own facilities for producing foundation seeds. They are also allowed to import and sell seeds except five notified crops (rice, wheat, sugarcane, potato and jute). As regard to notified crops, there are procedural formalities to be observed by the private sector before any import. Private sector has now taken up programs for production of hybrid rice seeds in the country.

Besides, foreign donor agencies also played a very substantial role in promoting agricultural changes. One of the major roles played by foreign development agencies in Bangladesh has been the financing of rural infrastructure, which has made it easier to move products from field to market. During 1995-2000, the US financing helped rehabilitate over 15,000 km of farm-to-market roads, creating jobs and improving year-round access to markets and to basic human development services. The cost of food transportation has dropped, and freight traffic has increased 94 percent (Gordon, 2002). Foreign financing also facilitated efforts to improve water flow, which led to a quicker recession of floodwaters and a subsequent 16 percent increase in agricultural production in the affected areas. Rural electrification, aided by funding from foreign aid agencies, has been another important factor in the agricultural productivity gains.

During 1977-2000, nearly 2.42 million domestic connections were provided and over 80,000 irrigation pumps electrified. The 57 local electric cooperatives now reach over 20 million rural people. Crop yields are up in electrified villages, as are both the number of agricultural jobs and the wages received by agricultural labour. The rural electrification programme has a 95 percent rate on collection of payments, compared to only 60 percent nationwide. In addition, the results of the agricultural trade liberalisation policies adopted have been an increase in per capita availability of foodgrain in the post-liberalisation phase averaging 165.2 kg, compared to pre-liberalisation mark of 158 kg. Further, variability in consumption went down between these comparable periods. The distribution of rice intake increased for the bottom 40 percent while it decreased for the top 20 percent.

The private sector has been relatively more cost effective in the delivery of foodgrains compared to the public sector over the years (Nazimuddin, 2006). It is likely that the recent liberalisation reform removed various distortions from the agricultural input and output markets that enhanced farmers' accessibility to new seed varieties, modern technology, market information and education that led to improved farmers' efficiency in crop production. However, substantial inefficiency still remains in Bangladesh agriculture. This implies that there is potential for further increase in output without increasing inputs by simply improving the productive efficiency at the farm level. Therefore, government policies should be aimed at encouraging human capital accumulation through formal education and training to farmers. Moreover, there is a need for further reform of domestic market and trade policies focusing on institutional changes, tariff and NTBs in order to develop a competitive environment in agriculture. It is to be noted that agriculture is affected not only by its own liberalisation but also substantially by liberalisation in the manufacturing sector due to the obvious linkages between these two. One good example of this impact is the sugarcane cultivation which has been impacted heavily by the liberalisation of sugarcane import. This is discussed with evidence gathered from the field in the next section.

## *Impact of Trade Liberalisation on Agriculture: The Case of Sugarcane*

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Sugarcane has been one of the major commercial crops in Bangladesh and this was linked to a very important sugar industry in the country. As an import substitution industry it enjoyed high level of protection in terms of trade for a substantial period since Independence. However, things have been changing in the recent past as a result of liberalisation of sugar industry which resulted in heavy dependence of the country on imported sugar and the ruin of the industry as a whole. The obvious result has been the sharp decline in the acreage and production of sugarcane in Bangladesh. This has had a huge implication on the livelihoods of the millions of sugarcane farmers in the country. This section tells the story of two sugarcane villages that have been going through tremendous changes over the last three decades.

### **4.1 Sugar Industry and Sugarcane Cultivation in Bangladesh**

From time immemorial, places in and around Bangladesh have been growing sugarcane for making gur or sukker or khandeswari (raw sugar or treacle). Such sweeteners are also produced from date and palm juices as well. Bengal was well known for quality sugar in the 16<sup>th</sup> century. The East India Company exported large quantities of sugar from Bengal every year. The volume was 820,186 maunds (1 maund = 37.65 kg) in 1795 and 3,324,168 maunds in 1805. Production of beet sugar caused decline in production of cane sugar towards 1840. Later, the sugar industry suffered seriously due to diversion of land to Jute.

Under the British rule, India could not produce enough sugar to meet demands of the domestic market although it continued to export it, largely to European countries. The gap was met by import mainly from Java. In 1947, East Pakistan inherited only a few sugar mills located at Rajshahi (Gopalpur), Dinajpur (Setabganj), Kushtia (Darshana), Dhaka (Chittaranjan and Arikhola), and Mymensingh (Kishoreganj). The total cane crushing capacity of these mills was only 4,350 metric tonnes. In 1947, sugarcane occupied less than one percent of the cropped area. The East Pakistan Industrial Development Corporation planned to establish 10 new sugar mills to raise production capacity to one million metric tonnes. But by 1956, only five mills could be established and the production stood at only 26,000 metric tonnes.

Sugar industry plays an important role in the economy of Bangladesh by way of farming and creation of employment. The industry is under the Bangladesh Sugar and Food Industries Corporation. By-products of sugar mills have many uses. Molasses and bagasse are inputs for other industries. In Bangladesh, around 425,000 acres of land are under sugarcane and the annual production is about 7.5 million tonnes, of which only 2.28 million tonnes are used in sugar mills and the rest goes to molasses making. Bangladesh now produces about 150,000 tonnes of sugar, 100,000 tonnes of molasses and 800,000 tonnes of bagasse per year. The country, however, ranks the lowest in the world in per acre yield of sugarcane - only 15 tonnes, while the comparative figures for Cuba, Indonesia, Australia and Hawaii are 36, 45, 55 and 70 tonnes respectively. Recovery of sugar from cane is also the poorest in Bangladesh - only 7.4 percent compared to 9 percent in Indonesia, 12.3 percent in Cuba, 12.4 percent in Hawaii and 15.6 percent in Australia.

In the 1980s, the industry employed 15 percent of the labour force and had 30 percent of the fixed assets of the food industry as a whole. With 1.5 percent of world production, Bangladesh ranked 67<sup>th</sup> among the 130 sugar producing nations. In 2000, the country had 15 sugar mills at Panchagarh, Thakurgaon, Setabganj, Rangpur, Shyampur, Rajshahi, Mahimaganj, Jaipurhat, Darshana, Kushtia, Mobarakganj, Jamalpur, Kaliachapra, Narsingdi, and Pabna. The estimated total annual production capacity of these mills was about 215,000 tonnes but the mills did not work in full capacity and, therefore, the production remained far less than the country's total estimated annual demand of about 400,000 tonnes. A major reason for the mills to work below full capacity is the shortage of cane as farmers often find it more rewarding to use land for production of *rabi* and *kharif* crops (Banglapedia).

## **4.2 The Contrasting Villages: Evidence from the Field**

The Bheramara *upazila* (sub-district) of Kustia, a district in the northwest of Bangladesh, has been traditionally known for its sugarcane cultivation (due to concentration of sugarcane industry since the British Period). The area has been going through tremendous changes in the recent past. Two contrasting villages have been selected from this *upazila* for field investigation.

### **4.2.1 South Bhabanipur: the village where almost none grows sugarcane any more**

The village is situated four km away from the *upazila* town. At present, a total of 495 households reside in the village which include farmers, weavers, petty traders, businessmen, agricultural labourers, transport workers and carpenters, among others. Most of the people of the villages are engaged in agricultural activities. Most of these people are either agricultural labourers or small peasants. The number of large farmers and professionals are negligible.

The village has been going through huge changes in terms of crop patterns since Independence. The diversity and production in agriculture have increased remarkably since the 1980s. This has been mainly due to improved technologies and commercialisation of agriculture. However, with these enhancements in terms of diversity and production, vulnerability of the farmers has also increased. They have been exposed to crises of fertilisers, market uncertainties and steep competition.

<b>Table 2: Distribution of Cultivable Land by Crops in South Bhabanipur</b>		
<b>Crop</b>	<b>Land under Cultivation</b>	
	1980	2007
Sugarcane	55	02
Paddy	45	90
Jute	10	30
Tobacco	10	70
Winter crops	30	15
Vegetables	10	05
Maize	00	10
Wheat	00	05

Notes: (1) Aggregate of percentages exceeds 100 because of multiple cropping on the same land. (2) Percentages are estimated by people participating in group discussion.

The farmers of the South Bhabanipur village have been cultivating sugarcane since the Pakistani rule (1947-1971). Sugarcane cultivation at that time was quite widespread and it was highly profitable. Much of the harvest was consumed by the famous Darshana Sugar Factory, which was the only factory nearby at that time. Later, another sugar factory was established even nearer and this resulted in expansion of sugarcane cultivation. Due to various facilities and incentives provided by the sugar factories, sugarcane cultivation was becoming more and more profitable and it was replacing jute which was on the decline since Independence. But the sugar factories soon were exposed to the realities arising from trade liberalisation resulting in a declining sugar industry. A sharp decline in sugarcane cultivation followed. Table 2 compares the distribution of cultivable land by crops in the village. The decline in land under sugarcane cultivation has been huge – from 55 percent in 1980 to 2 percent in 2007 according to people’s perception.

Apart from the impact of liberalisation of sugar industries, there have been other factors contributing to the decline in sugarcane cultivation. One of the major factors has been the emergence of more profitable tobacco and maize cultivation. The impact of declined sugarcane cultivation has been rather positive on farmers. They have shifted to cultivation of other crops, e.g. tobacco and maize which are much more profitable. Tobacco cultivation which has grown phenomenally since 1980 has created huge scopes for women’s employment. The high profitability against low cost of maize cultivation has given the farmers an opportunity of more economic gains. However, there are debates about the long-term impact of these new crops, particularly tobacco.

While at a micro-level the farmers have been gaining by means of shifting from sugarcane cultivation which has been becoming less and less profitable, at the macro-level this indicates the decay of a crop which was one of the major commercial crops of the country. Therefore, whether the ultimate impact is positive or negative requires much more in-depth investigation and analysis.



#### 4.2.2 Khemirdiar: a village moving against the current

The Khemirdiar village is attached to the *upazila* town. More than 1000 households reside in this village. The major occupations are farming, construction work, agricultural wage labour, jobs, transport work and trade of different scales. Some of the people of this village stay in urban areas, but they have large landholdings in the village. Although they are not involved directly in agriculture they lease their lands out to people who are not locals. Thus agricultural activities in this village are much dominated by outsiders cultivating of leased in lands.

While in Bhabanipur sugarcane cultivation is in delay apparently due to declining demand from the loosing sugarcane industry exposed to trade liberalisation, the case in Khemirdiar, another village in the same area is somewhat different. Here the contrast is happening. Instead of decline, sugarcane cultivation is in fact increasing (see Table 3). Does it mean that there has been no similar impact of import liberalisation measure on sugar in this village?

The story of this village has to be considered in a slightly different way. It has been evident from discussion with the villagers that there has been huge capitalisation in agriculture and cultivation of almost all major crops increased remarkable by virtue of much increased crop intensity. From that point of view, the increase in sugarcane cultivation has rather been less compared to some other crops.

Also, the farmers cultivating sugarcane are large ones and outsiders having good connection with sugar factories. So whatever little demand the sugar factories have are met much by these large farmers investing heavily on sugarcane cultivation. This indicates another implication of the changes in sugarcane cultivation due to trade liberalisation. That is, whatever impact has resulted from the overall decline in sugarcane cultivation, the incidence of it has fallen mostly on small farmers and the large farmers are still enjoying whatever little benefit is their in the sector.

Crop	Land under Cultivation	
	1980	2007
Sugarcane	15	25
Paddy	50	70
Jute	10	60
Tobacco	15	30
Vegetables	00	05
Maize	00	20
Wheat	10	20

Notes: (1) Aggregate of percentages exceeds 100 because of multiple cropping on the same land. (2) Percentages are estimated by people participating in group discussion.

## *Trade Liberalisation and Poultry Farming in Bangladesh*

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Poultry sector is one of the sectors that has developed only in two decades and at present five million people are directly involved with this sector. This sector is providing comparably cheap protein for the huge population of Bangladesh and acting as a substitute for red meat and fish, which is also insufficient in production. Natural sources of fish are decreasing every year and due to shortage of cattle and goat the price of red meat are almost unreachable for the poor population. Poultry industry started to grow as a self-employment opportunity for the youth and spread out all over the country. In some places of the country, poultry sector got industrial level investment but overall situation is that small and medium size poultry farm are the most common in this sector.

To investigate the impact of trade liberalisation on poultry farming in the overall context of agriculture of the country, two villages near Dhaka city were selected which are known for poultry farming. The following sections present the major findings of that investigation in the two villages.

### **5.1 About the Two Villages**

Both the villages Paandhua and Carigram are situated near Dhaka. These villages have gone through extreme changes during the last three decades in terms of agriculture, population, productivity and so on. From this point of view, these villages were selected where poultry related activities started in the late 1980s and have gone through various shocks and still persisting with the farming. The vibrant nature of agriculture in these two villages has some special features like: capital investment, technological advancement, and unity among the farmers in terms of challenging external shocks.

#### **5.1.1 Paandhua**

This village is situated right beside the Jahangir Nagar University and there is deep inter-relation between this village and the university. Geographically, this village remains surrounded by water from three sides for almost half of the year. In the Bangla month of Kartik (October-November) the water starts receding and after drying out the land is used for agriculture. Apart from these lands, there is very little arable land remaining in the highland since almost all the land has already been sold out to military, civil officers and other businessmen.

This village has very good road connection with Dhaka and Jahangir Nagar University that was constructed only four years ago (earlier the internal road connection was very poor). The distance from the centre of the village from the Dhaka-Aricha road (the highway to Dhaka) is only one km and today there are various cheap means of transportation to go to Dhaka. One very important change that has taken place since the construction of the road is that the price of land has been increasing sharply. In the early 1980s, only 30 households were there and every household had local residents. In-migration from other places of the country has always been there but the rate accelerated in the 1980s and presently almost two third of the population is from outside the village.

This village has a commercial market – almost like an urban market where all types of commodities are available. The village has some large poultry farms and the oldest one in this area – ‘Pathalia Poultry Farm’ – is situated here. This is the largest farm in the village, while other poultry farms established later on in this village that got various inputs from this farm. There are also some fishery projects in this village, which is also a symbol of commercialisation of the agricultural sector where newer investments are finding new ways and rate of return is larger than that of the traditional paddy cultivation.

Paandhua is a typical urbanised village where occupational composition has drastically changed due to internal migration and other forms of occupational opportunities. Although occupational opportunities worked as a key pull factor, other factors still are at work. At present, only one-fifth of the occupation is related to agriculture and due to the shortage of agricultural land other forms of agriculture are developing. Current agricultural land usually remains under water for about eight months and this land is cultivated only once in a crop year. All the year cultivable land is extremely scarce in Paandhua and whatever left is expected to be sold out soon. A number of features have made this village look urbanised, which are:

- Electricity, gas and well-constructed roads are available in this village.
- There are diverse occupational opportunities based in Dhaka Export Processing Zone (DPEZ), University and other commercial activities in or around the village.
- Land price is extremely high compared to other villages.
- There is a market in the centre of the village that is more like an urban market.
- There are many houses that are for rent and this feature is more common for urban area.
- Internal migration is so high that the number of population from outside is double than that of the original residents.

It was observed during field visit that the hygiene practices in the poultry farm were strictly maintained but most of the poultry farms were almost attached with the households. Some poultry farmers still recollect the memory of holding up a quarantine situation for the whole village during bird flu. Layer farms (mainly producing eggs) constitute the predominant type of poultry farm in the village and most of the farmers have taken loan from the egg merchants of Savar. Flow of capital and marketing the output by merchants are very much important for the stability of the farms as there are no other way to market the products and the terms and conditions offered by the commercial banks for poultry is not suitable.

### **5.1.2 Carigram**

The position of this village is two km southwest of Nabinagar Bus Stand and there is a well-constructed paved road connecting the village with the highway to Dhaka. Water bodies also surround this village and at present the main cultivated land remains submerged under water for almost eight months. This submerged land dries out after October and is then cultivated for IRRI varieties of paddy. This village is also densely populated and almost all the land, which remains above the water level during rainy season, is sold to the outsiders and it was observed during the field research that the new owners of the land built concrete walls to identify the plots of land and many plots remained uncultivated.

There is a residential area (quite like an urban residential area) called Niribili in the northeast corner of the village and in the north side there is an industrial area. In the centre of the village, a well-established market is situated which is occupied by many types of shops and restaurants. This village has a vocational training centre which mainly provides basic training for the workers willing to go abroad. One government primary school and one non-government secondary school are there in the village.

Traditional agricultural practice which is mostly paddy cultivation is decreasing day by day as there are very few lands remaining for cultivation round the year. Poultry farm is a predominant form of capital-intensive agricultural practice in this village and the number of poultry at present is 24. The occupational composition in this village is also diverse in nature. EPZ, industrial area, and other commercial activities around the area have huge influence over the occupational composition.

In the northern part of this village, the National Monument stands tall and hence the geographical location of this village is of utmost importance for this national symbol. Since the early 1980s outsider started to buy land in this village and most of them were retired civil and military officers. At present, the ratio of this outsider is double than the local residents. The price of the land is jumping every year due to the proximity of capital city, industrial zone and very good road connectivity. This village is now a semi urban area having the following features:

- Very high land price
- Diverse occupational composition
- Urban facilities like gas, electricity available
- Good road connection to the city
- Commercial activities in and around
- Houses available for rent

## **5.2 Impact of Trade Liberalisation on Poultry Farming in the Two Villages**

The field investigation in the two villages reveal that the impact of the recent changes in the policies and realities of the poultry sector have influenced the poultry farming in the two villages just as in the whole country. Thus, the stories of the two villages show how different trade policies and the resulting outcomes have been influencing a large number of poultry farmers in the country.

### **5.2.1 Change in government policy**

Government policy regarding poultry sector has changed considerably in the course of time. Poultry sector started as a protected sector and still there is protection to some extent. Poultry sector started slowly towards the end of the 1980s and flourished over the 1990s. During the first half of the 1990s, the government liberalised the import of poultry materials by making them duty free and as a result the profit was very good (almost one Taka per egg). Under the liberalised import scenario, the prices of feed and other materials were low. Although the next government continued similar policies of liberalised imports the benefit of protection was hampered due to one new policy. The government permitted the import of hatching egg from India as well and in disguise of hatching eggs some importers started to smuggle commercial eggs which affected the whole business of the egg producing farms.

The egg producing poultry farmers were compelled to sell egg at loss as the chickens keep laying eggs and the storage of eggs was not possible and farmers always needed a huge amount of running capital to buy feed and other inputs like medicine, disinfectants etc. Farmers urged the government to stop this illegal import of egg but government did not take any initiative to stop smuggling until 2003. In fact, the period from 2003 to 2006 was very much favourable for poultry farming and profit was the highest. All the duties and charges on imports of poultry materials came down to zero and the price of feed and other inputs remained stable. In the fiscal year 2006-07, the government imposed custom duty on the import of poultry materials which has affected the poultry industry and farming in a severe way.

The price of the feed was already high before the budget of the fiscal year and due to this newly imposed custom duty, feed and other poultry materials have gone to the limit when many poultry farms are going to lay off. The price of the egg and meat did not change much compared to the price of feed and as this industry is almost totally dependant on imported input materials, any measure of imposing any custom duty influence the existing poultry farms and growth of this industry.

### **5.2.2 Market**

This sector experienced a booming growth due to the internal market demand, which was lacking the supply of cheap protein as the price of fish and red meat was out of reach of the poor people. This labour-intensive industry spread out all over the country as the profit margin was very good in the initial years. The growth of poultry farming influenced the food habit of the nation so much that meat is not a festival food any more for the poor.

From the very beginning, the demand and supply grew in harmony and at present the impact of poultry industry is huge. Indian poultry industry is more aged than that of Bangladesh and the price of Indian poultry products was much less than those in Bangladesh and due to the restriction on import of output helped the smooth growth of this industry although at one stage (1997-2001) smugglers imported huge amount of commercial egg from India which was a big blow for many farms around the country.

At present, the price of egg in India and Bangladesh is almost the same, although some farmers expressed their concern of Indian dumping practice, which already pushed the

sugar industry almost to its extinction. The market chain of poultry industry is also different from other sectors as it is almost totally dependant on the import of input materials like feed, feed ingredients, medicine, medicine ingredients, one-day chicken etc. Recent attack of bird flu has changed the import picture a lot as government has banned the import of materials from India.

The impact is particularly extensive as Bangladeshi egg producers have been mainly dependant on the Indian variety of breed. Marketing chain of poultry product is also multi-layered and the whole production chain has many levels influencing the sector significantly. As a result, the sector is exposed to high degree of vulnerability.

Any poultry farmer needs three basic ingredients: one-day chick, feed and medicine and all these ingredients are in most cases imported, as the local production of these is too low to meet the demand. In case of feed, one of the basic elements is maize and the local production of maize meet only 30 percent of the demand and the rest is imported from abroad. Rice husk, which was available and cheap, is now expensive as the export of husk to India is rising every year and hence the price is increasing.

Indian vegetable oil industry uses this husk and then exports the oil-free husk to Bangladesh. Oyster is local product but due to the lack of availability its price is also rising. Other feed ingredients are totally imported. In case of medicine, Bangladeshi pharmaceuticals produce most of the required quantity but the quality if questioned. Before the outburst of bird flue Bangladeshi chicken was exported to Middle East countries and proved to be a potential extension of the export market.

### 5.2.3 Price

Prices of inputs and outputs of poultry farming have always shown the feature of vulnerability. (see Table 4 & 5) In an industry based on live bird any input market distortion creates huge impact on production and supply. The major causes of distortions have been strikes and smuggling. One more factor has also contributed. The price of the feed and medicine, and even the composition of feed ingredient have gone through extensive changes due to avian influenza.

<b>Table 4: Changes in Prices of Inputs for Poultry Farming</b>				
<b>Materials</b>	<b>1997 Price</b>	<b>2007 Price</b>	<b>% Increased</b>	<b>Average increase</b>
Maize	650 Tk/sac	1200 Tk./sac	85	106%
Soybean cake	12 Tk/kg	28 Tk/Kg	133	
Rice Husk	280 Tk/sac	600 Tk./sac	114	
Crushed Oyster	150 Tk./sac	350 Tk./sac	133	
Protein Concentrate	600 Tk./sac	1100 Tk./sac	83	
Di-calcium Phosphate	25 Tk./sac	53 Tk./sac	112	
Vitamin and mineral concentrate			80	
<i>Source: Interview of poultry farmers</i>				

The new breed hi-sex comes from Europe and the adaptability of this breed in the hot and humid monsoon region is less and the productivity of this breed is also lower than that of previously used breed BB-300, which was imported from India. This breed is one of reasons for the increasing local demand of soybean oil as 2 litre of soybean oil is needed to produce 100 kg feed which was not even an ingredient of previously used breed BB-300. The price of soybean oil was around 65 Taka per kg when it began but now it is well over 100 Taka per kg.

**Table 5: Changes in Prices of Poultry Products**

Product	1997	2007	% Increase
Egg	250/ hundred	320/ hundred	28
Meat	50/ kg	70/ kg	40

*Source: Interview of poultry farmers*

**Box 1: Story of a Successful Poultry Farmer**

Arif is a successful poultry farmer. He started his farm in 1992 although he had been involved in the business since his student days. His primary capital was Taka 5,000 (US\$74) only when he invested in car importing business in 1986 and by the end of 1989 his capital was Taks 50,000 (US\$740). He invested some money in Bandardban hill tracts to lease huge rubber plots and from then on his capital started growing considerably by selling timber in an innovative way. At the end of 1990, he bought 2 *bighas* (measure of land equal to 1/3 of an acre) of land in Savar at Taka 5,00,000 (US\$7,403) and started rose cultivation. To run the existing flower garden, Arif employed some workers and initiated a poultry farm in the early 1992 with 600 chickens. At that time, the profit was so high that he was able to start a new batch of chicken by the end of 1993 and this growth trend continued till 1996.

Immediately after liberalising the import of hatching eggs, some businessmen started to import commercial eggs from India in the name of hatching eggs. Many poultry farm started to incur losses and were closing down. In 1998, Arif's farm size stood at around 2000 chicken and at that time although the number of large size registered farms was 97, only 40 still existed. Even in the course of incurring losses, Arif survived as he had other sources of income from car business and rubber gardening.

Arif started to make profits again following the reduction of service charges on imported poultry feed ingredients to zero and ban on the import of hatching eggs in 2003. Feed price was Taka 11.20 per kg and at this time farmers gained almost a Taka for one egg. The business again started to face difficulties in 2006 when due continued strike and political unrest the farmers were unable to buy feed and sell eggs. As this business is based on live bird, which needs to be fed everyday and lay eggs every single day, farmers faced the dual problem of feeding the chicken and selling the eggs as the transport system halted due to strike. The price of egg fell to Taka 2 per piece and the price of feed increased to Taka 18 per kg; the price of chicken meat fell to Taka 20 per kg from Taka 70. The price of feed increased even more due to some restrictions on imports imposed by the new government.

#### **5.2.4 Shocks**

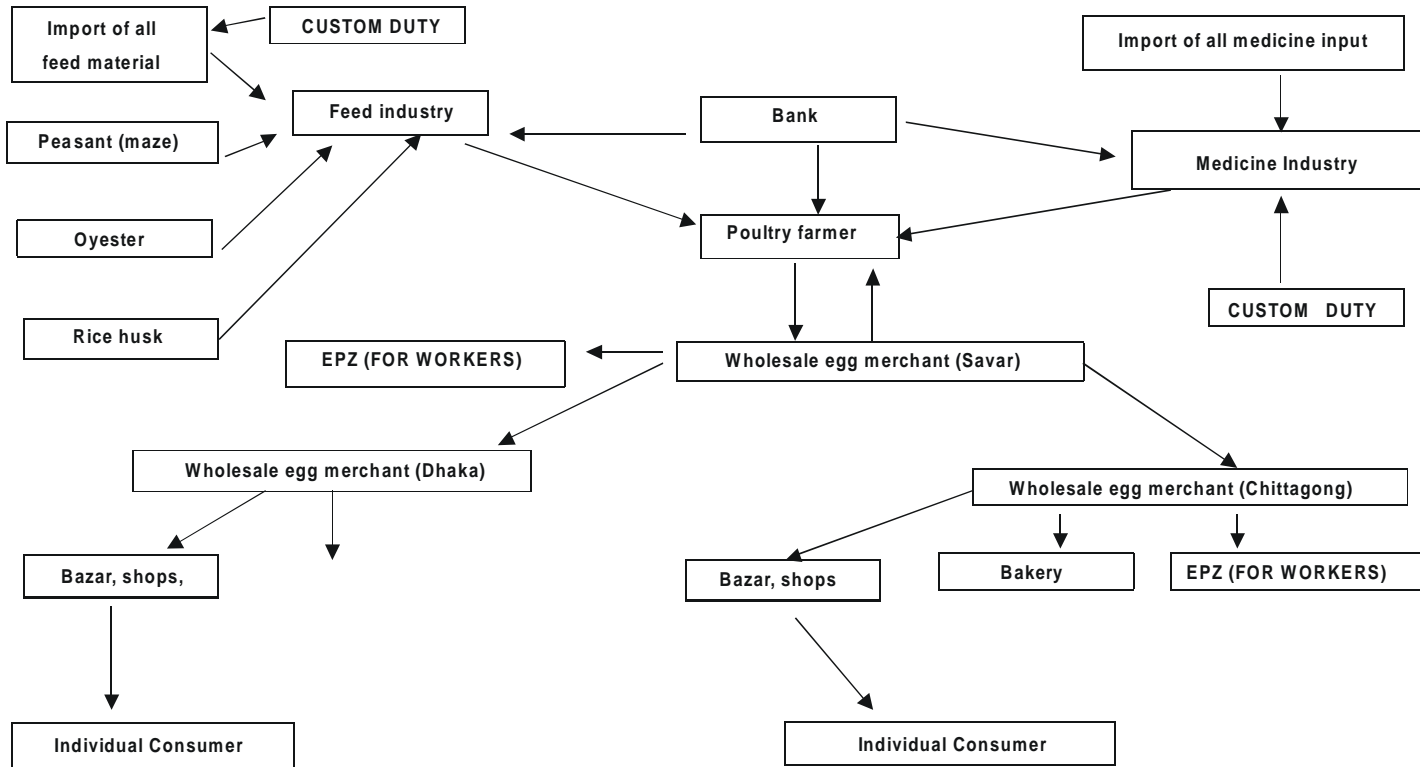
One of the major external shocks that the farmers have been facing is the avian influenza. The poultry farmers of this area united to face this shock and they were very conspicuous whether there was really any avian influenza attack. The farmers quarantined the total village by restricting the movement of personnel in the village. They established a check post at the entry point of the village where they checked every vehicle and personnel and they used disinfectant.

The government support was enormous especially in this area, where the livestock officer and the emergency team that were formed during that time did very well. The main impact of the bird flu was that the government imposed ban on importing all poultry materials from India. Bangladeshi layer farmers are mainly dependant on the Indian variety of BB-300 and due to the ban the shortage of one-day chicken was extreme although government tried to provide the native variety of Sonali layer breed but failed to meet the demand. From then on farmers have been dependant on Hi-sex variety imported from Europe the problems of which have been discussed above.

Present input cost to produce one egg is almost Taka 3.65 and the sell price is around Taka 3.7 resulting in a very insignificant profit margin which is decreasing day by day as the feed price is increasing. The impact of different factors on poultry farming is shown in Figure 1.



Figure 1: The Poultry Chain: The Impact of Different Factors on Poultry



## *Conclusion*

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The impact of trade liberalisation on the agricultural sector in Bangladesh is debated and presents a mixed picture. A number of points emerged in the preceding sections that deserve attention. They are:

- Impact of trade liberalisation on agriculture does not result only from agricultural trade liberalisation but also substantially from the liberalisation of manufacturing sector. The example of sugarcane cultivation is a clear case of declining protection on the sugar industry having heavy impact on the backward linkage agriculture. The results of such impact are multi-faceted at micro, meso and macro levels.
- Agricultural trade liberalisation in Bangladesh has created heavy import dependence on some of the very important consumer products, e.g. sugar. As a result, the country has much less control over the price of these commodities.
- The liberalisation of agricultural inputs (including fertiliser and seeds) has contributed in increasing the agricultural production of major crops, particularly paddy. However, it has also increased the vulnerability of the farmers who have been exposed to crises arising from unavailability of fertiliser, lack of dependability on seeds etc.
- Overall, liberalisation in many cases has exposed some of the previously protected sectors to substantial vulnerabilities. The poultry sector has been going through many crises in recent time including sharp rise in input prices and spread of diseases like bird flu. These crises have been pushing this sector towards decay after a huge boom in the recent past. Therefore, the liberalisation policies have to be handled very carefully considering domestic priorities on which sector to protect and how.

Seeing the political economy of trade liberalisation through the lens of agricultural trade it is clear that liberalisation is a complex process and involves a very broad canvas. This paper is a modest effort to keeping only a step in that huge initiative. But for a fuller understanding into this broad and complex issue, studies on much wider scales will be required.

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