

*M. Emdadul Haq*  
*Sultan Mohammed Zakaria*

## **AGRICULTURAL TRADE LIBERALIZATION IN BANGLADESH: AN OVERVIEW OF ITS IMPACT**

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### **Abstract**

Agriculture remains a life-blood of Bangladesh economy, though the country is making slow progress towards industrialization. Recently, the importance of agriculture has significantly increased. In view of the ongoing food crisis and intense global debate on food security, agriculture sits on the top of all trade-related discussions and negotiation of WTO bypassing manufacturing and service sector. Now, each and every nation is concerned about how to deal with this very sensitive issue. Bangladesh, being a member of WTO, is a stakeholder of all of these concerns. Besides, in a much sophisticated world order, Bangladesh has to pay attention to the rules and obligations to a number of international institutions, such as, IMF, World Bank and others, which are relentlessly pushing the developing countries to change their respective policies. Bangladesh is no exception. Therefore, it had to act on liberalizing its trade regime including the agriculture sector. Considerable research has been done on agriculture in Bangladesh. However, only a few has dealt with the overall picture of the agricultural trade liberalization and its impact. This paper is intended to fill the knowledge-gap with a focus on the changing scenario in policies and, more importantly, the impact of these

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M. Emdadul Haq, Ph. D., is a Professor and Academic Coordinator of MA in Governance and Development (MAGD), Institute of Governance Studies (IGS), BRAC University. His E-mail is mehaq57@yahoo.com; and Sultan Mohammed Zakaria is a Researcher, Institute of Governance Studies (IGS), BRAC University. His E-mail is zak\_info@yahoo.co.uk

policies during the last three decades. It has notably been observed that Bangladesh successfully removed various trade distortions in agricultural input and output market which resulted more access to the inputs, equipments and modern technologies to the farmers. The paper has also portrayed the impacts these changes brought in the sector.

## 1. Introduction

Historically, the agricultural sector has been highly protected both in developed and developing economies. However, since the 1980s with the re-emergence of the neoclassical orthodoxy as the 'new' development paradigm, many developing countries adopted market reform and trade liberalization programs. 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 to work in agriculture. These programmes often came as a part of Structural Adjustment Policy (SAP) with the conditionalities 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 with other sectors. It started liberalization reform under the SAP programme in the early 1980s. During this period, Bangladesh eased quite a large number of restrictive measures imposed on agriculture in terms of liberalization. However, the result or outcome did not reflect much of reaping the benefits of the liberalization programme. 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 liberalization nearly two decades ago. Yet, 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 and 0811 kg in India and 2792 kg in Bangladesh (FAO 2001). The logical question arises then whether market reform and trade liberalization indeed stimulated production environment and production efficiency in agriculture. Till now, approximately 77 per cent of the population lives in rural areas, and about 63 per cent of the labour force is employed in agriculture, forestry and fisheries (Rahman & Deb 2005). And agriculture remains the single largest contributor to the GDP (21. 11 per cent) (BBS 2007).

## 2. Policy Reform Agenda

Since its independence, Bangladesh pursued an inward looking development strategy with excessive government intervention in all economic activities including agriculture. Dreaming of socialist type of agriculture, cooperative farming was encouraged and the procurement and distribution of seed, fertilizers, pesticides and all sorts of agricultural equipments were controlled by the government institution — Bangladesh Agricultural Development Corporation (BADC). A series of measures, quantitative restrictions, highly differentiated tariffs rates (0 to 400%), 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. Instead, the gap between demand for and supply of agricultural output has been widened over the years. With a view to finding a way out of this crisis, in the 1980s, government pursued a policy that emphasised a shift away from state intervention to more market-oriented policies. It has translated into sectoral policies which supported macroeconomic liberalization. The reform measures taken were the rationalization of the tariffs, liberalization of investment in minor irrigation, privatization of trade in fertilizer, import of agricultural machinery, seed delivery systems, food distribution systems, management of agricultural research and extension systems. Moreover, reforms in the agricultural policy included liberalization of input market, shrinking the role of government agency in input distribution, reduction of subsidies in agricultural inputs, liberalization of output markets with producers' price incentive, gradual elimination and narrowing down the public food grain distribution system, price stabilization through open tender procurement policy and allowing the private sector in food grain importation.

### 2.1 International Commitments

The World Trade Organisation (WTO) is an umbrella institution that oversees international trade. To promote integrated global market, the WTO plays a substantial role. In this regard, the WTO

encourages the member countries to liberalize their economy. Since agriculture is a key component of any country's economy, the WTO also outlines policy agenda for agriculture under some international trading agreements. Agreement on Agriculture (AoA), Agreement on SPS (Sanitary and Phytosanitary Measures) and TRIPS (Trade Related Aspects of Intellectual Property Rights) are the main examples of such initiatives. Bangladesh, being a founding member of the WTO, is also committed to follow the conditionalities of those treaties. Commitments under WTO have very important implications for Bangladesh's agriculture 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 LDCs are exempted mostly. On the market access commitments, for example, all member countries of the WTO are required to replace all kinds of no-tariff barriers (NTBs) with tariff barriers, and to reduce the levels of tariffs under a time-bound programme. In this case as well, the LDCs enjoy certain exemption. However, Bangladesh and other LDCs are not allowed to increase their bound tariffs. In some cases, its bound tariff should be decreased. It also should bear in mind 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. Bangladesh has set its tariff bound rates at a uniform ceiling rate of 200 per cent for all agricultural commodities except 13 items (these items' bound rate is 50 per cent). Bangladesh had to reduce bound tariff for four commodities to 150 per cent and for one commodity to 100 per cent by 2004. Nevertheless, Bangladesh, on its own, has significantly simplified and rationalized its tariff structure, reducing the number of tariff bands from 15 percent in 1992/93 to 5 percent in 1999/2000 and lowered the maximum tariff rate from 300 per cent to 37.7 per cent during the 1990s. At present, there are no quantitative restrictions on agricultural imports (WTO 2000).

Relevant WTO rules are categorized 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.

Policies 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. In both the programmes, 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 support of both types – product and non-product specific support – does not exceed 10 per cent of total value of agricultural production for developing countries and 5 per cent for developed countries, it is not required to reduce existing support on both product specific and non-product specific support. But if the AMS exceeds more than 10 per cent of the total value of agricultural production in case of a developing country and 5 per cent in case of a developed country then the concerned developing and developed country will have to respond by reducing support by 13 per cent and 20 per cent respectively. However, being an LDC, Bangladesh is exempted from these reduction measures too.

Under the 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 per cent 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 per cent while, the developing countries are to reduce the volume of export subsidies by 24 per cent and quantity of subsidised export by 14 per cent over a period of ten years (1995-2004).

The other two agreements of the WTO – TRIPS and SPS are more specific on keeping products safe related to health hazardous concerns and to protect intellectual property rights. Bangladesh is struggling to follow the compliance requirements under SPS measures regarding its export to the European Market.

### **3. Liberalization of agricultural input market**

The principal inputs in agriculture comprise fertilizers, irrigation and cultivation equipment, pesticides and seeds. Traditionally, BADC has 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 management system and the heavy budgetary burden posed by these operations (Ahmed 1995). Due to inefficiencies as well as constant pressure from the donor agencies, the government pursued a wide range of policy reforms in order to liberalize the agricultural input market, including privatization of distribution of key agricultural inputs, gradual elimination of subsidies on fertilizer and minor irrigation equipment and improve 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 1970s, BADC started a modest tube well based irrigation programme relying on two cusec wells along the principles of low-lift pumps. And BADC was asked to install tube wells for the farmers at a subsidized cost (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 enhancement 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 the import of agricultural machinery such as power tillers and tractors by the private sector, (Rahman & Deb 2005). Consequently, fertilizer trade is now almost entirely handled by the private sector except urea. Fertilizer is distributed through private sector dealers and their networks. The government issued the Revised Fertilizer Control Ordinance in 1995 in consultation with private sector and IFDC for quality control and regulation of fertilizer prices. Further policies include rationalization and/or elimination of import duties on agricultural inputs, such as fertilizer, agricultural equipment and spare parts along with the elimination of government monopoly in fertilizer import, and abolition of standardization requirements, including some other measures in the conditions of availability of inputs to the farmers. There was encouraging response of these liberalization measures.

Private sector participation in input market has risen sharply. Irrigation equipment became cheaper. Different varieties of seeds and fertilizer were available to the farmers and thus, making a way to both extensive and intensive cultivation by increasing irrigated area and use of fertilizer. In addition, subsidies for fertilizer and irrigation equipment in Bangladesh have been reduced over time especially in the late 1990s.

Moreover, through the promulgation of Seed Policy Act 1992 and 1998, the government has liberalized the seed market. The private sector and NGOs are now allowed to import any improved germplasm 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 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 IRRI under PETRRA (Poverty Elimination Through Rice Research Assistance) project with financial support from the Department for International Development (DFID) of UK. Farmers under the special seed projects of DAE and BADC had produced and distributed about 16,000 tons of rice seed by the year 2000, while BADC sold about 14,000 tons of rice seed (Hossain et al. 2002).

#### **4. Liberalization 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 following independence. Any kind of distribution and import was the sole responsibility of the state. However, under the liberalization 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 rationing system (statutory rationing and rural rationing), privatized 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 has important effect in narrowing the gap between domestic and world prices of food grain. Now, the government is procuring food grain 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 non-tariff barriers were replaced by tariff and operative tariff rates on major imports (rice, wheat, pulses and oil seeds) were 15% while the rates for other items such as edible oil, dairy products, vegetables and potatoes varied from 30% to 70% (World Bank 1994). In the early to mid-1990s, operative tariff on food grain imports has been 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 5% has been imposed on food grain import to provide protection to the domestic producers. Other taxes including custom duties, sales taxes, development surcharges and license 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% in 1978 to over 97% 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).



All these policies helped creating an environment of open-competition that makes agricultural inputs readily available for farmers, ensuring food security and guarantees fair commodity prices which, in broader sense, benefited the marginal consumers.

### 5. Impact of agricultural liberalization

Bangladesh agriculture achieved a modest growth over the past three decades. With wide fluctuations, the annual average growth rate is approximately 2.2% during 1972 to 2002 (Statistical Yearbook, several issues). The growth of output barely kept pace with the growth rate (2.45) 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% during the 1970s and 1.8% 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 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%. Since then, rapid acceleration of growth continued and in fact, the annual average growth rate was 4.3% during 1996 to 2002 except the year 1998. (2) This growth rate surpassed previous growth rate 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) has increased to Tk. 536.13 billion in 2002/03 from Tk. 385.65 billion in 1991/92. But the relative contribution of the agricultural sector to the GDP has decreased to 21.84 per cent in 2005/06 from 37.6 per cent in 1990/91, indicating that other sectors of the economy have expanded. Contribution of the crop, livestock, fisheries and forestry sub-sectors in 2005/06 was 12.5, 3.0, 5.0, and 1.8 per cent, respectively (Economic Survey 2001 and 2007).

This growth in output is mainly land area expansion because of multiple cropping but the yield growth plays 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-liberalization to the post-liberalization period. One recent estimate shows that rice production increased from 11.7 million tonnes in 1974 to 23.1 million tons in 2000, an average annual increase of 3.6% while wheat production climbed from 0.11 million tons to 1.8 million tons 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 reform was to improve farm-specific performance through the utilization of the available resources. The average productive efficiency estimates of all regions are approximately 56%, 60% and 64% in 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 production efficiency. 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% to 35% of output is lost owing to inefficiency in production (Salim 2006). The main implication of these results is that farms could reduce their inputs by 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 tons per hectare against 2.78 tons of actual output (MoA 2003). The overall

production will increase by 15% to 20% if the yield gap is minimized.

Liberalization 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 germplasm for research and development and to develop its own facilities for producing foundation seeds. They are also allowed to import and sale 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 programmes for production of hybrid rice seeds in the country.

Foreign donor agencies also played a substantial role in promoting agricultural development. 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 U.S. government financially helped to rebuild over 15,000 kilometers of farm-to-market roads that created jobs and improved 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 by value 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 liberalization policies adopted have shown an increase in per capita availability of food grain in the post-liberalization phase averaging 165.2 kg compared to pre-liberalization mark of 158 kg. Further, variability in

consumption went down between these comparable periods. The distribution of rice intake increased for the bottom 40 per cent while it decreased for the top 20 per cent. The private sector has been relatively more cost effective in delivery of food grains compared to the public sector over the years (Nazimuddin 2006).

## Conclusion

The study highlighted the major policy changes in agriculture in Bangladesh over the last three decades and their impact. It is likely that the recent liberalization 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 improve 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 providing formal education and training to the farmers. Moreover, there is a need for further reform of domestic market and trade policies focusing on institutional changes, tariff and non-tariff barriers in order to develop a competitive environment in agriculture.

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