5

1. Introduction
2. The trade policy environment
3. Self sufficiency in grains
4. India and rice trade policy
5. Export promotion
6. Conclusions

5

Bangladesh - Agricultural trade policy issues

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1. Introduction

This paper investigates several characteristics of Bangladesh's agricultural trade and associated policy interventions with the objective of highlighting the complexity of existing processes of policy articulation.

It draws upon a series of papers developed or commissioned by BSERT, Bangladesh Agricultural University, on different aspects of trade policy formulation and implementation. It is not intended as a comprehensive overview of trade and related policy reforms over the past few decades, nor of the aggregate levels of support or taxation of the agriculture sector as a result of these policies. These aspects are presented in detail in recent publications such as Ahmed et al (2007) and Centre for Policy Dialogue (2008).

Rather, the paper first identifies a series of issues for further examination: (i) the pros and cons of a trade policy regime which, although significantly more liberal than it was two decades ago, still provides a relatively high level of protection to the agriculture sector; (ii) the argument for self sufficiency in grains production and the associated policy implications; (iii) the particular use of trade policy instruments in the rice sector to respond to/adjust to decisions by major exporters such as India on their market and trade interventions; and (iv) the focus on, and bias towards, export promotion in agricultural trade policy and the impacts of the instruments used in support of its implementation.

An important objective of the paper is also to assist in the identification of trade support measures and in understanding the relationship between the formulation of trade policy and broader strategies of poverty reduction. The insights gained are presented in two associated chapters. The extent of mainstreaming of trade policy

and the required support measures into poverty reduction processes are examined in the next chapter. The subsequent chapter then considers the processes through which these "cases" relate to the issues of identification of appropriate support measures. It also comments upon questions related to the articulation of domestic trade (often neglected in discussions of trade policy and associated support measures), focusing on the provision of physical infrastructure.

2. The trade policy environment

The most recent WTO Trade Policy Review for Bangladesh (WTO, 2006) noted the pursuit of an outward oriented growth strategy and efforts to reduce the anti-export bias. A significant number of non tariff barriers (such as quantitative controls) have been dismantled since the early 1990s and there has been a shift to greater use of ad valorem tariffs. Tariffs currently account for approximately 25 percent of tax revenue.

The strategy had been associated with a dramatic opening of the economy to trade, with the trade openness index (exports plus imports divided by GDP) having increased only relatively slowly from 13.5 percent in 1981 to 16.8 percent in 1991, but then rising rapidly through the 1990s and 2000s to reach 43.32 percent in 2007 (Alam, 2007, Table 1).

This degree of openness is also reflected in the trade deficit in agricultural products which increased dramatically from USD 354 million in 1980 to USD 5259 million in 2009 (of which the trade gap for food items rose from USD 376 million to USD 4002 million). The total real value of agricultural imports increased by 2.1 percent per annum between the 1980s to mid 2000s, compared to agricultural exports which increased more slowly at an annual rate of 1.4 percent. Key imports included raw cotton (a function of a 25 percent subsidy to the export of ready made garments), edible oil, wheat, rice, sugar, and milk.

Also noteworthy is that, as reported in Ahmed *et al.*, (2007), citing Bakht (1999), illegal imports from India constitute about 20 percent of total recorded imports. Of these, 42 percent is accounted for by cattle, 7 percent by sugar, 6 percent by pulses, 3 percent by milk powder, 3 percent by spices, and 2 percent by rice.

At the same time, agricultural trade policy, particularly with respect to certain commodities, may be considered rather restrictive. The average agricultural tariff (unweighted) in 1991/92 was about 77 percent, but by 2004/05 had fallen to 20 percent. In addition, the tariff dispersion was reduced when the tariff structure was simplified to four tiers. However, with the growing use of para tariffs, by then equivalent to about 13 percent, the average protection over all

TABLE 1:
Trade Information and economic openness of Bangladesh (1996-97 to 2007-08)

Period	Export	Import	Trade volume	GDP in current price	Economic openness	CPI at national level (Base year 1995/96)
1996-97	18 813	30 540	49 353	180 701	0.27	104
1997-98	23 416	34 183	57 600	200 177	0.29	113
1998-99	25 491	38 480	63 971	219 697	0.29	121
1999-00	28 819	42 131	70 949	237 086	0.3	124
2000-01	34 859	50 371	85 230	253 546	0.34	127
2001-02	34 366	49 049	83 415	273 201	0.31	130
2002-03	37 915	55 918	93 833	300 580	0.31	136
2003-04	44 827	64 257	109 084	332 973	0.33	144
2004-05	53 234	80 895	134 129	370 707	0.36	153
2005-06	70 746	99 130	169 876	415 728	0.41	164
2006-07	84 100	118 490	202 590	467 497	0.43	176
2007-08	96 800	148 372	245 172	545 822	0.45	194

Source: Shamsul Alam (2010), based on government statistics. Note: One Crore Taka is equivalent to 10 million

agricultural tariff lines remained relatively high at about 33 percent. This level needs to be considered against weighted applied average tariffs in developing countries as a whole of about 24 percent and in industrialized countries of about 14 percent (FAO 2005).[1]

The para tariffs[2] accounted for about 40 percent of the unweighted average protection level by 2004/05 and were applied to 21 percent of tariff lines (agricultural and non agricultural). The government can decide whether to impose a 15 percent, 35 percent or 90 percent supplementary duty on top of the normal duty. For example, the supplementary duty on processed seafood was increased from 35 percent to 88 percent between 1997/98 and 2003/04, and on milk powder from 47 percent to 62 percent (World Bank 2004). With a bound tariff for agriculture set at a uniform ceiling of 200 percent for all agricultural goods except for 13 for which it is set at 50 percent, Bangladesh has significant discretion to increase applied rates towards these ceilings.[3]

[1] Care should be taken in comparing average tariffs across countries, as explained in detail in FAO (2005)
[2] License fees, regulatory duties, infrastructure development surcharge, supplementary duties, protective VAT
[3] Only on green and black tea have applied tariffs exceeded the bound rates

Bangladesh also has an active trade policy with respect to exportables, with policies supporting export promotion in a number of products such as fresh vegetables and shrimps (see section 5).

In addition, levels of protection and support afforded to different products are highly variable.

The mixed pattern of intervention is reflected in various indicators of protection and support discussed in Ahmed *et al.* (2007) and in Rashid (2009a). Ahmed *et al.* focus on the NRA, which captures the proportional extent to which government imposed distortions create a gap between domestic prices and free market prices. Figure 1 depicts trends in the NRA for selected products reflecting different export and import stances.

The NRA for jute, a traditional export, has remained fairly constant over the 1974 to 2000-05 period, at around -30 percent, as a result of jute pricing and trade policies. Domestic prices have been consistently below world prices, in order to provide low cost inputs to the processing sector, accentuated by a ban on raw jute exports in the mid 1980s which depressed farm gate prices to 74 percent of the world price level.[4] The NRA for wheat has gradually declined from a positive 38.9 percent in 1974 to -0.3 percent in 2000-04, whilst that for rice has fluctuated widely between -25.7 percent in 1974 to 24.4 percent in 1985-89 and back to 6.1 percent in 2000-04. By contrast, the NRA for sugar (not shown in the graph) has remained at high levels, for example 73.7 percent in 1974, 436 percent in 1985-89 and 223.9 percent in 2000-04.

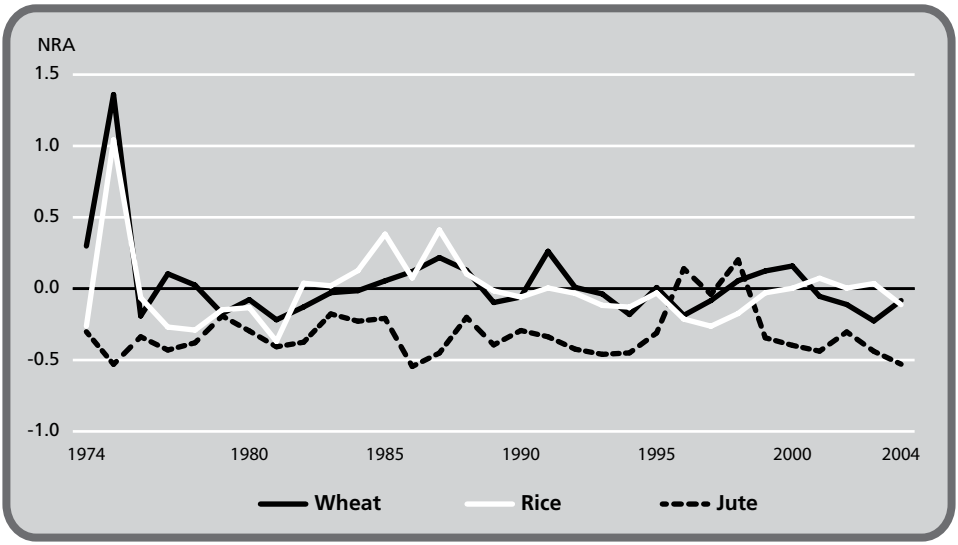
Whilst the NRA gives a partial picture of the relative support provided to the sector, other indicators presented by Rashid (2009a) give an indication as to how the support/taxation was provided as elaborated in the succeeding sections.

While imports of the key food staple, rice, are relatively unrestricted, there is a significant degree of tariff escalation which is reflected in the tariff profile. This is also reflected in the first PRSP which noted that the country promoted a "realistic tariff rationalization programme to substantially benefit the domestic industry relying on imported intermediate goods". Indeed, tariff escalation is an industrial policy objective and remains pronounced. The World Bank (2004) have highlighted a consistent policy of increasing protection to the processing margins of import competing industries selling into the domestic market by pushing up tariffs protecting their outputs, while reducing tariffs on intermediate inputs.

This mixed pattern reflects a combination of policy decisions influenced both by domestic pressure groups, particularly where an agricultural product is used as an input

[4] See Section 5 for more recent developments in the price of Jute

FIGURE 1:
Nominal rate of assistance for selected commodities



Source: Authors using data from Ahmed et al (2007)

to a higher level process, and by structural adjustment programmes, with the World Bank, Asian Development Bank and USAID in particular, exerting a major influence on the formulation and implementation of agricultural policy by tying programme loans and import credits to the policy reform agenda (Ahmed *et al.* 2007, p.25).

However, the conflicting pressures have resulted in a policy set whereby the export and import policies of the Ministry of Commerce (MOC) are weighted in favour of certain exportables, whilst there is hardly any consistency between these policies and the National Agricultural Policy (NAP) of the Ministry of Agriculture (Khan 2009). For example, the Export Policy (2009-2012) gives support to the agriculture export sector, but the NAP makes only casual reference to these agricultural sub-sectors.

According to Alam (2010), a prime rationale of the PRSP is to facilitate the intensification and acceleration of the export promotion activities and to play a strong role in the accomplishment of the government's stated poverty reduction objectives, "Keeping in mind the objectives stipulated in the PRSP, the government has taken initiatives to diversify and liberate the export sector from limited goods dependency and to ensure a supply of goods at competitive prices in the world market by putting more importance on the facilitation and simplification of import-export procedures, expansion of the use of modern technology in businesses, market expansion, capacity building activities such as productivity increase, production of

quality goods, reduction of business expenses, and compliance-related issues including the overall development of the governance situation".

Further, Alam notes that in the current Export Policy (2009-2012), promotion of exportable commodities produced, particularly by women, is given priority, "Availability of raw materials to be used for exporting goods, increase of productivity and diversification of products, enhancement of efficiency and dynamism through the use of e-commerce and e-governance, establishing backward and forward linkages with suitable infrastructure and development of trained human resources in the export sector have been given emphasis in the export policy. In the policy, agro-products and agro processing commodities are one of a set of eight products that have been identified as thrust sectors in exports".

The Import Policy Order (2009-2012) is broadly supportive, highlighting the "need to provide facility for the import of technology for widespread expansion of modern technology, provide facility for easy import for the export support industries for the purpose of placing export industries on a sound basis and with this end in view, to coordinate the import policy of the country with the industrial policy, export policy and other development programmes, to make easier the availability of industrial raw materials for increasing competition and efficiency by gradual removal of restrictions on import of finished goods". However, the import policy pays little attention to import competing crops and to the types of trade policy that might be available to manage food imports.

To summarize the above discussions, the trade policy regime in Bangladesh is therefore of a more liberal than it was previously, but is still relatively interventionist when it comes to agriculture. Indeed, and as noted by Talukder (2010 p.23), "open trade policy does not imply a passive role for government in food grain sectors".

While it is problematic to determine the impact of further reductions in tariff levels on food security and poverty indicators, and while such reductions need to be assessed on a case by case basis (see for example Thomas and Morrison (2006) and Morrison and Sarris (2007)), a more transparent and predictable use of trade policy is likely to be beneficial, particularly where private sector support to the development of marketing channels and associated infrastructure is required.

Recent events have, however, highlighted the propensity for government involvement in food staples trade, with the imposition of various restrictions on exports. In Bangladesh, a six month ban on non aromatic rice exports was implemented in May 2008. This was extended to all rice in November 2008 and renewed in May 2009, although relaxed to allow the export of 10 000 tonnes of aromatic rice in September 2009 (World Bank 2009). The events associated with the food price crisis have therefore refocused attention on the ability of the country to source from global markets when food staple production is insufficient.

A key question that the discussion above raises is whether the significant emphasis on export promotion and export led growth is appropriate, or by contrast, whether the "residual" policies on importables are sufficient to ensure that key poverty reduction and food security objectives are achieved, particularly given the increased concerns about the reliability of global markets.

In the following subsections, this question is considered by taking three "cases"[5] for further examination: (i) trade policy in relation to self sufficiency in grains; (ii) trade policy on rice given the role of India and other exporters, and (iii) the use of policy in the promotion of shrimp and fresh vegetable exports.

3. Self sufficiency in grains

The World Bank has noted that for over 30 years, a central objective of the government was self sufficiency in food grains (Ahmed 2007). As Deb *et al.* (2009) state, "from 1993, self reliance was more formally adopted as a strategy, essentially on the back of imports of cheaper rice from India following the partial liberalization of their trade policy with respect to the export of rice". This has generally worked well, with the private sector importing sufficient rice in a timely manner when the need arose (Dorosh 2001) given that Bangladesh normally produces enough rice to feed its population of 150 million, but often requires imports to cope with natural calamities such as droughts and floods.

However, the strategy was tested in 2007/08 when a number of major grain exporters imposed export restrictions that made sourcing of staples from global markets problematic. While importing from international markets during this period was very difficult, it is important to recognize that the potentially negative impacts were ameliorated by an all time high harvest in Bangladesh. The fear that global markets may not always be reliable as a source of food when needed was reflected in the new Government's election pledge of achieving self sufficiency in food grains by 2012 (Deb *et al.* 2009).

In following up on this pledge, the government slashed fertilizer prices in January 2009 and reduced the price of diesel to farmers through cash subsidies. In June 2009, the finance minister argued that to attain self sufficiency by 2012, an expansion in irrigation would be required. In April 2010, the Prime Minister promoted the increase in subsidies to farmers to achieve "food autarky" with a

[5] It should be recognized that the cases, particularly those where import trade policy is discussed, are restricted to crop enterprises. The discussion is therefore partial to the extent that it does not include analyses or views on input trade policy for livestock (vaccines, feeds) or fisheries (for example, brood stock) enterprises. The conclusions with respect to crop enterprises are not necessarily generalisable to these other sectors.

potential increase in such outlays from Taka 3 000 crore to Taka 5 000 crore (Daily Star, various articles).

A key question addressed in this section is what self sufficiency in grains means for Bangladesh, whether it is an appropriate policy stance, and the trade policy instruments that might be used for this.

As a backdrop to the discussion, it is important to note that, as Ahmed *et al.* (2007, fn 21 p.25) note, "various studies of comparative advantage in Bangladeshi agriculture demonstrate that the attainment of self sufficiency in rice production is not only an important socio-political objective but an eminently sensible one from a strictly economic point of view". Thus implying that a strategy of ensuring self sufficiency may not be as contentious as in other products and countries.

As the staple food for Bangladesh, rice production is the most important economic activity in rural Bangladesh. Rice is grown in all the three growing seasons and covers about 77 percent of the total cropped area of around 13.9 million hectares. At present, rice alone constitutes about 92 percent of the total food grains produced annually in the country (FAO 2010). Indeed, Bangladesh is the world's fourth largest producer of rice. Production has increased significantly from about 6 million tonnes in 1971/72 to 13.6 million tonnes in 1981/82, further doubling to 29.8 million tonnes in 2007/08. Some 80 percent of the increase was from the irrigated Boro crop.

Staples food grain consumption is primarily of rice with less consumption of wheat, a staple that is only produced in relatively small amounts in Bangladesh. Wheat is not a close substitute for rice in domestic consumption, therefore the effect of wheat imports (mainly food aid) on rice prices is small, although in the absence of wheat imports, rice prices would have been somewhat higher (Ahmed *et al.* 2007).

Although domestic production of food grains has increased significantly over the past four decades, imports have always constituted a significant proportion of total availability of food grains in the country. Even allowing for 1998/99, where a devastating flood in the latter part of 1998 severely depressed domestic production, imports constituted around 10 percent of total availability for most of the years under review (Table 2). It is also important to note that while public imports represented an important component of total imports during 1990s, private imports increasingly dominated total imports during the recent decade, although it is noteworthy that government commercial imports have recently increased. (Talukder 2010)

A key component of the reforms facilitating trade post1993 were the clear signals that the government gave to the private sector traders, removing tariffs and surcharges and instructing customs to speed clearance following shortfalls

TABLE 2:

Share of imports in the total availability of food grains (in 000 tonnes)

Year	Public import			Private import	Total import	Import as % of total availability
	Aid	*Commercial*	*Total*			
1991-92	1 414	150	1 564	-	1 564	8.36
1992-93	736	93	829	355	1 184	6.31
1993-94	654	-	654	312	966	5.14
1994-95	935	620	1 555	1 013	2 568	13.82
1995-96	743	841	1 584	850	2 434	12.56
1996-97	618	112	730	237	967	5.02
1997-98	549	249	798	1 149	1 947	9.38
1998-99	1 235	777	2 012	3 200	5 212	21.42
1999-'00	870	-	870	1 234	2 104	8.56
2000-01	492	-	492	1 063	1 555	6.02
2001-02	511	-	511	1 289	1 800	7.2
2002-03	254	-	254	2 966	3 220	11.72
2003-04	289	29	318	2 480	2 798	10.24
2004-05	290	101	391	2 980	3 371	12.5
2005-06	194	103	297	2 264	2 561	9.5
2006-07	87	121	208	2 209	2 417	8.7
2007-08	258	296	554	2 916	3 470	11.5

Source: FPMU: Database on Food Situation, MoFDM, Dhaka

TABLE 3:

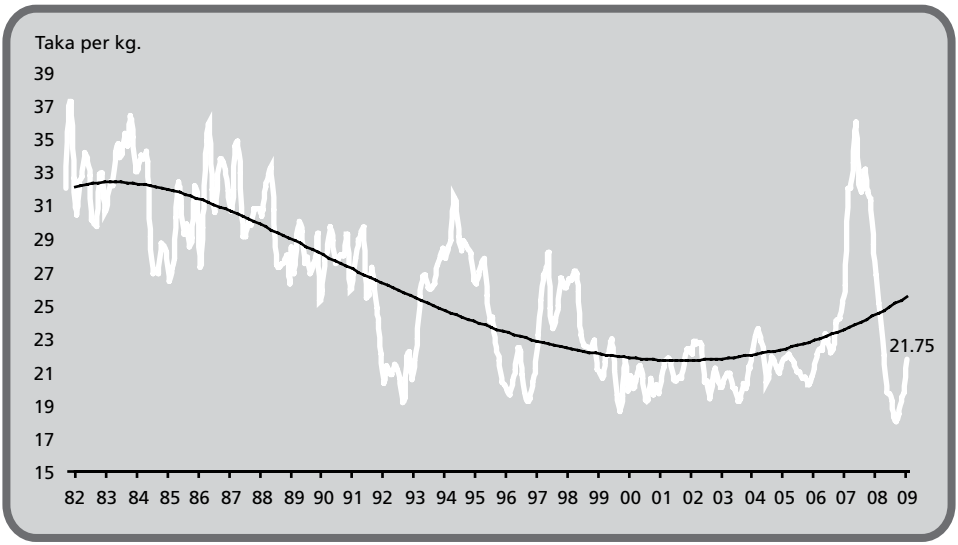
Real food grain prices in Bangladesh, 1981-2008

Year	Nominal price of grains (Tk./ tonne)		Non-food CPI (1985/86 = 100)	Real price of grains (Tk./kg)	
	Rice	*Wheat*		*Rice*	*Wheat*
1980/81 - 1984/85	6 352	4 006	76.6	8.2	5.2
1985/86 - 1989/90	9 076	5 692	123.3	7.5	4.7
1990/91 - 1994/95	6 574	7 034	186.4	5.6	3.8
1995/96 - 1999/2000	11 864	8 760	215.3	5.5	4.1
2000/01 - 2002/03	12 250	8 742.3	246.7	5	3.5
2006/2007	23 000	27 500	310	7.4	8.8
2007/2008	24 000	19 000	328	7.3	5.7
2008/2009	22 100	18 110	-	-	-

Source: Talukder (2010) citing Chowdhury (2009)

FIGURE 2:

Real national wholesale price of rice since December 1982



Source: Department of Agriculture Marketing, Bangladesh
Note: Prices are defated by the general CPI (as of October 2009) which is obtained from BBS; Price as of 31 December 2009

Although on balance positive, there are associated risks, noted by Dorosh (2001). Given that rice is such an important component of rural activity, dynamic growth in productivity also needs to be assured domestically.

By encouraging this trade, Bangladesh has no doubt augmented domestic supply and, with the notable exception of the high food price months during 2007-2009, this has stabilized prices (Table 3). Indeed, even during those months, prices did not increase to the extent seen on global markets (see Figure 2).

Rice imports, although averaging only 3 percent of net availability during 1980-2004 contrast to wheat, where imports accounted for about two thirds, play a critical role in food security and rice price formation.

Since the early 1990s, there have been significant changes in the determinants of rice trade as it affects Bangladesh. Dorosh notes that the coincidence of major changes in Indian macroeconomic policy, namely a gradual liberalization of trade and a depreciation of the rupee, which combined to increase returns from rice exports, and the 1994 liberalization of trade in Bangladesh[6] that permitted private

[6] Prior to 1992/93 all rice imports were by the public sector.

sector imports, dramatically changed the import source of rice from Thailand to India. By 1996/97, India accounted for 92 percent of Bangladeshi rice imports. Demonstrating the importance of the switch, Dorosh estimates that if India had not been a source during the shortfall year of 1998/99, rice from Thailand would have resulted in an import parity price 21 percent higher, causing a decrease in demand of about 5 percent, and approximately 500 000 tonnes less rice being imported.

Interestingly, wheat imports fell by 2.9 percent per annum between 1973 and 2004, reflecting production increases from 0.259 million tonnes in 1972-78 to 1.47 million tonnes in 1999/2004. The ratio of imports/net availability fell from 81.7 percent in 1973/78 to 59.7 percent in 1999-2004.

The 2007-08 food price crisis caused a re-focusing on two important aspects: (i) short term availability and stock management; and (ii) longer term production potential.

3.1 Short term availability and stock management

Plans to import 300 000 tonnes of rice in the fiscal year to June 2010 through international trade to "shore up our stocks" has been interpreted as a government move to build up food reserves after failing to procure enough food locally. According to the Gurumia website[7] the country also planned to import 750 000 tonnes of wheat in the year to end June 2010 to rebuild wheat stocks. Simultaneously, in January 2010, the government extended its rice ban to curb price increases and ensure availability in the domestic market. Open market sales in the capital and surrounding areas were also used to keep prices down, however, the open tender process and associated complex procedures can slow down decisions as to when and how much to import, potentially adding to uncertainty and volatility in domestic markets.

The crisis also raised longer run concerns over the country's capacity to increase rice production due to increasing arsenic contamination and falling water table (Ahmad 2010). Citing the recent growth in Boro production, the Agriculture Minister Chowdhury argued for the need to shift to Aman production[8]. Acknowledging the risks associated with rainfed rice production, the government has provided free electricity to irrigation during drought/delayed monsoon (Ahmad 2010).

3.2 Are such strategies in line with the country's comparative advantage?

Talukder (2010), using data from Rashid (2009), argues that Bangladesh has a comparative advantage in the production of rice, particularly at import parity prices

[7] http://gurumia.com

[8] In 1971-72, Boro production was only 1.7 mt compared to Aman's 4.1 mt. By 1997-98, the two crops had similar outputs of 8.1 mt and 8 mt respectively, but by 2008/09 Boro at 18 mt had suprassed Aman at 12 mt.

(Table 4). Deb et al. (2009) also conclude that Bangladesh has a comparative advantage in rice production at import parity prices; hence it is cheaper to produce domestically than to import, but that the country is not competitive as exporter. They also suggest that as the country depends on a combination of the international market and buffer stocks for natural disaster years, it needs to take precautionary measures

In interpreting the above results, it should be noted that the government has been "hands-on" in stimulating rice productivity growth. During 1970s and 1980s there was significant support to agricultural modernization (seed, irrigation, fertilizer, R&D, extension). Equally, as Deb *et al.* (2009, p22) note, the cost of production is significantly influenced by government intervention in different "exporting" markets, which also influences the results.

Deb *et al.* illustrate the point by comparing the costs of production in India, Vietnam and Bangladesh (Table 5). They note that there are significant differences in the levels of subsidy applied to fertilizer (limited in Vietnam) and irrigation (significant in both Vietnam and India). They also suggest that it is important to monitor international prices, the policy in India and in other exporting countries as well as the production situation domestically when setting and modifying trade policy.

Examining the capacity of other exporters to serve Bangladesh's needs, they suggest that Myanmar's surplus is generally too small to meet Bangladesh's import needs; that Thailand is a dependable but expensive source[9] (reflecting the fact that policy in that country is driven largely by the interests of Thai producers) and import costs from this country are higher than the cost of domestic production in Bangladesh; and that India is of questionable reliability given that its trade is driven by the Indian consumer concerns. They also calculate that if India reduces its fertilizer subsidy, output would fall by 9 percent and there would be no exports. All of these arguments point to risks in relying too heavily on imports.

4. India and rice trade policy

The large expansion in India's rice exports was significantly linked to the Indian macro and trade policy. There are significant differences between Bangladesh and India in terms of the overall importance of rice on total food consumption, seasonal patterns of production, levels of public food stocks, and channels of public food grain distribution and trade policy. These factors have heavily influenced the evolution of external rice trade between the two countries.

[9] Thai 5 percent (f.o.b) Bangkok price remained much higher than the Kolkata price and the Dhaka LC settled price. The import parity (c.i.f) price would be still higher once adjusted for the ocean freight rate. Thus Thailand is unlikely to remain a dependable source of rice import for Bangladesh as long as rice can be imported from neighbouring and other Asian countries such as India, Pakistan, Myanmar and Vietnam (Talduker 2010)

TABLE 4:
Domestic resource cost (DRC) for rice

Year	DRC ratios			
	Fine rice		Coarse rice	
	Import parity	Export parity	Import parity	Export parity
2005	0.570	0.857	0.681	0.798
2006	0.621	0.900	0.738	0.868
2007	0.612	0.882	0.680	0.783
2008	0.279	0.284	0.482	0.529
2009	0.561	0.800	0.433	0.477

Source: Talukder (2010) with data from Rashid (2009)
Note: A DRC ratio of less than unity indicates a comparative advantage

TABLE 5:
Cost of production of paddy in India, Vietnam and Bangladesh: 2007/08

	Mekong Delta, Vietnam	Punjab, India	Andhara Pradesh, India	West Bengal, India	Aman HYV, Bangladesh	Boro HYV, Bangladesh
Seed	26.69	16.02	22.49	17.85	17.21	18.14
Fertilizer	205.24	62.63	61.00	42.98	66.67	114.15
Manure	Nil	3.29	14.04	9.85	5.45	14.46
Pesticides	56.50	34.75	30.03	4.59	5.85	11.88
Irrigation	34.88	94.48	25.79	38.17	2.80	149.76
Machine rental	36.65	115.81	58.30	26.11	60.44	59.15
Animal labour	Nil	1.70	24.46	64.95	9.46	5.37
Human labour	288.66	128.87	242.94	253.76	235.50	278.80
Total cost	648.62	457.54	479.04	458.25	356.28	651.71
Yield (t/ha)	5.79	6.48	5.24	3.60	3.66	5.34
Unit cost (USD/tonne)	112.02	70.66	91.49	127.26	97.34	122.04
Price (ÙSD/tonne)	145.79	160.60	160.80	167.50	207.96	182.74

Source: Deb *et al* (2009)

Dorosh (2001) cautions that if, for example, Bangladesh's currency appreciates, it could become a consistent cultural goods could result in a slowing of agricultural and rural economic growth in Bangladesh.

Shortly after the publication of Dorosh's paper, another significant decision by India affected the rice trade. From 2000, India promoted exports to solve a

significant stock build up. This included subsidizing exports by providing grain from government stocks to exporters at below cost. Bangladesh prices were approximately equal to full cost (including tax) import parity price of Below-Poverty-Line (BPL) rice from India so small amounts were imported.

When the sales price of Indian Above-Poverty-Line (APL) rice was lowered in July 2001, Bangladesh increased its import tariffs and taxes from 5 percent to 37.5 percent, raising the BPL import parity 33 percent above domestic levels and cutting off the incentives for private trade. Although the Table 6 only provides data to 2003, it illustrates the reduction in protection rates from the early 1990s to 2001, when they were increased in response to Indian subsidized exports.

As the BPL import parity (including tax) determines the Bangladesh domestic price, import tariffs raised domestic prices relative to the import parity price (without tax) of subsidized Indian BPL by about 10 percent. Ahmed *et al.* (2007) note that the close relationship between the Bangladesh import price and the Indian APL (subsidized PDS) reflects informal trade as PDS rice is not in fact exported.

Similarly, following an Indian ban on cereal exports to Bangladesh, exports continued through Nepal with 150 000 to 200 000 million tonnes of exports from Nepal to Bangladesh, reportedly originating in India.

5. Export promotion

While trade policy with respect to importable food staples is characterized by interventions, which have been formulated primarily on the basis of food security concerns, and, as a result, these policy interventions have thus been variable in terms of the levels of protection and support provided, the policy with respect to agricultural exportables has been more consistent.

According to Ahmed *et al.* (2007), there was a significant bias against agricultural exports over the period of their study (1970s to mid 2000s), with NRAs maintained at a level of approximately negative 30 percent (Figure 3).[10] However, the apparent anti-export bias reflected in Ahmed *et al.* is potentially misleading because "exportables" are listed as including only jute and tea[11]. The weighted average for exportables in the graph below reflects the fact that raw jute as an exportable has been implicitly taxed (through various export restrictions as discussed in section 2) to allow the

[10] However, while true for the period to the mid-2000s, a surge in jute prices (international and domestic) in 2009 and 2010 resulted in significant profit margins, an associated supply response and the reopening of public sector jute mills previously closed on loss making grounds (Mandal 2010, pers comm.). This example illustrates the difficulties in interpreting historic data in the contemporary policy making environment.

[11] Similarly, wheat, rice and sugar are taken as the importables and potatoes as a non tradable in Ahmed *et al.*

TABLE 6:
Customs and supplementary duties on rice

Year	Customs duty	Supplementary duty	VAT	AIT	LF	DSC	Tax incidence
1991	30	0	0	2.5	2.5		35
1992	60	0	15	2.5	2.5		89
1993	7.5	0	0	2.5	2.5		12.5
1994	7.5	0	0	2.5	2.5		12.5
1995	0	0	0	2.5	0		2.5
1996	0	0	0	2.5	0		2.5
1998	0	0	0	3	2.5		2.5
1999	5	0	0	0	0		5
2000	5	0	0	0	0		5
2001	25	0	0	3	2.5	2.5	33
2002	22.5	0	0	3	0	3.5	29
2003	0	0	0	3	0	4	7

Source: from Ahmed (2007, Appendix Table A7, pages 57-67). Figures for 1997 were not included in the source data.

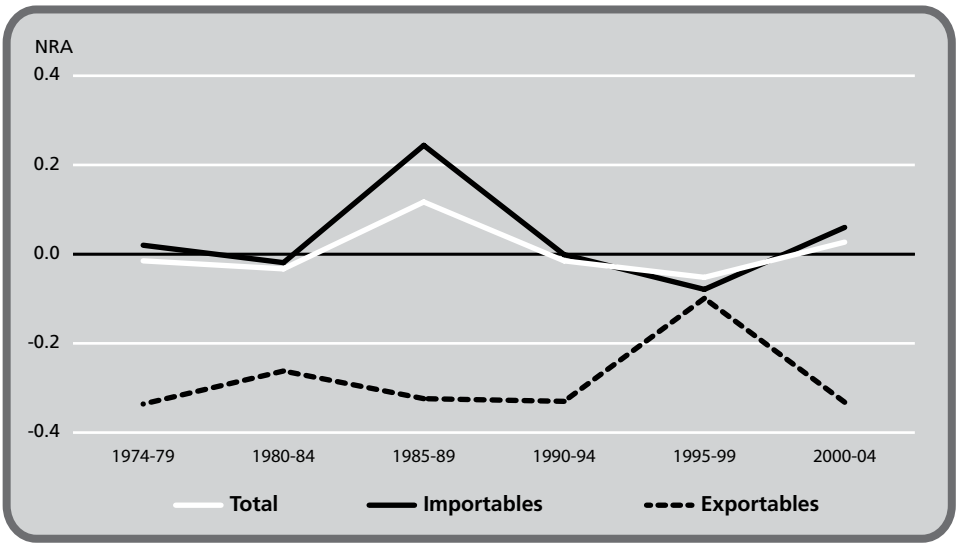
development of local processing industries in jute based goods. However, this should not be taken as reflective of policy with respect to other exportables. Whilst jute (as the primary agricultural export in the 1970s) has been negatively affected, it is certainly not the case that agricultural exports *per se* have been taxed in recent years.

Indeed, a key component of the export policy for the past decade has been the use of cash incentives for the promotion of the export of certain agricultural products, primarily to generate foreign exchange, but also to support producers of these commodities.

The cash incentive scheme was initially introduced to assist the export of locally produced jute products and other local textiles. Since then it has been progressively increased in scope (both in terms of the overall outlays on cash incentives and the number of products, which has increased to 14), with frozen shrimps and other fish, fruits and vegetables and processed agro-products included in the programme since 2002-03, potatoes added in 2004 and hatching eggs and day old chicks in 2005. The cash incentives are provided to internal and international handling, transport and freight charges which are allowed under Article 9.4 of the WTO Agreement on Agriculture.

The cash incentive is provided on the net FOB value, calculated using a fixed administered price set by the Bangladesh Bank. The cash incentive varies across products and across time in the range of 10 to 30 percent. Although the total expenditure on the cash incentive scheme has not increased significantly over time (falling from USD 132 million in 2002/03 to USD 89 million in 2005/06 before

FIGURE 3:
Aggregate NRA – importables vs exportables



Source: Based on the database in Ahmed *et al.* (2007)

climbing to USD 185 million in 2007/08), there has been a significant change in the balance away from support to local textiles and towards frozen shrimps and other fish, where the outlay on cash incentivesincreased from USD 8.64 million in 2002/03 to USD 52.60 million in 2007/08, and that for fruits and vegetables increased from USD 0.13 million to USD 9.42 million over the same period (Deb and Bairagi 2009).

Further protecting and supporting the development of these export sectors has been the use of high tariffs on frozen shrimp and fish and on jute, despite the fact that they are major exports. Tariffs are also very high on some import substitution crops, for example vegetables, fruits, nuts and spices and on import substituting food processing industries. Indeed, as Khan (2010) notes, "the Export Policy 2009-2012 also prohibits the export of raw shrimp", and that "agro-food processing including frozen food is declared as a highest priority sector".

The approach to trade policy towards exportables therefore reflects the perceived importance of the processing and trading sectors and makes use of a combination of export promotion and tariff escalation.

The selected support to different sub-sectors appears to have contributed to a significant change in the export pattern. The World Bank study (Ahmed *et al.* 2007, p.4) notes that while the agricultural share in total exports has fallen from

37 percent in the 1970s to 7 percent in 2004/05 (due to increased exports of Ready Made Garments), the recent growth in shrimp exports, which now has a 65 percent share of agricultural exports, and vegetables with a 6 percent share, has been driven to a large extent by the cash incentives and by subsidized freight charges.

Deb and Bairagi (2009) argue that there is a significant positive relationship between the cash incentives and production, but that the relationship is especially visible in terms of the effect on export quantities and volumes and on certain incomes and factors of production along the value chain. They compare growth in the pre-cash incentive era (1985/86 – 2001/02) with growth in the cash incentive era (2002/03 – 2007/08). In terms of production growth rates, the picture tends to be mixed. For example, the rate of growth in annual shrimp harvest by capture increased significantly, but for shrimp production by culture it fell. Similarly, with vegetables, the annual growth rate in production was slower overall in the cash incentive period, but there was growth in the majority of individual vegetable products.

In terms of export performance, there was a very high increase in the export of shrimp. For example, frozen shrimp exports increased from 9.86 thousand tonnes in 2001/02 to 23.52 thousand tonnes in 2007/08, while the value of these exports increased from USD 252 million to USD 417 million. The percentage increase in the export of other frozen fish was even higher, albeit from a lower base.

Both the volume and value of vegetable exports also increased significantly, with volumes increasing from 3.75 thousand tonnes in 1990/91 to 30.93 thousand tonnes in 2007/08. In value terms this represented an increase from USD 4.37 million to USD 60.47 million. During the cash incentive period alone, the quantity of exports increased 2.4 times and the value by 4 times.

It should be noted that despite the significant increases, the volume of exports of both vegetables and shrimps depends not only on the cash incentive but on the ability of the sectors to comply with HAACP, SPS, pesticide residue etc. Further advances in this area could provide a significant additional boost (see the subsequent chapter on trade support measures).

By disaggregating the value chain and looking at changes in margins, Deb and Bairagi demonstrate that the net income of fish farmers was 52 percent higher in cash incentive period, while that of vegetable farmers increased by 79 percent. Similarly, the amount of labour engaged in the production and processing of exported shrimp increased by 85 percent, although the increase for the production of vegetables was only 7.5 percent.

The "success" of the cash incentive programme in promoting exports has also resulted in pressure for their use in other sub-sectors which may not be considered to require this type of instrument for subsector development.

For example, in April 2010, the cash incentive to potato exporters was increased from 10 percent to 20 percent until 30 July 2010 as a result of domestic market price depression (prices fell to Taka 6-7/kg against production costs of Taka 10/kg) as a result of a bumper local harvest which exceeded domestic consumption requirements by 2 million tonnes, while insufficient cold storage was available to cope with the surplus (The Financial Express-bd.com, Daily Star, 2010). However, this was a short term solution while expanded cold storage facilities are the longer term solution.

There are also concerns about the abuse of the cash incentive programme, both in terms of corruption in obtaining the payments, and the fact that it is seen as being a policy instrument that can easily be used selectively to support particular target/lobby groups. For this reason, continued analyses and debates on this programme remain a priority.

6. Conclusions

The picture often painted of Bangladesh's agricultural trade policy is one of increasing openness to imports on the one hand, but with significant anti-export bias on the other. Associated advice to policy makers tends to be consistent in arguing for further significant reductions in the use of tariffs and associated supplementary duties on imports and a reduction in the implicit taxation of exportables (for which jute has often been used as an example).

In reality however, trade policy has been actively used both in the promotion of the exports of locally produced value added products, and in the management of the staple grains. In terms of exportables, the policy has been relatively consistent, although possibly susceptible to lobby pressures. On the import side, in light of the use of trade policy to alleviate potentially negative impacts on the food security situation, interventions have been more ad hoc in nature.

In practice, both exportables and importables have therefore been subject to the use of instruments associated with trade promotion and trade restriction.

In seeking to explain this pattern of use and to determine its appropriateness, it is necessary to consider the impact of trade policy along the value chain, rather than to focus just on the raw commodity (as tends to be the case when constructing indicators of protection and support). For example, the jute value chain is characterized by significant tariffs on jute and jute products, export restrictions on raw jute and cash incentives to the export of jute products. Similar strategies are used with respect to shrimp and vegetable trade (see for example Deb and Bairagi, 2009).

Cereal trade faces relatively low tariffs in general, but significant use of supplementary duties when grains from key exporters become too competitive at the import parity price (for example following the subsidization of exports by India).

Cereal trade also faces export restrictions, for example with wheat where export bans are relatively longstanding, and rice where they have been temporarily used since 2007 to manage domestic prices in conjunction with the management of food reserves.

The management of staple grains trade has increased significantly following the food price crisis, reflecting a change from the strategy of self reliance that has been in place since the early 1990s to one of self sufficiency. A combination of managed trade and a bumper harvest has sufficed to prevent significantly negative effects from the transmission of high world market prices as well as difficulty in securing imports of rice.

Similarly, selective support to certain exportables also appears to have had positive effects in terms of improving producer incomes, in addition to their contribution to foreign exchange earnings.

It might be argued that the trade policy, although far from liberal, has been used appropriately in minimising the potentially negative effects of "competitive" imports undermining local agricultural production and related industry, while ensuring that staples availability has not been negatively affected. However, there is still concern that an over-emphasis on, and targeting of, some sectors has been to the detriment of other sectors. For example, Hossain and Saha (2010) argue that weaknesses in policy formulation includes an over emphasis on cereal food production which has negatively affected enterprises in the vegetable subsector. This could be particularly pertinent if the argument that factor-neutral technical change could run up against problems of domestic market absorption hold true. This could result in exports needing to be further developed to compensate for the possible slowing of domestic demand (Mandal 2010, pers. Comm.)

In addition, the management of trade through government intervention, although not necessarily negative in aggregate, has in practice caused difficulties for traders. In this respect, greater communication between private traders and government, and the cooperation of the latter in the articulation and implementation of trade policy could improve the impact of trade policy interventions.

These contrasting points of view demonstrate the difficulty of using trade policy in pursuit of the objectives with regard to the agriculture sector's contribution to often multiple and conflicting objectives. However, they do not, as is often argued, necessarily support a case for a more liberal, or uniform approach to agricultural trade policy.

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