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Bangladesh

Grain and Feed Annual

2019

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Report Highlights:
For market year (MY) 2019/20 (May-April), total rice area and production levels are projected to increase slightly to 11.8 million hectares (HA) and 35.3 million metric tons (MMT), assuming good weather and increased yield. MY 2019/20 rice imports are expected to decrease to 500,000 MT due to a higher level of domestic production that largely meets demand. For MY 2019/20, wheat imports are forecast at 6.3 MMT to meet the demand of a growing population, greater diversified use, and expectations of low international prices. Corn imports in MY 2019/20 are also forecast to rise to 2 MMT based on increased feed demand from the expanding poultry sector.

Executive Summary:

For MY 2019/20 (May-April), total rice area and production levels are projected to increase slightly to 11.8 million hectares (HA) and 35.3 million metric tons (MMT), assuming good weather and increased yield due to further cultivation of hybrid and high yield varieties (HYV). In MY 2018/19, total rice area and production are revised down to 11.77 million HA and 34.9 MMT respectively. MY 2019/20 rice imports are expected to rise to 500,000 MMT to fill the supply gap between three rice harvesting seasons. MY 2019/20 wheat area and production are forecast upward to 340,000 HA and 1.15 MMT based on strong prices in MY 2018/19 and good weather. MY 2019/20 corn area and production estimate is up to 445,000 HA and 3.45 MMT due to increased demand in the feed industry to meet consumers' preference for more protein in their diet. For MY 2019/20, corn imports are forecast at 2 MMT because of growing feed demand and expectations of low international prices.

Commodities:
Rice Milled

Production:

For MY 2019/20 (May-April), total rice area and production levels are projected to increase slightly to 11.8 million hectares (HA) and 35.3 million metric tons (MMT), assuming normal weather conditions and increased yield due to greater HYV and hybrid cultivation area. Winter (*Boro)* season rice area is forecast to increase as farmers are expected to switch to rice from wheat and minor vegetables. Contacts believe that farmers will continue cultivating *Boro* season rice considering it to be a comparatively lower risk crop. In MY 2018/19, total rice area and production is revised down to 11.77 million HA and 34.9 MMT.

During the *Boro* season, a significant number of farmers use two seed varieties: BARI Dhan 28 and BRRI Dhan 29, which some contacts believe are becoming more vulnerable to insects and disease. Some farmers use Indian-developed seed varieties because they believe it is hardier or drought tolerant.

Table 1. Bangladesh: *Boro, Aus,* and *Aman* Rice Area and Production Estimates

Rice by Season	2017/18 (Estimate)		2018/19 (Estimate)		2019/20 (Forecast)	
	Area 1,000 HA	Production 1,000 MT	Area 1,000 HA	Production 1,000 MT	Area 1,000 HA	Production 1,000 MT
Boro (Winter)	4,472	17,800	4,752	18,909	4,775 E	19,100 F
Aus (Pre Monsoon)	1,100	2,350	1,145	2,500	1,175 F	2,600 F
Aman (Monsoon)	5,700	12,500	5,873	13,500	5,880 F	13,600 F
Total Rice	11,272	32,650	11,770	34,909	11,830	35,300

***Note:** Boro season rice will be harvested in March-April, 2019 and marketed in May 2019, so rice harvested in Boro season is considered as the first rice crop in Market Year (MY) 2019-20 (May-April). On the other hand, Boro rice in year 2019 is considered as the last rice crop of Fiscal Year (FY) 2018-19 (July-June) in Bangladesh..*

Trade:

MY 2019/20 rice import forecast is projected lower to 500,000 MT due to increased total supplies because of higher production. MY 2018/19 import estimate is down to 575,000 MT because of slow import pace, likely caused by the application of a very high tariff and higher domestic production. Bangladesh primarily imports rice from India and Pakistan. India has been the largest supplier in recent years.

Stocks:
According to the Ministry of Food (MOF), as of March 19, 2019, public rice stocks are 1.37 MMT, which is approximately 33 percent higher than last year. From December 1, 2018 to March 3, 2019, the MOF procured 799,966 MT of monsoon (*Aman rice) season* rice at BDT 36 (US$ 0.42) per kilogram.

Table 2. Bangladesh: Stock at public granaries (Thousand MT)

18 March 2019			18 March 2018		
Rice (000 MT)	**Wheat (000 MT)**	**Total (000 MT)**	**Rice (000 MT)**	**Wheat (000 MT)**	**Total (000 MT)**
1367.2	163.05	1530.25	1028.02	364.06	1392.08

Source: MIS&M, Director General of Food, Ministry of Food

Prices:
In March 2019, the retail price for rice was BDT 40 (US$0.47) per kilogram, 9 percent less than last year (See Figure 1). Over the past few months, retail prices have generally remained steady, likely due to recently available local supplies after the beginning of the *Aman* rice harvest in November 2018.

Consumption:
Consumption of unhusked rice is diversified for both human and animal use. Rice consumption and residuals forecast in MY 2019/20 is up to 35.7 MMT due to increased human consumption from a growing population and increased use in the feed industry to meet demand in the burgeoning poultry and livestock industries.

A bag of 40 kg paddy (unhusked rice) in an automatic rice mill produces four types of product and by-products which includes 26 kg of husked rice, 8.7 kg of rice husk, 3.3 kg of rice bran, and 2 kg of broken rice. Rice husk is converted to briquettes for use as biofuel and fuel for steam generation in the mill. Rice bran is used in feed processing and to produce rice bran oil, while broken rice is also used for human consumption and feed processing.

Policy:
The Government of Bangladesh (GOB) has a long term plan to expand rice cultivation in the pre-monsoon (*Aus)* rice season (March-August), as it is cultivated during the rainy season when no supplementary irrigation is required. With the aim to attract farmers to *Aus* rice cultivation, the GOB has announced seed and input support to farmers producing rice in the *Aus* season in FY (July-June) 2019-20. The support package of BDT 41.8 million (US$0.5 million) to cultivate 61,354 hectares of *Aus* paddy representing only 4.49 percent of the total 13,65,412 hectares of targeted *Aus* rice cultivation area, is expected to benefit 459,226 farmers in 64 districts. The support package will enable each farmers to receive BDT 875 (US$10.4) to buy five kilograms of seed, 15 kg of DAP (diammonium phosphate) fertilizer, 10 kg of MOP (muriate of potash) fertilizer, BDT 90 (US$1.07) for transportation, and BDT 20 (US$0.23) for incidental expenses, for a maximum of 0.33 acre (one bigha) of land. As per GOB estimates, this incentive will ensure production of 156,452 MT of rice, worth BDT 5.789 billion (US$ 68.92 million), as well as straw harvest of 246,643 MT worth BDT 246.6 million (US$ 2.94

million). Experts suggest that the GOB should give this support to those farmers who are new to cultivating *Aus* rice. Providing incentives to existing *Aus* rice farmers will likely not ensure success of the program, nor expand real *Aus* rice cultivation area.

The Ministry of Planning published the Seventh Five Year Plan (SFYP) (2016-2020), which provides recommendations for future initiatives in various sectors. For agricultural development, the SFYP emphasizes the use of new or modern agricultural technologies and production methods such as laser guided land levelers, pipe irrigation, drip and sprinkler irrigation, hydroponic vegetable production, urea super granules, and integrated pest management. It also highlights the importance of Good Agricultural Practices (GAP), solar power, saline tolerant *Boro* rice production in the southern and coastal regions, female employment in agriculture, and the development of improved seed varieties for jute, cotton, tea, aromatic rice, and flowers.

Marketing:
Bangladesh typically purchases lower-quality (25 percent or more broken) parboiled rice. A small niche market exists for high quality (e.g. basmati) rice imports. Historically, U.S. rice exports have not been price competitive.

Commodities:
Wheat

Production:
MY 2019/20 wheat area estimate is forecast up to 340,000 HA. Some farmers are expected to plant wheat in place of corn on expectations of higher profit margins and reduced risk of Fall Armyworm (FAW) attack. MY 2019/20 production is estimated at 1.15 MMT assuming favorable weather conditions. For MY 2018/19, Post contacts believe that wheat area is down from the previous year due to the problem of wheat blast, unfavorable weather, and lower yield. Post lowered production slightly to 1 MMT due to reduced cultivation area. Farmers can choose maize, lentils, onions and garlic as alternative crops. However, *Boro* rice, gram, and potato are not feasible crop alternatives to wheat (Mottaleb *et al.*, 2019)[1].

Imports:
In MY 2019/20 (July-June), wheat imports are forecast at 6.3 MMT with an expectation of increased diversified use, consumers' demand, and low international prices. In MY 2018/19, major wheat suppliers include Russia (43%), Ukraine (25%), Canada (14.6%), and the U.S. (13%). MY 2018/19 import forecast is down to 5.5 MMT based on strong international price. MY 2017/18 imports were revised to 6.4 MMT based on customs data.

Wheat imports declined in MY 2018/19 due to a rise in international price as a result of decreased supply from exporting countries. Business insiders expect prices to fall in the international market, with an expected rise in imports during the second half of the market year.

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[1] Mottaleb, K. A., Singh, P K., He, X., Hossain, A., Kruseman, G., Erenstein, O. (2019) Alternative use of wheat land to implement a potential wheat holiday as wheat blast control: In search of feasible crops in Bangladesh, Land Use Policy, 82 (2019) 1-12.

During MY 2018/19 (July-June), Post's contacts noted that the private sector purchased approximately 90 percent of all imports, while the share of GOB's imports is increasing because of low government stocks. Private sector import demand is expected to remain strong in the second half of MY 2018/19. The GOB planned to import 550,000 MT in FY 2018/19, and procured 50,000 MT of local wheat, less than the previous year, due to lower domestic production. The GOB has announced an international tender for milling wheat imported through several tranches, at 50,000 MT for each tranche.

Stocks:
According to the MOF, as of March 19, 2019, public wheat stocks are estimated at 163,250 MT, which is 55 percent lower than last year. In order to increase stocks, the GOB has decided to import wheat as opposed to buying large quantities from local farmers.

Prices:
In March, 2019, the average retail price of loose wheat flour (*atta*) was BDT 32 (US$0.39) per kilogram (See Figure 2). Wholesale and retail market prices of packaged wheat flour (*atta*) (per kilogram) were 32 and 14 percent higher than loose flour (*atta*). Though international wheat prices are higher, sufficient stocks from last year have kept domestic wheat flour prices lower over the last few months.

Consumption:
The wheat consumption forecast is raised to 7.7 MMT in MY 2019/20, assuming more consumption of processed foods made from wheat flour. The consumption of wheat is increasing due to changing consumer behavior as a result of increased per capita income and improved socio-economic conditions at the household level in urban areas. With increased industrialization and associated labor in urban areas, consumption of processed confectionaries has increased significantly. Because of increased market demand, newer brand and non-brand processed food industries are setting up in urban and peri-urban areas, thereby gradually increasing demand for wheat flour.

Marketing:
Bangladesh is a very price sensitive market. Although Bangladeshi importers may be willing to pay an additional $10 to $15 per ton CIF (cost, freight, and insurance) for premium wheat, this mark-up usually is not enough to cover freight from distant origins. As a result, premium wheat from the United States is generally uncompetitive. Likewise, longer delivery periods also create problems for some buyers.

The GOB does not accept a certificate from the country of export certifying weight and quality (e.g., FGIS' Official Export Inspection Certificate). This creates significant uncertainty for U.S. exporters as weight and quality are decided at final discharge. As a result, participation from U.S. traders in GOB tenders generally remains low.

Commodity:
Corn

Production:
Post's MY 2019/20 (May-April) planted corn area estimate is raised to 445,000 HA, while the production forecast estimate is down to 3.47 MMT assuming normal weather conditions during the season. Due to FAW attack on corn fields, the possibility of a reduced harvest is higher, but current

FAW presence information is insufficient to forecast possible corn production loss. In MY 2018/19, the production estimate is revised higher to 3.5 MMT based on adjusted cultivation area.

The presence of FAW (Spodoptera frugiperda) has been identified in about 46 hectares of corn fields, comprising 70 sub-districts in 22 districts located in northern, central, and eastern parts of the country. The GOB formed a national taskforce and initiated an emergency contingency plan to work with farmers to raise awareness and train farmers on integrated pest management techniques. By using sex pheromone traps through Integrated Pest Management (IPM) techniques, presence, identification, and monitoring has continued from November 2018. The Department of Agricultural Extension (DAE), Ministry of Agriculture (MOA) is intensively working with farmers to identify and take measures that are followed internationally to eradicate this invasive pest. The Entomology Division of Bangladesh Agricultural Research Institute (BARI) suggested mitigations measures including integration of mechanical control, mass trapping of S. frugiperda adults (setting sex pheromone traps @ 40 traps/ha), application of microbial pesticide Sf NPV, spraying of bio-pesticide and chemical pesticides, etc. As of now, two bio-pesticide companies have submitted applications to the Plant Protection Wing (PPW) of DAE for registration and importation of sex pheromone lures. Two other companies also applied for registration of chemical pesticides which are currently undergoing trials.

Price:

Corn retail prices remained somewhat stable over the three months preceding March. However, as of March, 2019, corn wholesale prices were observed at BDT 18 (US$0.21), which is lower than the prior three month, and lower by 21.89% on the year (See Figure 3).

Consumption:

Expansion of the livestock and fisheries sectors have created further demand for corn which is supplied by both domestic production and imports. In MY 2019/20, corn consumption is projected to grow 1.9 percent to 5.4 MMT, assuming a normal pace in corn use for feed in the poultry, aquaculture, and livestock sectors.

The poultry sector is gearing up to export eggs and poultry meat by 2024, especially to the Middle East, a large market for halal meat. Currently, BDT 350 billion (US$4.16 billion) worth of investment is expected to double in the next decade. Approximately one million entrepreneurs and eight million people are involved in the poultry sector. The poultry sector supplies 36% of total protein intake through meat and egg consumption. Yearly, 95 eggs are eaten per capita, while consumption of chicken stands at 6.5 kg. The annual commercial production of eggs and poultry meat are 10.22 billion eggs and 1.46 million tons respectively. The country will require 17 billion eggs, 2 million tons of poultry meat, 85.8 million day-old chicks, and 7.9 million MT of feed to meet demand by 2021.

Total poultry farms of all sizes number about 65-70,000 and are growing at the rate of 15 percent per year. Aquaculture farms number about 2 million, while the area under production (metric tons per hectare) is increasing at 5.7% per year.

Total feed demand is supplied by domestic feed industries (96%), followed by imported feed (2%), and homemade mix (2%). There are 203 GOB registered feed mills and more than 200 unregistered mills in the country, while 82 mills are members of the Feed Industries Association Bangladesh (FIAB). The investment in poultry feed production is about BDT 120 billion (US$1.4 billion). The fully automated feed mills, and other small and medium feed mills produce 7.26 MMT of feed for the livestock sector, including poultry (3.61 MMT), cattle (2.22 MMT), and aquaculture (1.43 MMT). A business researcher, Light Castle, reported that within the feed industry, feed for fattening cattle is expected to grow by 15.5 percent, while dairy cattle feed will grow by 11.5 percent by 2024.

Raw materials used for poultry feed production include maize (55-65 percent), soybean meal (20-25 percent), mustard oil cake (10-25 percent), rice bran (10-20 percent), and meat and bone meal (10-20 percent).

Trade:
Post's MY 2019/20 corn import forecast is up to 2 MMT on lower stocks force to import to supply growth of the animal feed industry. In MY 2018/19, estimated corn imports are down to 1.8 MMT as domestic production is capably supplying the expanding poultry and aquaculture sectors.

Stock:
There is no GOB official information for corn stocks. The GOB does not procure corn locally. There are no corn producers or traders associations to share stock information at the producer or wholesale level.

Table 3. Bangladesh: Commodity, Milled Rice, PSD
(Area in Thousand Hectares, Quantity in Thousand Metric Tons)

Rice, Milled	**2017/2018**		**2018/2019**		**2019/2020**	
Market Begin Year	**May 2017**		**May 2018**		**May 2019**	
Bangladesh	**USDA Official**	**New Post**	**USDA Official**	**New Post**	**USDA Official**	**New Post**
Area Harvested	11,272	11,272	11,770	11,770	0	11,830
Beginning Stocks	854	854	1,500	1,862	0	1,842
Milled Production	32,650	32,650	35,000	34,909	0	35,300
Rough Production	48,980	48,980	52,505	52,369	0	52,955
Milling Rate (.9999)	6,666	6,666	6,666	6,666	0	6,666

MY Imports	3,200	3,562	350	575	0	500
TY Imports	1,400	1,667	300	500	0	500
Total Supply	36,704	37,066	36,850	37,346	0	37,642
MY Exports	4	4	4	4	0	4
TY Exports	4	4	4	4	0	4
Consumption and Residual	35,200	35,200	35,500	35,500	0	35700
Ending Stocks	1,500	1,862	1,346	1,842	0	1938
Total Distribution	36,704	37,066	36,850	37,346	0	37642
Yield (Rough)	4.35	4.35	4.46	4.45	0.00	4.4763

Note: Market Year (MY) – May to April and Trade Year (TY) – January to December

Table 4. Bangladesh: Commodity, Wheat, PSD
(Area in Thousand Hectares, Quantity in Thousand Metric Tons)

Wheat	**2017/2018**		**2018/2019**		**2019/2020**	
Market Begin Year	**July 2017**		**July 2018**		**July 2019**	
Bangladesh	**USDA Official**	**New Post**	**USDA Official**	**New Post**	**USDA Official**	**New Post**
Area Harvested	370	351	395	320	0	340
Beginning Stocks	1883	1883	1686	1996	0	956
Production	1153	1153	1250	1060	0	1150
MY Imports	6150	6460	5500	5500	0	6300

TY Imports	6150	6460	5500	5500	0	6300
Total Supply	9186	9496	8436	8556	0	8406
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	0	0	0	0	0	0
FSI Consumption	7500	7500	7400	7600	0	7700
Total Consumption	7500	7500	7400	7600	0	7700
Ending Stocks	1686	1996	1036	956	0	706
Total Distribution	9186	9496	8436	8556	0	8406
Yield	3.1162	3.2849	3.1646	3.3125	0	3.3824

Note: Market Year (MY) and Trade Year (TY) – July to June

Table 5. Bangladesh: Commodity, Corn, PSD
(Area in Thousand Hectares, Quantity in Thousand Metric Tons)

Corn	2017/2018		2018/2019		2019/2020	
Market Begin Year	May 2017		May 2018		May 2019	
Bangladesh	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	436	436	450	450	0	445
Beginning Stocks	137	137	187	235	0	235
Production	3274	3274	3500	3500	0	3475
MY Imports	1476	1524	2000	1800	0	2000
TY Imports	1145	1145	2000	1800	0	2000
Total Supply	4887	4935	5687	5535	0	5710
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	4400	4400	5000	5000	0	5100
FSI Consumption	300	300	300	300	0	300
Total Consumption	4700	4700	5300	5300	0	5400
Ending Stocks	187	235	387	235	0	310
Total Distribution	4887	4935	5687	5535	0	5710
Yield	7.51	7.51	7.78	7.78	0.00	7.81

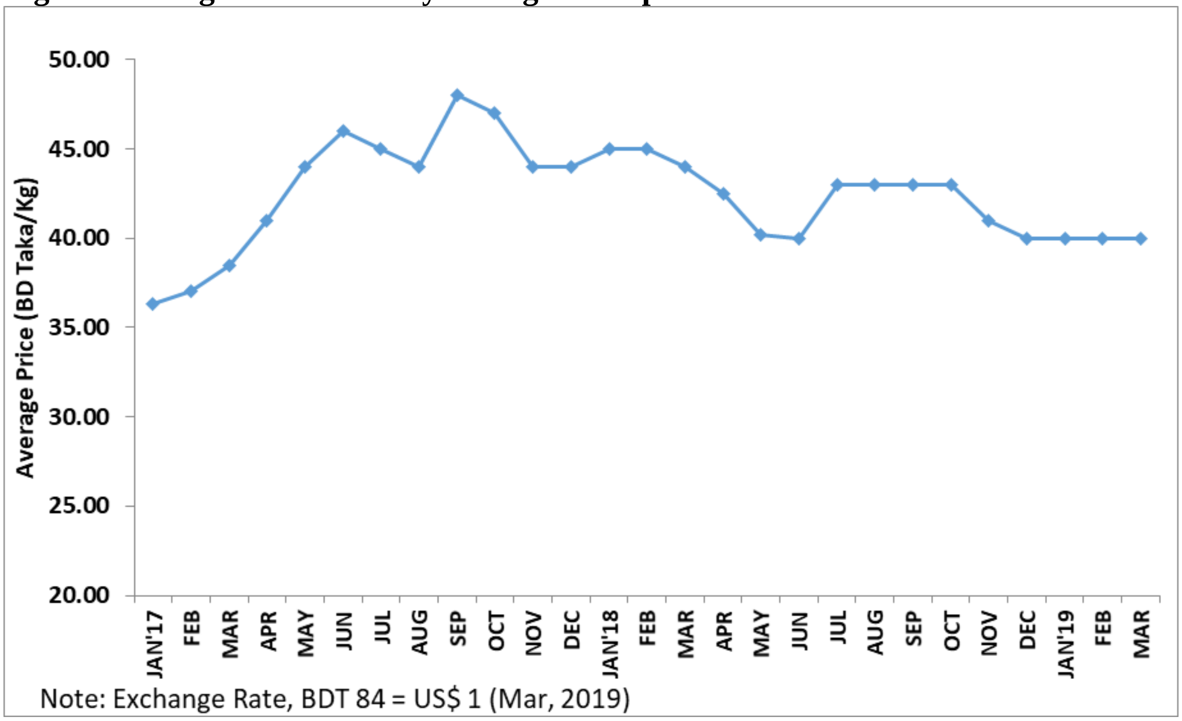
Note: Market Year (MY) – May to April and Trade Year (TY) – October to September

Table 6. Bangladesh: *Boro* rice competes with the alternative crops

General Crop Season	Competing Crops	Rice Based Season
Robi (Mid Oct – Mid Mar)	*Boro* season rice, potato, wheat, maize, sugarcane, cotton, mustard, lentils, onions, soybeans, groundnut, tobacco, and vegetables	*Boro Season Rice (Boro Rice)* Planting: Dec-Feb Harvesting: Apr-May
Kharif-1 (Mid Mar – Mid Jul)	*Aus* season rice, jute, maize, mungbean, ginger, chili, onions, groundnuts and vegetables	*Aus Season Rice (Aus Rice)* Planting Apr-May Harvesting: Jul-Aug
Kharif-2 (Mid Jul – Mid Oct)	*Aman* season rice, cotton, jute, black gram, and soybeans	*Aman Season Rice (Aman Rice)* Planting: Jul-Aug Harvesting: Nov-Dec

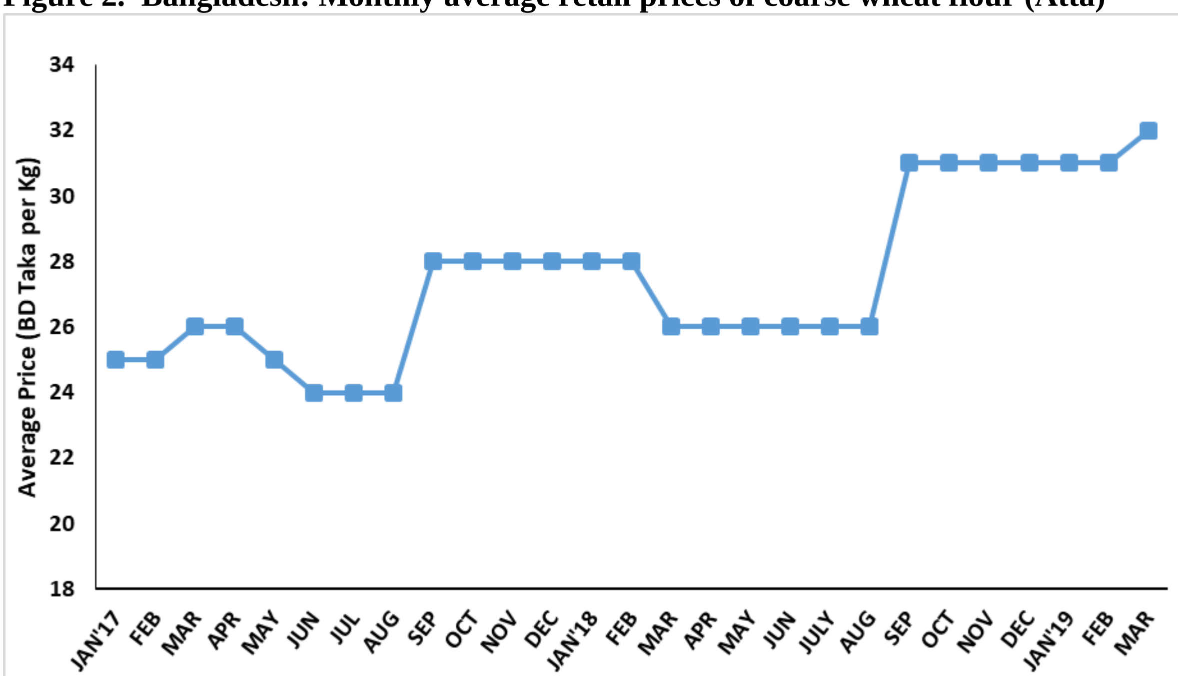
Source: Crop Calendar of Krishi (Agriculture) Diary, Ministry of Agriculture

Figure 1. Bangladesh: Monthly average retail prices of coarse rice



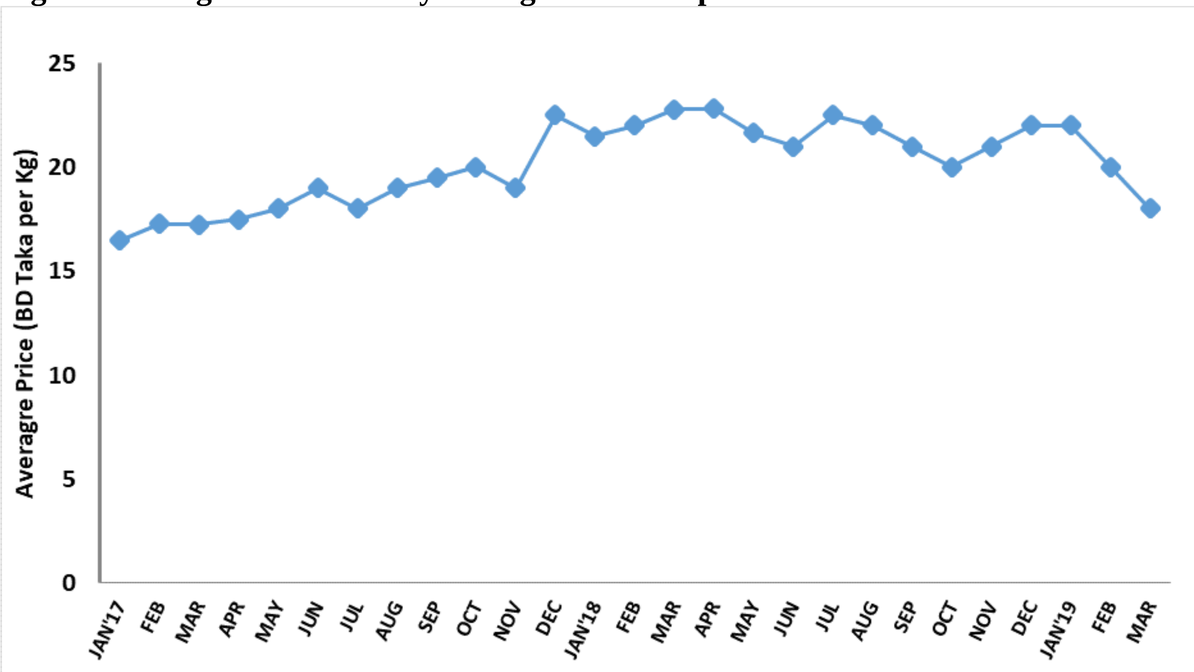
Source: Trading Corporation of Bangladesh

Figure 2. Bangladesh: Monthly average retail prices of coarse wheat flour (Atta)



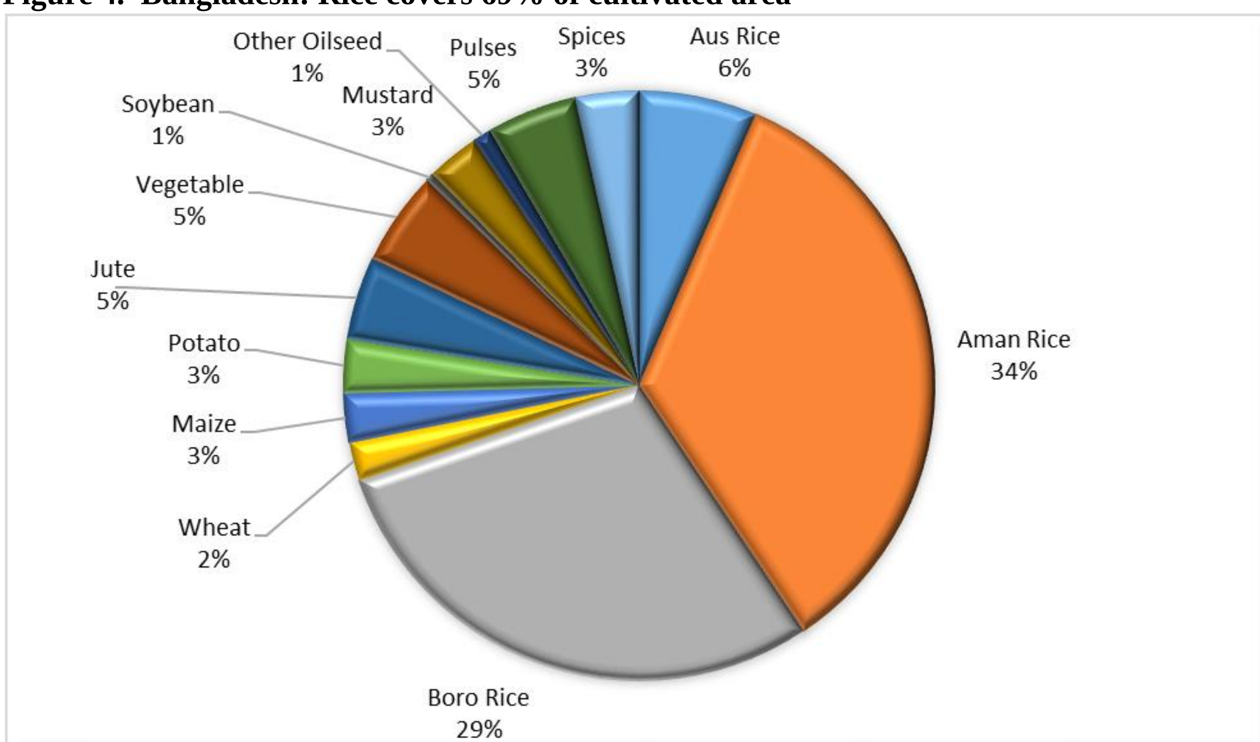
Source: Trading Corporation of Bangladesh

Figure 3. Bangladesh: Monthly average wholesale prices of corn



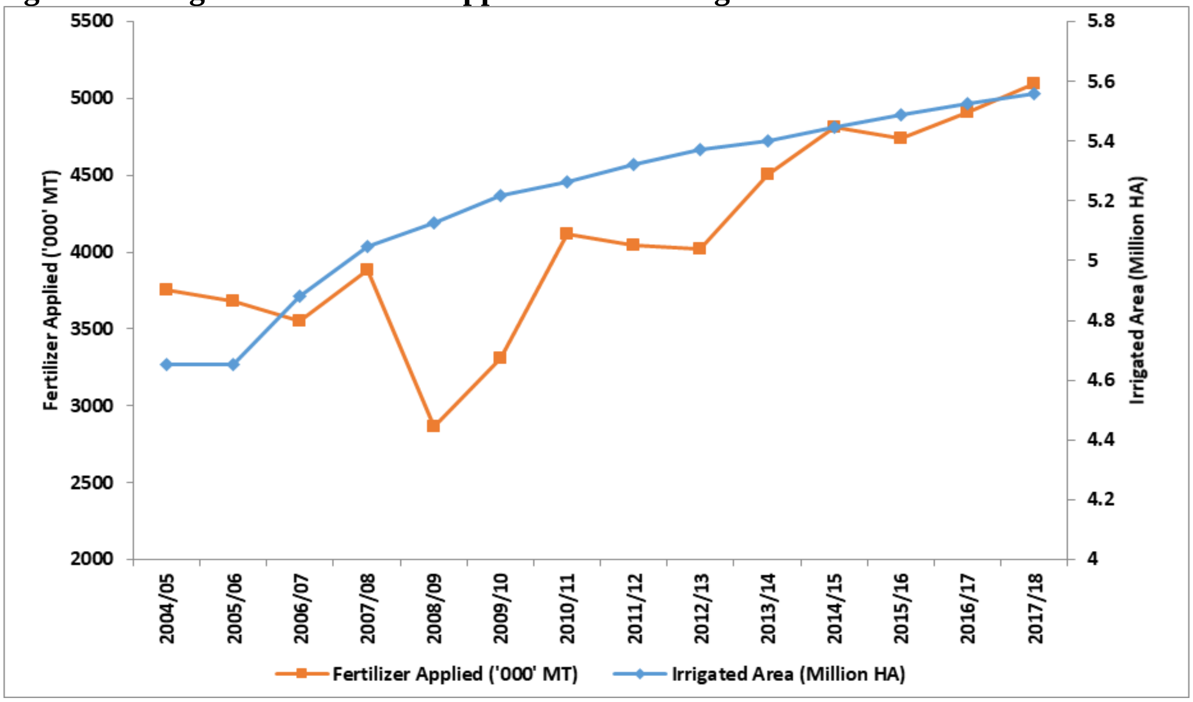
Source: Ministry of Agriculture

Figure 4. Bangladesh: Rice covers 69% of cultivated area



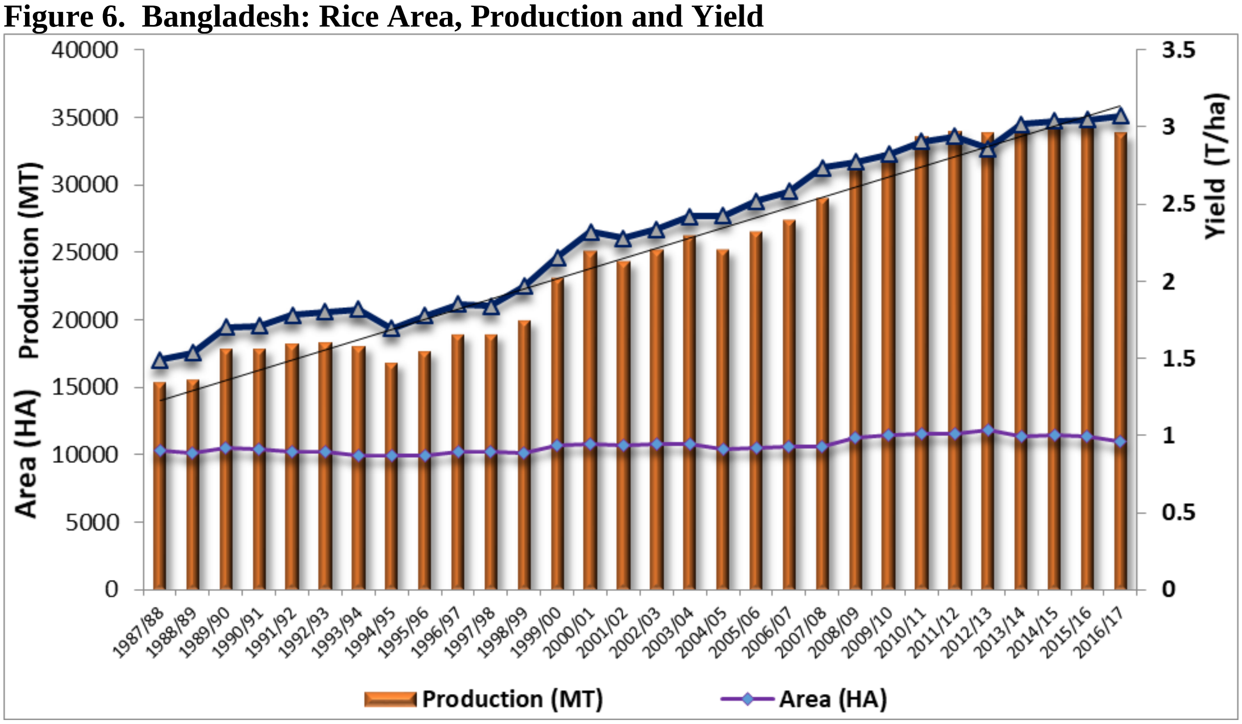
Source: Bangladesh Bureau of Statistics

Figure 5. Bangladesh: Fertilizer application and irrigated area



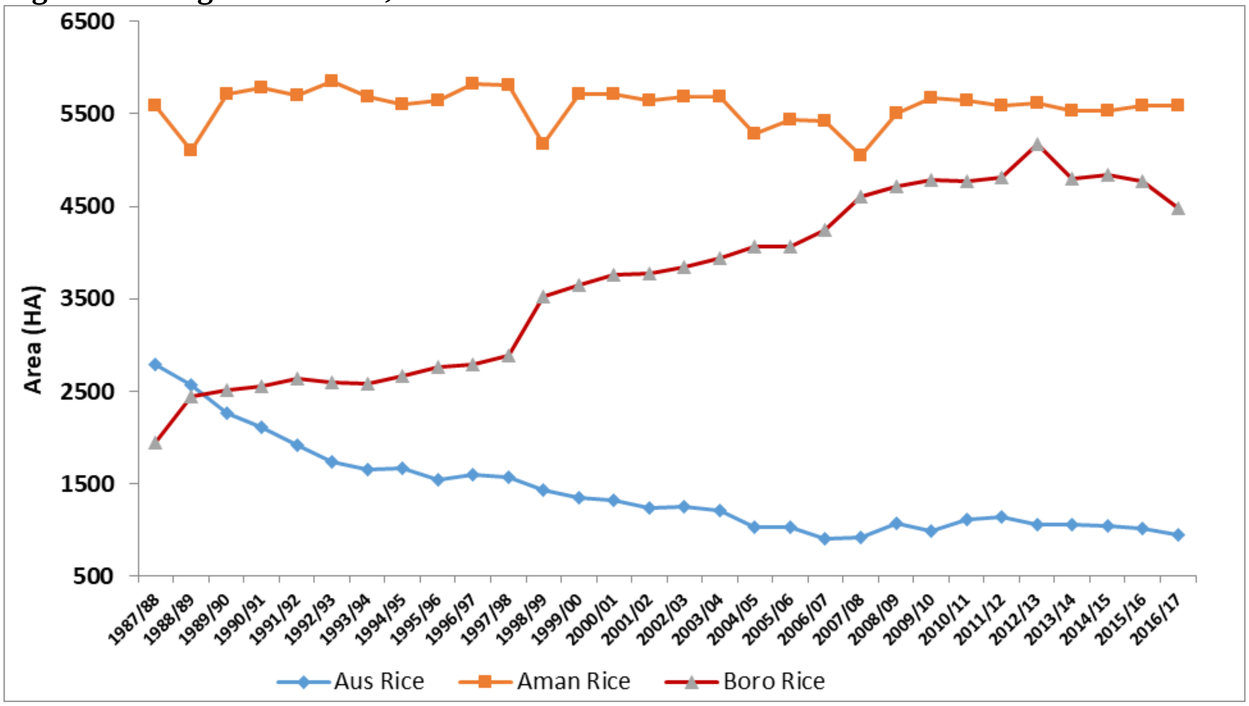
Source: Ministry of Agriculture

Figure 6. Bangladesh: Rice Area, Production and Yield



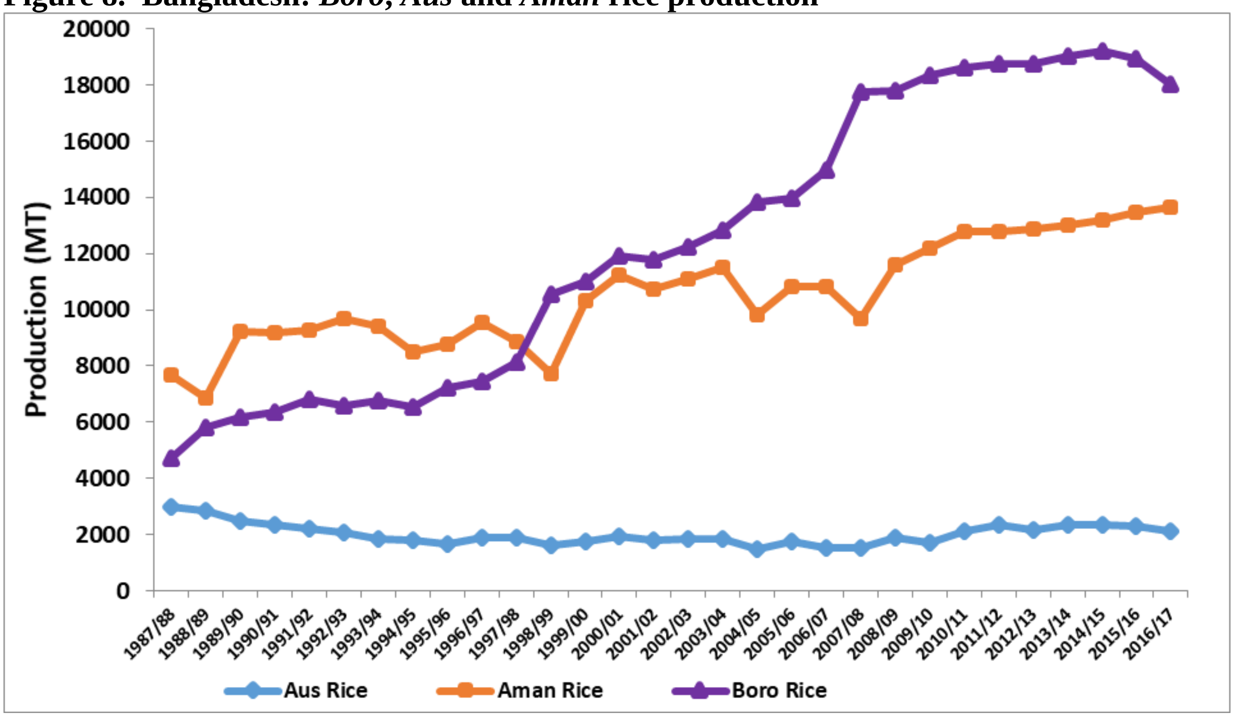
Source: Bangladesh Bureau of Statistics

Figure 7. Bangladesh: *Boro*, *Aus* and *Aman* rice cultivated area



Source: Bangladesh Bureau of Statistics

Figure 8. Bangladesh: *Boro*, *Aus* and *Aman* rice production



Source: Bangladesh Bureau of Statistics

Table 7. Bangladesh: Comparative financial profitability of rice on various planting season

Item	Aus Season Rice	Aman Season Rice	Boro Season Rice
Total cost (BDT/ha)	83,398	89,686	121,499
Total paid-out cost (BDT/ha)	61,749	59,367	90,324
Total imputed cost (BDT/ha)	21,649	30,319	31,175
Yield (kg/ha)	4,262	4,621	5,883
Market value of paddy (BDT/ha)	85,240	94,731	102,953
Gross benefit (BDT/ha)	91,552	107,071	111,715
Gross margin (BDT/ha)	29,803	47,704	21,391
Net return (BDT/ha)	8,154	17,384	-9,785
Unit price of grain (BDT/kg)	20.0	20.5	19.5
Unit price of production (BDT/kg)	19.6	19.4	20.7
Benefit Cost Ratio (Gross Benefit/Total Cost)	1.1	1.2	0.92

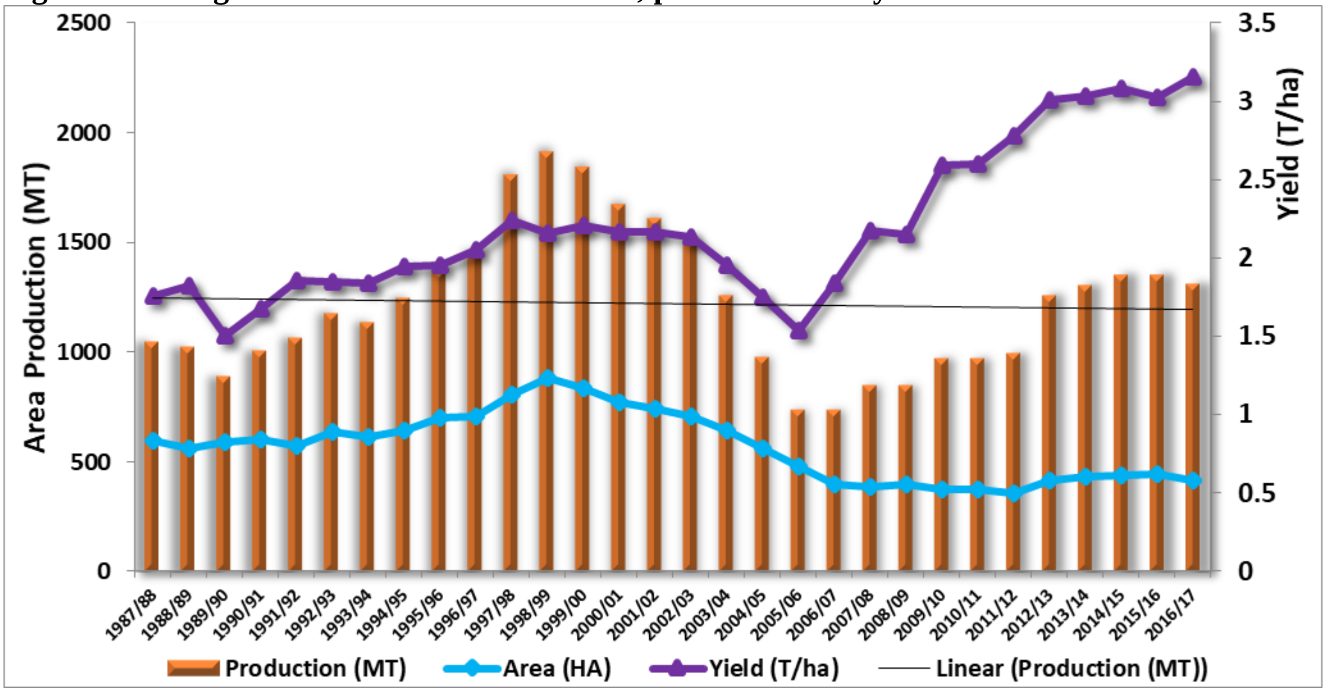
Source: Annual Research Report, 2017-18, Bangladesh Rice Research Institute

Figure 9. Bangladesh: Rice Aid and Public-Private Import

Source: Economic Review, Directorate of Food, Ministry of Food and Disaster Management.
Note: (1). Rice import (left axis) includes private sector import side by side with public sector since 1992-93.

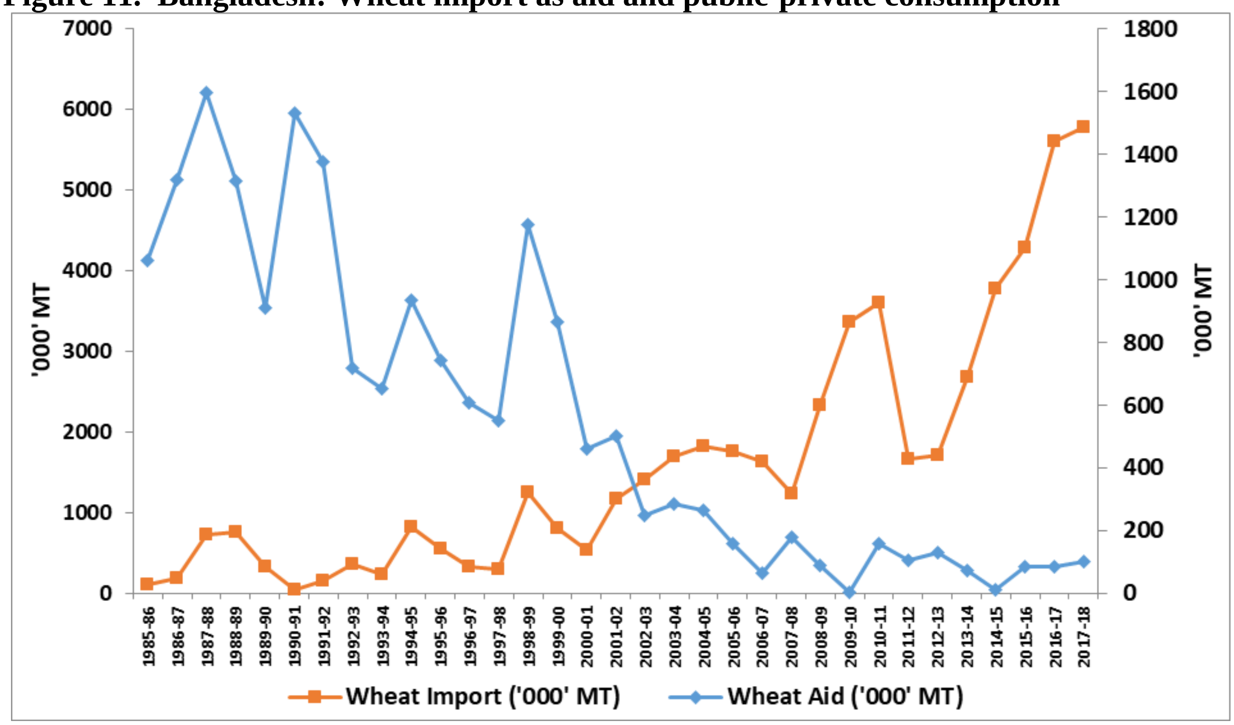
(2). Rice aid (right axis) includes food aid receipts for direct distribution by World Vision since 2000-01

Figure 10. Bangladesh: Wheat cultivated area, production and yield



Source: Bangladesh Bureau of Statistics

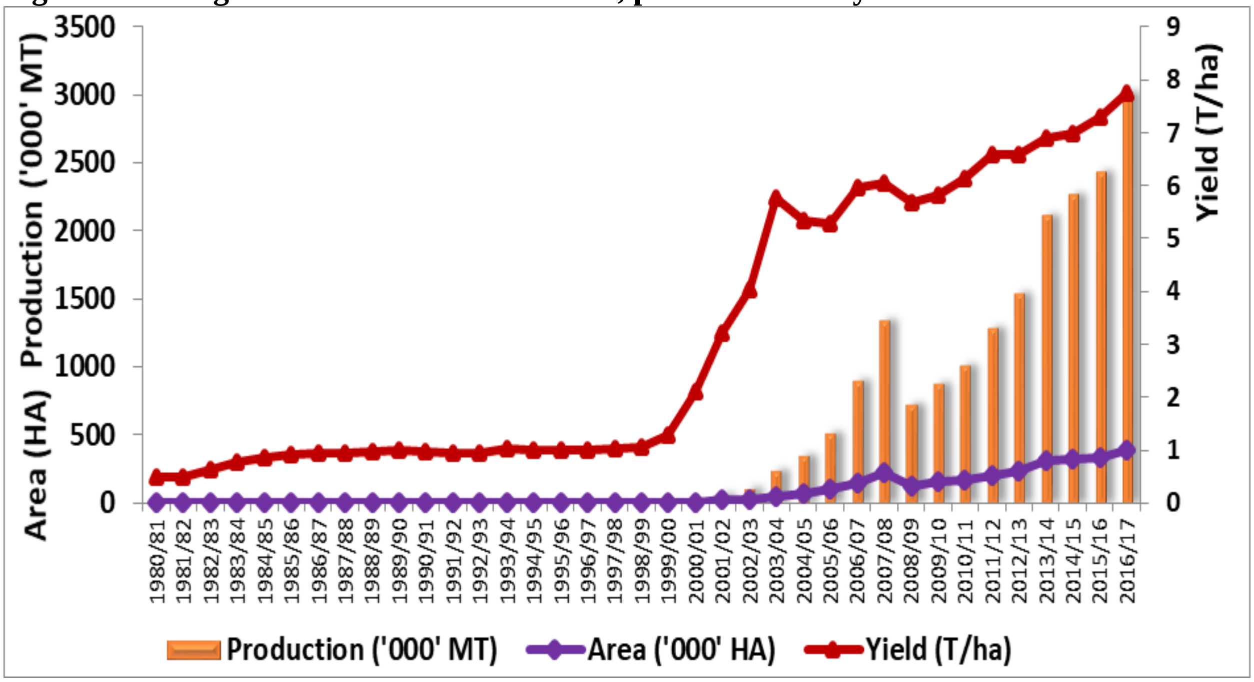
Figure 11. Bangladesh: Wheat import as aid and public-private consumption



Source: Economic Review, Directorate of Food, Ministry of Food and Disaster Management.
Note: (1). Wheat imports (left axis) includes private sector import side by side with public sector since 1992-93.

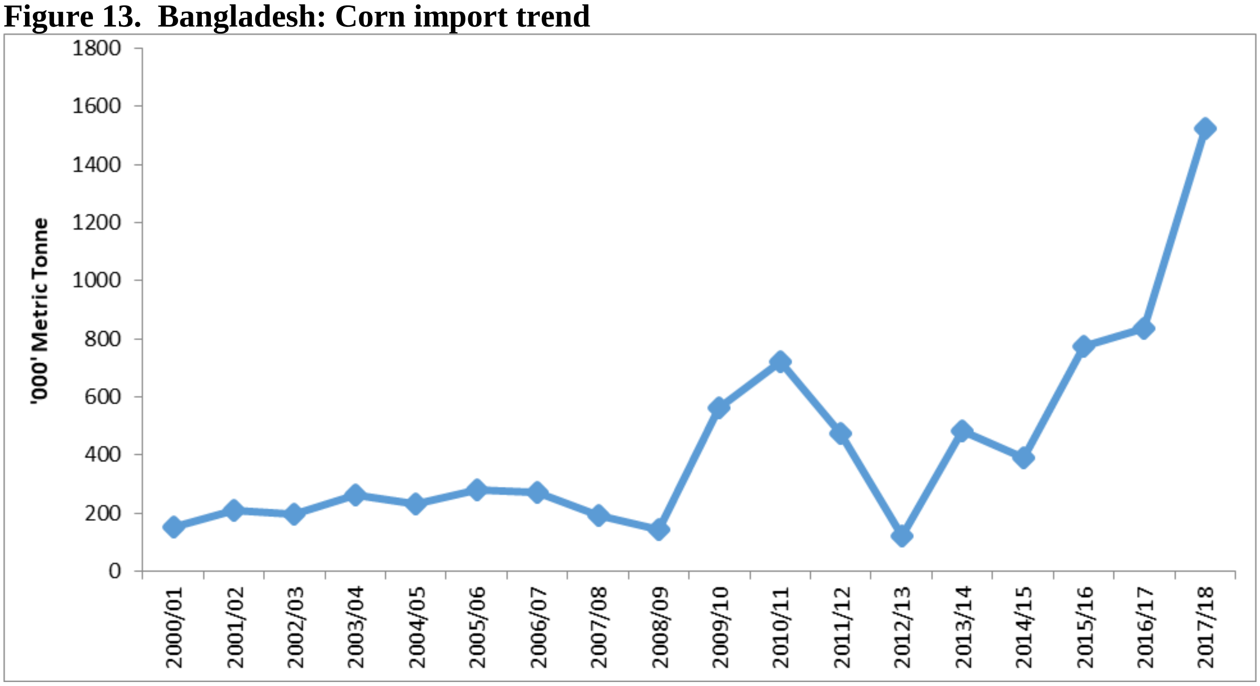
(2). Wheat aid (right axis) includes food aid wheat receipts for direct distribution by World Vision since 2000-01

Figure 12. Bangladesh: Corn cultivated area, production and yield



Source: Bangladesh Bureau of Statistics

Figure 13. Bangladesh: Corn import trend



Source: USDA

Table 8. Bangladesh: Distribution pattern of govt. stock

Programs	2018-19 (July 1, 2018 - Mar 7, 2019)			2015-16 (July 1- 30 June)		
	Rice	Wheat	Total	Rice	Wheat	Total
Essential Priority (EP)	135987	89808	225795	134093	87775	221868
Other Priorities (OP)	11510	2673	14183	9931	2230	12161
Large Employee (LE)	1567	9814	11381	2609	9669	12278
Open Market Sale (OMS)	9031	182193	191224	122450	100255	222705
Fair Price (Food friendly Program)	451001		451001	78794	1	78795
4th Class Staff	0	27	27	0	0	0
Freedom fighter	543	484	1027	516	487	1003
Garments	0		0	0	0	0
Other	0		0	0	0	0
Sub-Total	609639	284999	894638	348393	200417	548810
Kabikha (Food for Work)	59419	3781	63200	14043	628	14671
Test Relief (TR)	0		0	1	0	1
Vulnerable Group feeding (VGF)	218411		218411	103096	3	103099
Vulnerable Group Development (VGD)	239115		239115	240673	0	240673
School Feeding	0	1225	1225	0	8440	8440
Gratuitous Relief (GR)	27018		27018	44090	165	44255
Flood Affected (FA)	0			0	0	0
Others	94823	26878	121701	68802	17536	86338
Sub-Total	638786	31884	670670	470705	26772	497477
Grand Total	1248425	316883	1565308	819098	227189	1046287

Note: *Food friendly Program

Source: Director General of Food, Ministry of Food

Table 9: Bangladesh: Livestock population in Bangladesh

FY	Cattle	Buffalo	Sheep	Goat	Chicken	Duck	Total Poultry
	Million	Million	Million	Million	Million	Million	Million
2008-09	22.976	1.304	2.877	22.401	221.394	41.234	262.628
2009-10	23.051	1.349	2.977	23.275	228.035	42.677	270.712
2010-11	23.121	1.394	3.002	24.149	234.686	44.12	278.806
2011-12	23.195	1.443	3.082	25.116	242.866	45.7	288.566
2012-13	23.341	1.45	3.143	25.277	249.011	47.254	296.264
2013-14	23.488	1.457	3.206	25.439	255.311	48.861	304.172
2014-15	23.636	1.464	3.27	25.602	261.77	50.522	312.293
2015-16	23.785	1.471	3.335	25.766	268.393	52.24	320.633

2016-17	23.935	1.478	3.401	25.931	275.183	54.016	329.200
2017-18	24.086	1.485	3.468	26.1	282.145	55.853	337.998

Source: Department of Livestock

Table 10. Bangladesh: Typical feed formula for broiler pellet feed

Types of Raw materials and ingredients	% by quantity
Maize	60%
Soya	25%
Meat and Bone Meal	5%
Rice Polish (DOB)	3-5%
Oil	2%
DCP	1%
CaCO3	1.1%
Vitamin	2-5%
Minerals	0.2%
Methionine	0.2%
Lysine	0.1%
Toxin Binder	0.1%
Sodium bi Carbonate	0.1%

Source: Poultry industry market assessment-Bangladesh, US Soybean Export Council, 2017

Table 11. Bangladesh: Projected feed demand as per different sectors in poultry

Description	2014 (MT/Year)	2015 (MT/Year)	2020 (MT/Year)
Total DOC (Broiler)/Yr	1,036,800	1,140,480	2,000,504
Layer DOC	1,664,832	1,831,315	3,212,290
Commercial Layer + Broiler	**2,701,632**	**2,971,795**	**5,212,794**
PS (Broiler)	357,500	393,250	689,796
PS (Layer)	27,300	30,030	52,675
GP	7,800	15,600	27,364
Total DOC (PS+ GP)	**392,600**	**438,880**	**769,835**
Total (Broiler +Layer + PS+ GP)	**3,094,232**	**3,410,675**	**5,982,629**
Others (Sonali, Fayoumi, cock, country, etc.)	309,423	341,068	598,263
Total	**3,403,655**	**3,751,743**	**6,580,891**

Source: Feed demand Table, BPICC, November 2014

Table 12. Bangladesh: Requirement of feed ingredients (Projected)

Ingredients (Quantity in feed)	2014 (Million MT)	2015 (Million MT)	2020 (Million MT)
Corn/Maize (50-60%)	1.7 - 2.0	1.875 - 2.251	3.290 - 3.948
Meat & Bone meal (3-6%)	0.1 - 0.2	0.112 - 0.225	0.197 - 0.394
Soybean (25-30%)	0.85 - 1.0	0.937 - 1.125	1.645 - 1.974
DDGS (3-5%)	0.1 - 0.17	0.112 - 0.187	0.197 - 0.329
Seed Oil (1-2%)	0.034 - 0.068	0.037 - 0.075	0.065 - 0.131
DORB (3-5%)	0.1 - 0.17	0.112 - 0.187	0.197 - 0.329
Rice polish/bran (4-6%)	0.136 - 0.204	0.150 - 0.225	0.263 - 0.394
Limestone (1-2%)	0.034 - 0.068	0.037 - 0.075	0.065 - 0.131
Medicine (2-2.5%)	6.80 - 8.50	0.075 - 0.930	0.131 - 0.197
Oilseed cake (2-3%)	0.068 - 0.120	0.075 - 0.112	0.394
Others (6%)	0.24	0.225	0.394

Source: Feed requirement table, BPICC, November 2014

Table 13. Bangladesh: Production of fisheries sector

Fiscal Year	Capture (MMT)	Culture (MMT)	Marine (MMT)	Fish (MMT)	Growth (%)
2005-06	0.93	0.92	0.48	2.33	5.08
2006-07	0.98	0.98	0.49	2.44	4.79
2007-08	1.03	1.04	0.50	2.56	5.05
2008-09	1.09	1.10	0.51	2.70	5.39
2009-10	1.03	1.35	0.52	2.90	7.32
2010-11	1.05	1.46	0.55	3.06	5.60
2011-12	0.96	1.73	0.58	3.26	6.54
2012-13	0.96	1.86	0.59	3.41	4.55
2013-14	1.00	1.96	0.60	3.55	4.04
2014-15	1.02	2.06	0.60	3.68	3.84
2015-16	1.05	2.20	0.63	3.88	5.27
2016-17	1.16	2.33	0.64	4.13	6.60
2017-18	1.21	2.4	0.65	4.27	3.44

Source: Ministry of Fisheries and Livestock

Table 14. Bangladesh: Protein production

Fiscal Year	Milk	Meat	Egg
	Million MT	Million MT	Billion
2007-08	2.65	1.04	5.65
2008-09	2.29	1.08	4.69
2009-10	2.37	1.26	5.74
2010-11	2.95	1.99	6.08
2011-12	3.46	2.33	7.30
2012-13	5.07	3.62	7.62
2013-14	6.09	4.52	10.17
2014-15	6.97	5.86	10.99
2015-16	7.27	6.15	11.91
2016-17	9.28	7.15	14.93
2017-18	9.41	7.26	15.52

Source: Ministry of Fisheries and Livestock

Table 15: Bangladesh: Demand, production, availability and deficiency of milk, meat and eggs (FY 2017-18)

Product	Unit	Requirement	Availability	Unit	Demand	Production	Deficiency	Surplus
Milk	ml/day/head	250	158.19	Mill MT	15.029	9.406	5.623	
Meat	gm/day/head	120	122.1	Mill MT	7.214	7.26	0	0.046
Egg	number/year/head	104	95.27	Billion	17.1288	15.52	1.6088	

Source: Department of Fisheries, Ministry of Livestock and Fisheries

Table 16. Bangladesh: Daily per capita food intake

Food Item	2016 Intake (gm)	2010 Intake (gm)	2005 Intake (gm)	2000 Intake (gm)	1995-96 Intake (gm)	2016 Change (%)	2010 Change (%)	2005 Change (%)	2000 Change (%)
Total	975.53	999.99	947.75	893.06	913.8	-2.45	5.51	6.12	-2.27
Rice	367.19	416.01	439.64	458.54	464.3	-11.74	-5.37	-4.12	-1.24
Wheat	19.83	26	12.08	17.44	33.7	-23.73	115.23	-30.73	-48.25
Potato	64.83	70.3	63.3	55.45	49.5	-7.78	11.06	14.16	12.02
Pulses	15.6	14.3	14.19	15.77	13.9	9.09	0.78	-10.02	13.45
Vegetables	167.3	166.08	157.02	140.47	152.5	0.73	5.77	11.78	-7.89
Edible oil	26.75	20.51	16.45	12.82	9.8	30.42	24.68	28.32	30.82
Onion	31.04	22	18.37	15.41	11.6	41.09	19.76	19.21	32.84
Beef	7.54	6.84	7.78	8.3	6.6	10.23	-12.08	-6.27	25.76
Mutton	0.55	0.6	0.59	0.49	1	-8.33	1.69	20.41	-51.00
Chicken/duck	17.33	11.22	6.85	4.5	4	54.46	63.80	52.22	12.50
Eggs	13.58	7.2	5.15	5.27	3.2	88.61	39.81	-2.28	64.69
Fish	62.58	49.5	42.14	38.45	43.8	26.42	17.47	9.60	-12.21
Milk & milk prod	27.31	33.72	32.4	29.71	32.6	-19.01	4.07	9.05	-8.87
Fruits	35.78	44.7	32.54	28.35	27.6	-19.96	37.37	14.78	2.72
Sugar/Gur	6.9	8.4	8.08	6.85	9.2	-17.86	3.96	17.96	-25.54
Fast food	30.77	29.83	24.76			3.15	20.48		
Miscellaneous	80.62	72.78	48.38	55.44	50.9	10.77	50.43	-12.73	8.92

Source: Bangladesh Bureau of Statistics, Household Income and Expenditure Survey, 2016

Table 17. Bangladesh: Growth of GDP and its contributing sector

Fiscal Year	GDP Growth (%)	Agriculture and Forestry (%)	Crops and Forestry (%)	Animal Farming (%)	Forest and Related Service (%)	Fisheries (%)
2005-06	6.67	5.44	6.17	2.15	5.46	5.75
2006-	7.06	6.04	7.00	1.99	5.5	9.41

07						
2007-08	6.01	3.87	3.98	2.21	5.26	7.00
2008-09	5.05	3.09	2.83	2.35	5.54	4.94
2009-10	5.57	6.55	7.57	2.51	5.34	4.6
2010-11	6.46	3.89	3.85	2.59	5.56	6.69
2011-12	6.52	2.41	1.75	2.68	5.96	5.32
2012-13	6.01	1.47	0.59	2.74	5.04	6.18
2013-14	6.06	3.81	3.78	2.83	5.01	6.36
2014-15	6.55	2.45	1.83	3.08	5.08	6.38
2015-16	7.11	1.79	0.88	3.19	5.12	6.11
2016-17	7.28	1.96	0.96	3.31	5.60	6.23
2017-18	7.86	3.47	3.06	3.40	5.51	6.37

Source: Different national statistics publication

Table 18. Bangladesh: Industrial sector's GDP contribution growth

FY	GDP Growth (%)	Manufacturing (%)	Large and Medium scale (%)	Small scale (%)
2005-06	6.67	10.81	11.24	9.14
2006-07	7.06	10.54	10.8	9.48
2007-08	6.01	7.33	7.38	7.15
2008-09	5.05	6.69	6.54	7.3
2009-10	5.57	6.65	6.27	8.17
2010-11	6.46	10.01	11.11	5.67
2011-12	6.52	9.96	10.76	6.58
2012-	6.01	10.31	10.65	8.81

13				
2013-14	6.06	8.77	9.32	6.33
2014-15	6.55	10.31	10.7	8.54
2015-16	7.11	11.69	12.26	9.06
2016-17	7.28	10.97	11.2	9.82
2017-18	7.86	13.4	14.26	9.25

Source: Different national statistics publication

Table 19. Bangladesh: Development indicator's progress

FY	**Investment (% GDP)**			**Per Capita Income (US$)**	**Power Generation Capacity (Megawatt)**	**Food Grain Production (MMT)**	**Average Inflation**
	Public	**Private**	**Total**				
2005-06	5.56	20.58	26.14	543	5245	27.27	
2006-07	5.09	21.08	26.17	598	5202	28.06	9.4
2007-08	4.5	21.7	26.2	686	5305	35.29	12.3
2008-09	4.32	21.89	26.21	759	5719	34.71	7.6
2009-10	4.67	21.57	26.24	843	5823	35.81	6.8
2010-11	5.26	22.16	27.42	928	7264	36.07	10.9
2011-12	5.76	22.5	28.26	955	8716	36.88	8.7
2012-13	6.64	21.75	28.39	1054	9151	37.27	6.8

2013-14	6.55	22.03	28.58	1184	10416	38.17	7.4
2014-15	6.82	22.07	28.89	1317	11534	38.42	6.4
2015-16	6.66	22.99	29.65	1465	14429	39.0	5.9
2016-17	7.26	23.01	30.27	1602	15379	39.69	5.4
2017-18	8.0	23.3	31.2	1751	15953	41.32	5.8

Source: Different national statistics publication

Table 20. Bangladesh: Socio-economic progress at household level

Parameter	HIES 2016			HIES 2010		
	Total	**Rural**	**Urban**	**Total**	**Rural**	**Urban**
Calorie (k. cal/capita/day)	2210.4	2240.2	2130.7	2318.3	2344.6	2244.5
Protein (gm/capita/day)	63.8	63.3	65	66.26	65.24	69.11
Income (US$/household/month)	202	169	286	166	140	239
Income (US$/capita/month)	50	41	73	37	31	54
Consumption per household (US$/month)	195	176	245	159	137	221
Expenditure per household (US$/month)	199	179	249	162	139	225
Credit taken per household (US$)	478	397	756	407	316	784
Access to household electricity (%)	75.92	68.85	94.01	55.26	42.49	90.1
Beneficiaries in Social safety net program (%)	28.7	35.7	10.9	24.6	30.1	9.4

Source: Bangladesh Bureau of Statistics

Table 21. Bangladesh: CPI and Food, Non-Food inflation

FY	Index			Inflation (point to point)		
	General	**Food**	**Non-Food**	**General**	**Food**	**Non-Food**

2005-06	100	100	100			
2006-07	109.39	111.63	106.51	9.39	11.63	6.51
2007-08	122.84	130.3	113.27	12.3	16.72	6.35
2008-09	132.17	140.61	121.36	7.6	7.91	7.14
2009-10	141.18	149.4	130.66	6.82	6.25	7.66
2010-11	156.59	170.48	138.77	10.92	14.11	6.21
2011-12	170.19	183.65	152.94	8.69	7.73	10.21
2012-13	181.73	193.24	166.97	6.78	5.22	9.17
2013-14	195.08	209.79	176.23	7.35	8.56	5.55
2014-15	207.58	223.8	186.79	6.41	6.68	5.99
2015-16	219.86	234.77	200.66	5.92	4.9	7.43
2016-17	231.82	248.9	209.92	5.44	6.01	4.61
2017-18	244.17	259.86	219.21	5.69	6.90	3.48

Source: Economic Review, Ministry of Finance

Table 22. Bangladesh: Tariff structure of rice import based on FY 2017/18

HS Code	Items	CD	SD	VAT	AIT	RD	ATV	TTI
10061 010	Rice in the husk (paddy or rough) wrapped/canned up to 2.5 kg				5			5
10061 090	Rice in the husk (paddy or rough) Excl. wrapped/canned up to 2.5 kg				5			5
10062 000	Husked (Brown) Rice	25				3		28
10063 010	Semi-Milled or Wholly Milled Rice	25		15	5	3		60.31
10063 090	Semi-Milled or Wholly Milled Rice	25				3		28
10064 000	Broken Rice	25		15	5	3		60.31

Note: CD – Custom duty, SD – Supplementary duty, VAT – Value added tax, AIT – Advance Income Tax RD – Regulatory duty, ATV – Advanced Trade VAT, TTI – Total tax incidence.
Source: https://www.bangladeshtradeportal.gov.bd/

Table 23. Bangladesh: Tariff structure wheat based on FY 2017/18

HS Code	Items	CD	SD	VAT	AIT	RD	ATV	TTI
1001 1110	Durum wheat Seed, Wrapped/canned up to 2.5 kg	5					5	11.65
1001 1190	Durum wheat Seed, EXCL. Wrapped/canned up to 2.5 kg							
1001 1910	Durum wheat, Other than Seed, Wrapped/canned up to 2.5 kg	5		15			5	27.4
1001 1990	Durum wheat, Other than Seed, EXCL. Wrapped/canned up to 2.5 kg							
1101 0010	Wheat or Meslin Flour, wrapped/canned up to 2.5 kg	10			5		5	21.97
1101 0090	Wheat or Meslin Flour, Excl. wrapped/canned up to 2.5 kg	10			5		5	21.97
1108 1100	Wheat Starch	15		15	5	10	5	56.67
1109 0000	Wheat Gluten, Whether or Not Dried	25		15	5	3	5	60.31
1902 1100	Uncooked Pasta, Containing Eggs, Not Stuffed	25	30	15	5	3	4	104.79
1902 3000	Other Pasta, Nes.	25	30	15	5	3	5	106.9

Note: CD – Custom duty, SD – Supplementary duty, VAT – Value added tax, AIT – Advance Income Tax RD – Regulatory duty, ATV – Advanced Trade VAT, TTI – Total tax incidence
Source: https://www.bangladeshtradeportal.gov.bd/

Table 24. Bangladesh: Tariff structure of corn import based on FY 2017/18

HS Code	Items	CD	SD	VAT	AIT	RD	ATV	TTI
10051 010	Maize Seed, wrapped/canned up to 2.5 kg							
10051 090	Maize Seed, Excl. wrapped/canned up to 2.5 kg							
10059 010	Other Maize, wrapped/canned up to 2.5 kg				5			5
10059	Other Maize, Excluding				5			5

090	wrapped/canned up to 2.5 kg							
11022 000	Maize (Corn) Flour	15		15	5	10	5	56. 67

Note: CD – Custom duty, SD – Supplementary duty, VAT – Value added tax, AIT – Advance Income Tax RD – Regulatory duty, ATV – Advanced Trade VAT, TTI – Total tax incidence
Source: https://www.bangladeshtradeportal.gov.bd/

Table 25. Bangladesh: GOB's support to the rice farmers

Date Announced	Agricultural Season	Support for Production	Support Type (Per farmer)	Amount (BDT Million)	Amount (US$ Million)	Farmers Number
March 2019	*Aus* Rice	HYV *Aus*	BDT 875 (US$ 10.4)	41.8	0.5	459,226

Source: Ministry of Agriculture

Table 26. Bangladesh: Area for development identified in Seventh Five Year Plan (FY 2016-2020)

Crops	Livestock	Fisheries	Cross cutting issues
Creating opportunities for Sustainable agriculture and green growth	Dairy and poultry development	Open water fisheries management	Weather prediction and forecasting
Application of science and technology for higher levels of food production	Meat production	Inland aquaculture	Research, gender and HRD
Agricultural research	Breed	Shrimp and coastal	Pest disease

	development	aquaculture	management and bio-control of pest
Crop zoning and Land use planning	Livestock research	Marine fisheries and exploring blue economy	Agriculture credit
Agricultural inputs-seeds and fertilizers	Veterinary services and animal health		Value chain development
Promotion of precision agriculture	Feeds, fodder and animal management		Boosting agro-processing industries
Promoting agriculture diversification and expansion of horticulture crop	Hides and skins		Mainstreaming women in agriculture
Use of water resource and water economy			Seaweeds as foods and for disease control
Farm mechanization			
Good agriculture practice			