

2.7 Bangladesh Milling Assessment

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Overview

The public food operation of Bangladesh is based on a set of policies and an organizational structure designed to carry out these policies. The system is administered through the Ministry of Food, with Secretary as its administrative head. The Ministers of Food, Agriculture, Finance, Planning and finally the Head of State make major policy decisions at the highest level. Initiations for changes in policies come from any of these ministries, even though the Food Ministry conducts the formal processing. The Secretary initiates the formulation of policies and maintains overall supervision of the system. The Director General of Food (DGF) as head of the Food Department manages the system; the primary organization consists of a number of branches entrusted with the task of distribution, procurement, storage and movement, finance and accounts and inspection and control.

As a price stabiliser Public Food grains Distribution System (PFDS) acts as a buffer stock agency, buying paddy, rice and wheat when prices are low and later supplying that food grain to the market when prices are high. The system has undergone various changes in respect of objectives, structure, functioning and size of operation during the past four decades. The year-to-year operations vary substantially. The variations are partly caused by increased requirement for cereals resulting from natural disasters.

The public food operation started declining in the nineties in the wake of the emerging food grain market and trade in Bangladesh. The current commitment of Bangladesh Government to food market liberalisation policy is a striking feature of the political and economic scene. The PFDS includes a variety of programs that make use of the food aid and other food resources made available by the Government. Domestic rice procurement serves the dual purposes of building rice stocks for the PFDS and of providing income support to farmers. To fulfill the greater objective the government provides a higher price than the cost of production of paddy to ensure that farmers do not produce at a loss. At present the govt purchase 0.15 million c MT of paddy directly from the farmers, but the govt has decided to buy 1 million MT of paddy from the farmers And accordingly another 200 silos (each 5,000 MT capacity) are being constructed in different places of the country.

Food processing in Bangladesh

Food processing industry is a 4.5 billion USD industry in Bangladesh

Bangladesh has strong growing food processing sector, which heavily relies on domestic agricultural production and mainly focuses on serving domestic demands. Despite having good potential for high volume export, these potentials have not been exploited to the fullest. The food processing includes rice and wheat milling, sugar refining, production of edible oils, processing and preserving of fruits and fruit juices as well as fish processing, both white fish and shrimps.

Processed food represents one of the major potential sectors in terms of its contribution to value addition and employment. The sector accounts for over 22% of all manufacturing production and employs about 20% of the labour force. All food processing enterprises account for 5% of GDP (around 4.48 bill USD).

There are nearly 700 processed food manufacturing enterprises in the country. These include processing of bakery confectionary, fruits and vegetables, cereals, dairy, carbonated and non carbonated fruits juices, drinks, others beverages and various other food products.

Milling and procurement of rice

All rice is purchased from local mills under the supervision of the Directorate of Food on the basis of policies and strategies drawn up by the Food Planning and Monitoring Committee (FCMC). Most of the mills in Bangladesh are located in Dinajpur district and other northern districts around the vicinity of CSDs. Small growers sell their production to rice millers at the prevailing market price. Growers are not in a position to comply with various specifications laid down by FCMC for purchase of paddy due to lack of infrastructure. Hence it is easier and more convenient for them to sell their stocks directly to the mills. Those mills purchase rice from local traders/farmers, process them, mill them and finally supply to the govt agency (DG Food) as per the contracted terms and conditions.

Specifications laid for procurement of rice are provided in the table below:

Refractions	Specifications
Moisture	14% max
Foreign matters	0.5% max
Immature, shriveled grain	1% max
Discoloured grain	1% max
Dead and damaged grain	1% max
Contrasting varieties	10% max
Big broken (Parboiled Rice) (Below ¼ size)	12% max
Small broken (Parboiled Rice) (Below ¼ size)	3% max
Big broken (Atap Rice) (Below ¾ size to ¼ size)	20% max

Small brokens (Atap Rice) (Below ¼ size)	5% max
Chalky/White boiled grain	6% max
Red and under milled grain	6% max

Statistics of all Major Agricultural Products for last 3 years

Item	Year	Area '000, Acres	Production '000, MT	Per acre Yield (kg)
Major cereals	2017-18	29,566	37,377	1264
	2016-17	28,210	35,115	1245
	2015-16	29,223	36,058	1233
Aus Rice	2017-18	2,657	2,710	1019
	2016-17	2,327	2,134	917
	2015-16	2,516	2,288	909
Aman Rice	2017-18	14,035	13,993	997
	2016-17	13,797	13,656	990
	2015-16	13,814	13,484	976
Boro Rice	2017-18	12,008	19,576	1630
	2016-17	11,060	18,014	1629
	2015-16	11,794	18,938	1606
Wheat	2017-18	868	1,099	1266
	2016-17	1,026	1,311	1278
	2015-16	1,099	1,348	1226
Minor cereals	2017-18	992	3,289	3315
	2016-17	968	3,026	3127
	2015-16	834	2,446	2943
Total cereals	2017-18	30558	40,666	1330
	2016-17	29178	38,141	1307
	2015-16	30057	37,156	1236
Potato	2017-18	1180	9,744	4257
	2016-17	1235	10,216	8272
	2015-16	1175	9,474	2160
Jute (bales)	2017-18	1873	8,895	4.75
	2016-17	1823	8,247	4.52
	2015-16	1675	7,559	4512
Maize	2017-18	990	3288	3323
	2016-17	963	3026	3141
	2015-16	827	2445	2956

Pulses	2017-18	898	389	434
	2016-17	920	387	379
	2015-16	918	412	378
Oil Seeds	2017-18	1122	915	1027
	2016-17	1196	975	815
	2015-16	1124	933	830
Spices & Condiments	2017-18	1006	2594	2578
	2016-17	1019	3513	3447
	2015-16	977	2488	2546
Chillies	2017-18	250	141	564
	2016-17	256	137	535
	2015-16	252	130	515

Rice Processing in Bangladesh

Bangladesh is the world's 4th largest rice-producer and one of the highest per capita consumers of rice (about 170 kg annually). Since independence the overall growth of Food items have increased 4 times now. It is the staple food for the people of Bangladesh. Rice production currently accounts for 77% of agriculture land use maintained by some 13 million farm families. This massive industry has been experiencing a technological transformation in recent years. Long gone are the days of 'dheki' (a wooden device for husking paddy to make rice) and 'chatalas' (traditional sun-drying husking mills) are following suit. Automatic Rice-processing Mills (ARMs) have already become the prominent players in the rice processing industry of Bangladesh. New ARMs are emerging at an increasing rate than ever, leaving small and medium husking mills (chatalas) in a tight corner. As rice is the staple cereal in Bangladesh and with the increase of both the population size and life expectancy at birth (69 years now), it has given the rice processing industry a stable outlook. Rice Milling in Bangladesh Staging Spectacular Rise. After processing, the millers sell rice to either to the Government or the wholesalers. Generally, the final consumers get the supply mostly from grocery shops, which purchase the rice from suppliers/wholesalers.

Moving towards automation

Due to rise in income levels, people now prefer processed rice, which is less costly, looks glossy, takes less time to cook, is free from stones & dead rice, and has longer shelf life. To match with the demand of the people, the rice-processing sector in Bangladesh is undergoing a change. New automatic rice mills are being set up at a growing rate. Over the last decade, several hundred automatic and semi-automatic rice mills commenced, in various rice producing zones. Naogaon, Chapainawabganj, Dinajpur, Kushtia, Khulna, Barisal and Noapara of Jashore are some districts that have attracted investment to set up big automatic rice mills. The demand for automated rice mills becoming larger because it ensures better quality. Presently, there are approximately 17,000 chatals, 500 semi-automatic rice mills and 400 fully automatic rice mills operating in Bangladesh. Automated rice mills and semi-automated rice mills can process five times more rice than traditional rice processing mill at a certain time that acts as a motivation for the investment in the automated rice mills. Through rice processing industry, more than 16% of labour force earns their living by producing rice directly and 9% of labour force earns their livelihood by rice indirectly. Rice processing industry of Bangladesh depends on the seasons very much because some areas produce rice in certain specific seasons and some areas produce rice throughout the year.

The total process flow of modern automated rice milling facility consists of following stages.

Stage	Function
Pre-cleaning	Removing all impurities and unfilled grains from the paddy
De-stoning	Separating small stones from the brown rice
Husking	Removing the husk from the paddy
Husk aspiration	Separating the husk from the brown rice/unhusked paddy
Paddy separation	Separating the unhusked paddy from the brown rice
Whitening	Removing all or part of the bran layer and germ from the brown rice
Grading	Separating small and large broken pieces from the unbroken rice
Polishing	Improving the appearance of milled rice by removing remaining bran particles and by polishing the exterior of the milled kernel
Sorting	Removing foreign materials such as colored, broken, immature and infected grains from milled rice

Weighing & bagging

Preparing milled rice for transport to the customer

List of auto rice millers

There are hundreds of Auto, Semi-auto and Conventional Rice Millers around the country. But most of them are situated in the northern and southern area of the country. Some of the major Auto Rice Millers are listed at Art [4.5](#)-page Number 465

Other milling companies - flour and biscuit

There are dozens of flour mills biscuit suppliers available who are listed at Art [4.6](#)

For contact details, please see the following link:

[4.6 Bangladesh Storage and Milling Company Contact List](#)

For additional details, please see the following document:

[Bangladesh Milling Assessment Additional Information](#)**[Bangladesh Milling assessment additional info](#)**

Note: The information provided in the attached documents, which has been taken from the old DLCA, does not match the structure of the new LCA and is therefore provided separately.