

SECTOR OVERVIEW

A. Agriculture and Food Sector in Bangladesh

1. Overview

1. Despite strong economic growth since 2000, Bangladesh remains one of the poorest countries in the world, with 43% of its population of 142 million living on less than \$1.25 per day.¹ Agricultural development is critical for poverty reduction, as the vast majority of the poor in Bangladesh are in rural areas and depend on agriculture for their livelihood. Some 75% of the population and 85% of the poor live in rural areas. Agriculture generates half of employment, contributes 20% of the gross domestic product, and directly provides food to a large part of the population.² Agriculture development is necessary to reduce Bangladesh's heavy reliance on imported food and other agricultural products, which absorbs 29% of export earnings.³

2. Rice is the major agricultural product, occupying 70% of the gross output value of all crops.⁴ Agriculture in Bangladesh has achieved steady increases in production driven by better flood control and irrigation, the introduction of high-yielding crops, and the generally more efficient use of fertilizers. Although rice remains the primary crop, wheat, maize, and vegetables are assuming greater importance. Population pressure and unfavorable weather continue to severely burden on the country's productive capacity.⁵

2. Performance Gaps

3. The performance of agriculture in Bangladesh is less than satisfying. Three interrelated indicators can be used to outline this poor performance: rural poverty, an imbalance between imports and exports, and food insecurity.

4. **Rural poverty.** Poverty continues to be largely a rural phenomenon. In 2010, the rural poverty incidence was 35.2%, more than half again the urban poverty rate of 21.3%. The rate of extreme poverty was 21.1% in rural areas, nearly three times the 7.7% in urban areas (footnote 2). Among other factors to explain rural poverty are the (i) scarcity of arable land, (i) lack of links between farmers and markets, and (ii) lack of rural employment.

5. Bangladesh is one of the world's most crowded countries, and the land available for agriculture is slowly declining. The total cropped area shrank to 34 million acres in 2007 from 35 million acres in 2001. Arable land is being taken over for housing and industry.⁶ As the area of available arable land decreases, future growth in production will have to come from higher productivity per unit of land. Currently only 45% of the potential irrigated area is under modern crop varieties, and for all crops wide gaps exist between potential yield and realized yield (footnote 4).

6. The second cause of rural poverty is the lack of links between farmers and markets. Most farmers produce for subsistence, with only limited access to agricultural markets. The Asian Development Bank (ADB) country partnership strategy, 2011–2015 identified limited demand for

¹ Asian Development Bank (ADB). 2012. *Bangladesh Fact Sheet*. Manila.

² ADB. 2011. *Country Partnership Strategy: Bangladesh, 2011–2015*. Manila.

³ World Trade Organization. Statistics Database. <http://stat.wto.org/> (accessed 30 May 2012).

⁴ Canadian Trade Commissioner Service. 2010. *Agri-food Commodity Sector Profile*. Dhaka.

⁵ United States Department of State. 2012. *Background Note: Bangladesh*. Washington, D.C.

⁶ ADB. 2011. *Bangladesh Comprehensive Private Sector Assessment*. Manila.

farm products as one of the root causes of rural poverty. Linking farmers to agricultural markets requires investment to increase product quality and to diversify crops. However, farmers are typically reluctant to invest in new agricultural technologies and activities because of actual and perceived risks. They have only limited access to market information.⁷ Finally, the lack of convenient and low-cost financing is a major barrier to investment in agriculture (footnote 6).

7. A dearth of productive and remunerative employment is another major cause of rural poverty. The adult labor force of 54 million represents only half of the working age population. In addition, underemployment, or working less than desired or what would be considered full time, afflicts 29% of the work force (footnote 2). Finding alternative sources of employment will continue to be a daunting problem for future governments, particularly with the increasing numbers of landless farmers, who already account for about half the rural labor force (footnote 5). Many of them lack the technical skills and knowledge required by high-value agriculture and other sectors, which makes improving human capital development critical (footnote 6).

8. **Import–export imbalance.** Bangladesh suffers from a severe agricultural trade deficit. In 2010, imports of agricultural products amounted to \$6.0 billion, or 19% of all imports and absorbing 29% of earnings from all exports. In contrast, exports of agricultural products came to only \$1.0 billion, or 5% of all exports (footnote 3). In addition to this structural deficit, natural disasters can cause spikes in agricultural imports. Government legislation on agricultural products changes with the country's production and import requirements. For example, the government currently allows the tax-free import of wheat and pulses to fill a significant gap between demand and local production (footnote 4). Bangladesh's high agricultural potential argues for promoting investment in higher-value agricultural and food products to meet both local and international demand and to reduce the agricultural trade deficit.

9. **Food insecurity.** Food insecurity remains a critical issue in Bangladesh. Although the number of malnourished has decreased in recent years, it remains high at over 41 million people, or 27% of the population, and just under half of all Bengali children are underweight.⁸ Malnutrition among poor women causes poor health in their children. Infant malnutrition can permanently harm health and learning ability, contributing to the intergenerational transmission of poverty (footnote 2). As rice is the dominant crop and most rural people rely on their own agricultural production for their food, rice contributes 70% of average caloric intake in Bangladesh (footnote 8).

10. Food insecurity is exacerbated by natural disasters and food price shocks. Bangladesh is vulnerable to natural disasters, and its open economy is vulnerable to sudden changes in global markets. The devastating cyclone and floods in 2007 affected 25 million people, severely damaging agriculture and livelihoods. Soaring global and domestic food prices from May 2007 to September 2008, and again in 2010, reduced the purchasing power of the poor and cast large numbers of vulnerable households, including those headed by women, into transitory poverty (footnote 2).

3. Government Policy

11. The government's objective is to increase the productivity and competitiveness of the agriculture and food sector. In particular, the Sixth Five Year Plan, 2011–2015 emphasizes (i)

⁷ R. Holmes et al. 2008. *Extreme Poverty in Bangladesh: Protecting and Promoting Rural Livelihoods*. London.

⁸ Food and Agriculture Organization of the United Nations. 2010. *Country Profile: Food Security Indicators-Bangladesh*. Rome.

import substitution for certain crops and food products, (ii) increased exports of high-value food products, (iii) increased private sector participation and investments in agribusiness, and (iv) food security for all and raising people's nutritional status.⁹

12. The private sector can play a decisive role in the agriculture and food sector. ADB's country partnership strategy for Bangladesh calls for (i) developing agriculture and off-farm economic activities to accelerate growth in rural areas; (ii) creating opportunities in manufacturing and services to facilitate the transfer of many workers engaged in less-productive employment in agriculture and informal services to higher-income jobs, and (iii) accompanying this economic rebalancing with strategies to enhance the income-earning opportunities of workers remaining in agriculture by raising crop productivity and diversity (footnote 2).

B. Processed Food Industry

1. Overview

13. The processed food industry has potential to contribute to value addition and employment in Bangladesh. It accounts for over 22% of all manufacturing production and employs 20% of the manufacturing labor force. The sector is dominated by small and medium-sized enterprises strongly linked to local production. There are nearly 700 food-manufacturing enterprises in the country processing baked goods, confectionery, fruits and vegetables, cereals, dairy goods, fruit juices, and various other foods and beverages.¹⁰

14. The food and beverage sector in Bangladesh has an estimated annual value of \$13 billion, of which the processed food market is probably worth \$1.0 billion per year. Sales by convenience stores and supermarkets together occupy only 5% of total national food sales, as 20% of food is still purchased in municipal markets and 75% from roadside shops.¹¹ There is huge growth potential for processed food, as the growth of the middle-class, higher employment of women, and changes in lifestyle contribute to expanding the market for processed food.

15. Demand for processed food for export is also rising, for consumption not only in advanced countries but also in developing countries. The share of processed food exports in total world food exports increased from 44% in 1980 to 63% in 2006.¹² Processed food exports from developing countries have significantly contributed to this trend. Processed foods exported from Bangladesh go mostly to the Middle East, where many expatriate Bangladeshis live.

2. Liquid Glucose

16. Liquid glucose is a transparent and viscous syrup, either colorless or light yellow, that is derived from purified starch. Liquid glucose syrups can be produced with viscosity and sweetness tailored to their application. Liquid glucose is widely used in the food industry and, to some extent, in pharmaceuticals.

17. Most of the liquid glucose used in Bangladesh is imported from India and the People's Republic of China. Local production fills less than 10% of market demand. Trends in imports indicate the market potential for locally produced liquid glucose. Imports of sugar and sugar confectionary products (the category in which liquid glucose falls) grew by an average of 28%

⁹ Government of Bangladesh, Ministry of Planning. 2011. *Sixth Five-Year Plan: FY2011–FY2015*. Dhaka.

¹⁰ Embassy of the Republic of Poland in New Delhi. 2010. *Bangladesh Food Processing Sector*. New Delhi.

¹¹ United States Department of Agriculture. 2004. *Bangladesh Retail Food Sector Report 2004*. Washington D.C.

¹² ADB. 2009. *Determinants of Structural Changes of Food Exports from Developing Countries*. Manila.

per year from 2008 to 2011. Such significant growth can be explained by the number of new entrants in the processed food industry, which is a heavy user of liquid glucose.

18. As locally produced liquid glucose is an import substitute, market opportunities will be strong. As such, local producers offering a product of similar quality and price as that of importers, or a lower price, can expect a good response from local buyers. This is because buying from local producers entails fewer regulatory complications such as customs inspections and declarations. According to Mott Macdonald, demand for liquid glucose is expected to continue growing at a rate of at least 14%–15% annually until 2019.¹³

3. Wheat Flour

19. In Bangladesh, wheat flour is consumed primarily in flat breads known as *chapatis* and *paratas*, though raised breads and pastries are also consumed in urban areas. Locally, whole wheat flour is known as *atta* and white flour as *maida*. Usually, flat breads are made with *atta*, and raised breads and pastries are made with *maida*. While *atta* is sold in bulk in rural areas, urban millers market packaged, refined *maida* under brand names.

20. As a large proportion of the population consumes *atta*, whole wheat occupies 90% of the flour market. Wheat flour ranks second in importance after rice as a source of energy, but consumption is declining in Bangladesh as a whole with the emergence of maize as an alternative to wheat in rural areas. However, wheat flour consumption in urban areas is growing steadily with changes in eating habits and growth in the hospitality industry (footnote 4). Urban households consume more than a third more wheat flour per capita than do rural households. With an estimated 15 million–20 million people added to the urban population from 2011 to 2015, the declining trend in flour consumption will certainly reverse. Indonesia experienced a similar trend, seeing consumption per capita decrease until 1999, when consumption started to bounce back (footnote 14).

21. Most wheat consumed in Bangladesh is imported. In 2010, Bangladesh imported 2.5 million tons, far more than local production of 1.0 million tons. As public sector procurement in Bangladesh is price competitive, suppliers in Ukraine enjoy the greatest advantage. In contrast, the private sector sources wheat from a larger range of countries, including Australia, Canada, and the Russian Federation (footnote 4).

22. Flour fortification offers an opportunity to strengthen food security. Fortification of widely distributed and consumed foods has the potential to improve the nutrition of much of the population without requiring changes in dietary patterns or individual compliance. PRAN has been working with the Global Alliance for Improved Nutrition on food fortification since 2005, introducing vitamins and minerals in various products such as biscuits, noodles, juices, and milk. Similarly, PRAN is planning to fortify its *atta* products with vitamins A, B1, B2, B3, and B9 and the minerals iron and zinc. Fortifying industrially processed flour, when appropriately implemented, is an effective, simple, and inexpensive strategy for supplying vitamins and minerals in the diets of large segments of the population.¹⁴ However, the Government of Bangladesh imposes duty on manufacturers' imports of vitamins and minerals, creating a major hurdle to food fortification.

¹³ Mott MacDonald. 2012. *PRAN Due Diligence Report: Marketing and Technical Review*. Dhaka.

¹⁴ World Health Organization. 2009. *Recommendations on Wheat and Maize Flour Fortification Meeting Report: Interim Consensus Statement*. Geneva.

4. Frozen Food

23. The frozen food market in Bangladesh barely existed 10 years ago and started flourishing only in the last five years. The emergence of super stores and convenience chains facilitated the growth of this industry, which caters mainly to the urban middle class. Initially, the market consisted of imports, but in the last five years, a number of local companies have entered it.

24. Growth in the frozen food market is driven by rapid urbanization, the emergence of a large middle class, and changes in lifestyle. The urban population in Bangladesh is forecast to reach 90 million by 2020. The middle class, currently estimated at 20 million–30 million, is driving domestic consumption. As the number of families with at least three generations under the same roof is declining, and as increasing numbers of women join the work force, demand grows for ready-to-cook and frozen foods.

C. How the Project will Address Sector Performance Gaps

25. The project will contribute to reduce rural poverty by (i) creating market links through contract farming and (ii) generating significant direct and indirect employment. The project will contribute to reducing the import–export imbalance through import substitution in the case of liquid glucose and through exports of high-value food products using glucose and flour, including frozen foods. Finally, the project will contribute to greater food security through flour fortification and improving the availability of affordable processed food products with long shelf life.