

Achieving Zero Hunger Goal: Food Security in Post COVID-19 Era in Bangladesh

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Abstract

Bangladesh has made a commendable progress in achieving SDG goals, specially poverty alleviation and hunger eradication. Since 2020, COVID-19 pandemic has imposed a great uncertainty in the economy, food security throughout the whole world. To combat the contagiousness nature of this pandemic, countries had to adopt general holidays or lock down for quite a long period. In this pandemic, we had to face lock down to save lives. So, ensuring food security has become a great challenge. This paper, we have analysis the achievements of Bangladesh to ensure food security and reach Sustainable Development Goal (SDG) 2: Zero Hunger. We have discussed the challenges and steps of government to achieve this goal and ensure food security in both normal situation and pandemic situation. It is also recommended that immediate and long-term steps to be taken in achieving and sustaining food security in Post COVID-19 era so that we can achieve our sustainable development goal of hunger eradication.

Keywords: Agriculture, COVID-19, Food security, Sustainable Development Goal, Zero Hunger

1.0 Introduction

Food security is a significant issue for every state. If there is the availability of food and all the citizens of a country have the social and economic access to food according to their need and choice for an abundant life, we can say that food security is ensured in a country (Kashem & Faroque, 2013; Osabohien et al., 2018). Nutrition security is the availability of and access to variety of foods providing necessary nutrients for our body (Hwalla et al., 2016). Every individual should be ensured to have the access to a wide range of food for leading a healthy life (Arefin et al., 2020). An adult man has a need to intake 2425 to 3800 Kilocalories (Kcal) based on the work types (sedentary, moderate, hard work) and the value for adult women is 1875 to 2925 Kcal (Islam, 2012). With this calorie intake, every individual should ensure proper consumption of nutrition (Khan, 2019). Food Security is evaluated on the basis of four dimensions: availability of food, access to food, use of food and stability of food (Gross, et al. 2000).

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Bangladesh has achieved tremendous success in achieving Sustainable Development Goal (SDG) 2: Zero Hunger in the last few years (Arefin et al., 2019) . This year COVID-19 pandemic outbreak has imposed a huge negative impact on global economy and food security. In this paper, we have discussed the steps of government to ensure food security and their steps to ensure food security in COVID-19 lockdown and post COVID-19 era in Bangladesh.



Figure 1: Dimensions of food security

2.0 Food Security in Bangladesh

Under the visionary leadership of our Honorable Prime Minister Sheikh Hasina, Bangladesh has obtained significant achievement in food security compared to other similar countries around the globe (M. S. Arefin, 2020). The Government of the people’s republic of Bangladesh has specific targets of achieve Seventh Five Year Plan, National Agriculture Policy 2018, and Sustainable development goals.

One of the biggest achievements of Bangladesh’s agriculture sector is its ability to secure food for its 162 million(approx.) people. The 48.9% range of poverty in 2000 reduced to a range of 23.2% within 2016 which has a direct impact on strengthening the security of food for all (Bangladesh Bureau of Statistics[BBS], 2018). In most of these four dimensions of food security, Bangladesh has made impressive progress over the last few years (D. Roy et al., 2019). Nationwide food demand has been met with the fertile land of Bangladesh which is a remarkable milestone in ensuring food security. Bangladesh currently produces 38.7 million metric tonnes of rice and 1.25 million metric tonnes of wheat. But its annual demand is 32 million metric tonnes for rice and 5.5 million metric tonnes for wheat. Rest of the requirement for wheat is addressed by imports.

After coming into power of current government, by the lead of honorable prime minister and agriculture minister, agriculture ministry and its divisions has taken following initiatives and steps to implement digital Bangladesh and achieve vision 2021 (*Food Security and Self-Sufficiency Achieved, 2014*):

- *Self-sufficiency in food production*
- *Quality Seed production, restoration and supply*
- *Infrastructure development for seed farming*
- *Feasible and heavy yielding species development*
- *Sustainable and drought tolerant new rice variant production. Example: Narika*
- *New types of hybrid crop innovation. Example:SL-8H*
- *Genome sequence exploration of jute*
- *Market control for fertilizer availability*
- *Surface water dependable irrigation system*
- *Strengthening agriculture with modern, sophisticated machineries*
- *Empowerment of Women*
- *Expansion of agriculture in the southern area of Bangladesh*
- *E-agriculture or digital agricultural management and crop zoning map formulation*
- *SAARC seed bank development*
- *Development of National Agriculture Policy 2013*
- *Increasing agriculture loan*

3.0 Achievements of Bangladesh regarding Food Security

Bangladesh obtained tremendous achievements in this decade to ensure food security (*Food Security and Self-Sufficiency Achieved, 2014*). These include the following:

- Bangladesh has achieved remarkable production of cereal and crops.
- Bangladesh has made commendable progress to eradicate hunger in spite of constraints.
- The government has also been successful to improve purchasing capacity of mass people.
- Bangladesh not only attained self-sufficiency in food but also ensuring food grain stocks.
- Government has developed food-based Social Safety Net Programs in Bangladesh.
- Bangladesh is the third fish producing country in the world (“FAO: Bangladesh Ranks 3rd in Inland Fish Production”).
- Bangladesh has achieved revolution in vegetable production.

4.0 Food Security situation in COVID-19 Pandemic in Bangladesh

After the lockdown at the beginning of 2020 the poverty rate became 35% according to the CPD finding. Sequentially the income fell from 15,000tk per month to 3,700tk per month due to the pandemic situation (Abdin, 2020). Egg and milk producers had to sell their product below the production cost. Several supply chains for vegetables had also been greatly disrupted and are under severe stress. Approximately 50 percent of broiler farms have already left the business. Many of them had fear about starting new crop production. It was supposed to impact about 70,000 poultry owners (Abdin, 2020). Layer farms would eventually shut down if low egg prices continued.

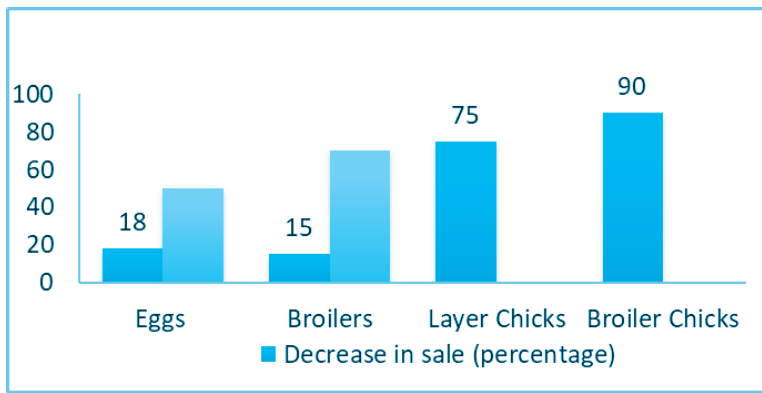


Figure 2: Poultry business situation in COVID-19 lock down in Bangladesh for the month of April (Source: FAO, May 2020)

During the entire lockdown situation the income and savings decreased with a significant amount. So, their income decreased excessively. Though government ensured their employees the salary, employees of private companies and businessmen could not have their regular income. Many migrants from Bangladesh lost their job in the foreign countries (Sorkar, 2020). As a result, their family in Bangladesh suffered a lot due to the impedance of remittance flow.

In Bangladesh, the food production and stock was sufficient. But the purchasing ability of mass people decreased significantly in lock down (Dev & Kabir, 2020). As a result the food access could not ensure the food intake for all. Because food access depends also on the buying capacity (Gartaula et al., 2017). In addition to the lockdown during the pandemic period Bangladesh experienced nationwide flood. But fortunately the natural disaster did not harm much in the grain harvesting due to a pre action harvesting plan before the flood.

About 87% population among the poor has fallen under extreme food shortage during the COVID-19 pandemic. To minimize the crisis, government and non-government agencies had taken intensive action plan and polices (Sarkar, 2020; Sorkar, 2020).

A survey by Khaddo OdhiKar Bangladesh reported that 87 percent of people living under the poverty line (50 million) already faced an extreme food crisis in Bangladesh because of the corona virus (Abdin, 2020). So, the government and the existing regulatory and multilateral organizations has the primary responsibility in ensuring food security.

5.0 Challenges to ensure Food Security

A global food security issue has been raised by COVID-19. However, COVID-19 may impose five main risks to food safety worldwide are (M. S. Arefin, 2020):

1. COVID -19 may impose significant challenge to nations in overwhelming poverty and inadequate health facilities
2. COVID -19 may impose a significant threat to nations without social security networks
3. COVID-19 can have detrimental effects on chronically or acutely starving or malnourished nations.
4. COVID -19 is likely to trigger food supply chain disruptions, food shortages and food price rising.
5. COVID -19 could slow the world economy down or worsen extreme poverty and starvation in recession.

A number of factors guarantee food security. Table 1 demonstrates the spectrum of factors in normal and pandemic conditions that impact food safety.

Table1: Factors affecting Food Security

Factors affecting food security in normal situation	Factors affecting Food Security in pandemic
<ul style="list-style-type: none"> • Population • Climatic change • Industrialization • Price of food • Change in land usage • Water shortage • Income escalation and • Nutritional inclination • Global energy supply • Food trade 	<ul style="list-style-type: none"> • Food stocks • Supply Chain Management • Food Price • Economic condition of mass people • Working opportunity

6.0 Government Steps and Achievements to ensure food security in Pandemic

Food security is greatly dependent on the agricultural sector's stocks, supplies and resources as this guarantees the supply of food. The government subsidized farm machinery to help farmers collect fresh crops in a reasonable timeframe. Farmers were close to success in harvesting and marketing adequate rice and other farm commodities with the heartening attempts made by the Ministry of Agriculture and the field-level agricultural extension staff (M. S. Arefin, 2020). There were ample cereals and other food products stored, according to the Ministry of Agriculture. The government has taken a number of praiseworthy measures to address the issue immediately to ensure food security.

The government stimulus package was announced at the start of the pandemic in Bangladesh. It included Tk5,000.00 crore worth of soft loans with a six month grace period at four percent interest (reduced from 10 percent) to different agricultural sectors, including seasonal flower and fruit, fisheries, poultry, dairy and livestock (Mehjabeen, 2020). Our government has waived of advance taxes on feed for fisheries, livestock and poultry (Abdin, 2020).

The government provided food and assistance to poor people through its local administration. More than 5 million ultra-poor individuals are projected to have obtained assistance from this program ("Govt Delivering Aid to Ultra-Poor Families' Doorstep," 2020). The government asked the rich people in society to support the poor people (Muhammad Mahmood, 2020). Many well-off people responded to this urge and helped needy people. In addition, the government has taken a strong stand in the food market to regulate prices so that people can buy the requisite food at a reasonable price. Government has eased of Letter of Credit (LC) margins for food and essential commodities (Government and Institution Measures in Response to COVID-19., 2020). Temporary port-side storage facilities have been created for food. Government instructed to prioritize customs clearance and movement from ports of food, feed and allied products. Official restrictions were relaxed on the transport of food, feed and agricultural inputs and processing accessories across the country, even during the lockdown.

A web portal, called 'Food for Nation', was also launched by the government, which was created solely to deal with the supply of food and customer access ("Bangladesh Launches 'Food for Nation' Digital Marketplace to Connect Farmers, Consumers," 2020). The website is Bangladesh's first of its kind, providing a free, web-based agricultural marketplace and establishing a direct link between producer and consumer. In addition to this, another web portal called 'Corona Info' also offers food relief services (Bishakha Devnath, 2020). In this web portal, the government has listed all the contact numbers for online food delivery services and important food suppliers so that people can access them easily (R. Roy, 2020).

Another admirable effort to improve food security, through Corona Data, was to open a simple online food relief application system where poor people, or their neighbours, may request emergency food supplies on their behalf. So, it can be said that government took commendable steps to combat food security problems in this pandemic.

7.0 Challenges to ensure Food Security in Bangladesh in Post COVID-19 Era

Food security in Bangladesh largely depends on agriculture sector (Points, 2020). In the initial stage of lockdown, there were a number of possible effects that the pandemic could have on the food supply chain in the upcoming agriculture season. There was a risk of labour shortages due to travel restrictions and fear of infection, shortages of inputs such as seeds, fertilizers, pesticides, etc. due to disrupted international trade, especially imports, and limited farmers' ability to store harvested crops. Supply of seeds, fertilizer, pesticide etc. might be disrupted due to interrupted international trade, especially imports. Ultimately the farmers would have reduced income (Abdin, 2020).

Again, there was a large spoilage potential. Probable shutdowns of factories or facilities, port restrictions and congestion, lack of proper storage system could lead to the deterioration of perishable vegetables and fruits, and to increased food waste (Points, 2020). Finally, disruptions in the recovery of capital investment might also occur. So, labour shortage, investment limitations, lack of storage would ultimately affect the supply chain. Government has already taken necessary steps to overcome these challenges. But now the limitation lies in proper implementation, social auditing and monitoring. Food security largely depends on supply chain management (Sazzad, 2014; Bendeković et al. 2015; Sennoga et al. 2019). Consequently, supply chain management becomes the challenge to ensure the food security.

Government should take strong steps to identify the actual beneficiaries. Government has opened web-portals to give the opportunity to poor to have food relief. But vulnerable and food deprived people cannot yet interact with these networks due to their accessibility limitations. Ultimately the access of food and nutrition to lower income groups would be limited and vulnerable groups will suffer from malnutrition.

Bangladesh has yet not faced food scarcity to a great extent in this pandemic due to the visionary steps of the government. But the assurance of the quality of the food at the consumer end is challenging due to proper storage and transportation limitations. Both the quality and nutrition are important for assuring the nutrition security. Both the quality and nutrition are important for assuring the nutrition security.

Diversion of food grains and proper intra-family distribution may become a great challenge to boost immunity and combat COVID-19. Awakening awareness in mass people about the importance of nutrition, exclusive breast feeding, complimentary foods is really important. So, giving nutrition education has become a great challenge.

8.0 Recommendations and Way Forward to ensure Food Security

8.1 Immediate Steps: Achieving food and nutrition Security requires a multi-sectoral approach. In Bangladesh, agriculture can play a big role in overcoming the upcoming challenges in the post-Covid-19 era. Bangladesh is already a country which depends quite heavily on agriculture. Almost 87% of the rural population get at least some income from agriculture. However, two thirds of rural households rely on both farm and non-farm incomes. Pro-poor agriculture growth has stimulated the non-farm economy in Bangladesh: a 10 per cent rise in farm incomes generates a 6.0% rise in non-farm incomes. As non-farm incomes continue to grow, the government needs to focus on fostering a more robust rural non-farm economy in the post- Covid-19 era. Our Prime Minister has already declared to cultivate every pieces of unutilized land for ensuring food security in the future. We can certainly use these agricultural products along with others to counter the demand in the upcoming years which are bound to be challenging.

The government should immediately focus on increasing coverage of food distribution and supply and enhancing the benefits of country-wide social protection programmes. They should also collaborate with the international community to avert food shortages and price hikes by ensuring free trade and strengthening regional mechanisms for food security. Increasing coverage of food distribution and supply is obvious. It should be noted that the two to three million deaths in the Bengal famine of 1943 were due to food supply disruptions, not a lack of food availability, so it is crucial that the supply chains continue to function effectively (Arefin, 2020). Government should increase availability, access and proper utilization of food. The benefits of country-wide social protection programmes have to be enhanced. Government should collaborate with the international community to face food shortages and price hikes. Free trade and strengthening regional mechanisms for food security should be upgraded (Abdin, 2020; Arefin, 2020; Roy et al. 2019).

Farmers and agricultural workers should also be included in the government's assistance packages and any social protection programmes that are addressing the crisis. Increasing Availability of primary agriculture inputs like seed, fertilizers, pesticide etc. at affordable costs for long term is a must. The government's substantial agricultural stimulus package should start giving loans and grants on an urgent basis. We should build resilience in the food system to protect it against unforeseen economic and health shocks.

8.2 Long-term Steps: Bangladesh needs long term planning in Post COVID-19 era to sustain the economic growth rate. More Mechanization of agriculture and more diversification and application of technology-based farming are required for increasing production volume (Arefin, 2020). Value chain development, automation and proper monitoring are necessary. Opportunities of direct marketing through online platforms should be created by facilitating trading of products. Establishment of Cold chains across districts are very important to ensure the intact nutrition of crops, fresh vegetables and fruits (Arefin, 2020). Government should manage proper storage system and transportation facilities to ensure nutrition security and avoid of food waste (Arefin & Habib, 2020). Extenuating the loss of farmers is required to encourage them for more production. This can be also implemented by creating systems that remove multiple layers of intermediaries. Price fluctuations of food should be monitored strongly in district levels to avoid unethical price volatility.

8.3 Food Security- Policy Imperatives: Policies should be upgraded to improve capacity of families, households, communities. Education, Health care and infectious disease-prevention based policies are required. Targeted social protection programs, cash transfers, school-based food programs should be taken and implemented in wider perspective etc. Sustainable livelihoods are needed in both rural and urban areas. To ensure food security, concerned issues should be prioritized. Fair business and trade opportunities based policies should be taken.

9.0 Conclusion

The government has already taken substantial steps to protect the economy against the detrimental effects of Covid-19. Long-term measures for ensuring food security are expected to be adopted and planned by the government. In order to ensure the food security to all in post-pandemic situation in Bangladesh, combined efforts from all sectors are required. Bangladesh has an enormous potentials in raising revenue generated by agricultural sector (World Bank). Improvement in agricultural productivity and making it environmentally sustainable, and improvement in crop nutritional value can largely contribute to this. Both of these should be followed by a strong supply chain, which will allow the food and nutrition to reach end consumers both at home and abroad. This will enable Bangladesh to combat the economic problems in the coming years. All of these measures will outstandingly help to achieve food security and Sustainable Development Goal 2 - Zero Hunger.

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