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CHALLENGES AND OPPORTUNITIES OF FOOD SECURITY IN BANGLADESH DURING COVID-19

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Abstract

Food is one of the basic human needs. The role of the food is very important in the agrarian economy of Bangladesh, where the people of the country spend most of their income on food. The first and foremost responsibility of the state is to ensure uninterrupted supply of food for all during Covid-19. Bangladesh is a developing country. So, it is faced with the great challenge of food insecurity. Despite of achieving self-sufficiency in food production, a large number of people experience the food insecure situation in this country during Covid-19. Since long time ago, scientists are striving to feed the growing population of Bangladesh. However, this study was conducted to assess the present situation of food security in Bangladesh. This study also analyze food security and nutrition status in Bangladesh during Covid-19. This systematic study investigated the available literature and recorded the related and various dimensions of food security in Bangladesh. Bangladesh has made remarkable improvements in food availability, access, and utilization in the last few decades, but it is not the case regarding the food stability. During Covid-19, the country experiences numerous challenges regarding food insecurity. This study use secondary data with using the different statistical tools (pie chart, line graph, bar graph etc.) Bangladesh has made significant improvement in cereals specially rice production. Despite the increase in the income of people, the food quality is not good. Unequal land ownership and income distribution have made the food access below par. Food utilization has improved but balanced food intake is still far below the standard. Besides people still severally

food insecure and malnourished. To ensure food security, government of Bangladesh has undertaken several programs but they were not sufficient to cope with this everlasting issue. In spite of the improvement in many aspects of food security, people of Bangladesh still lack dietary diversification, which leads to during Covid-19, nutritional imbalance. Besides, several factors challenge the food security.

Keywords: Food security, Agricultural Sector; Utilization; Stability; Covid-19, Bangladesh

INTRODUCTION

Bangladesh is an agricultural country and most of the people are engaged directly in agricultural sector. Agricultural economists are concerned about the current and oncoming implications of Covid-19 on food security. The food supply chain is a complex web that includes producers, agricultural inputs, transportation, processing plants, shipping etc. Now current blockages to transport routes, transport restrictions, shortages of labour, queer in product's prices are obstructive for fresh food supply chains and result in increased levels of food loss and waste. These obstructions prevent the farmers' access to markets, inhibiting their productive capacities, and obstructing them from selling their produce in our country. Meeting the immediate food needs of vulnerable people is the primary concern of addressing Covid-19 impacts in our country. Emergency food needs can be ensured by distributing food to the most vulnerable families such as beggars, day labourers, rickshaw pullers, van pullers, transport workers, restaurants workers, and small roadside tea stall owners. Besides, the government should improve the communication on access points for food deliveries, distribution times, and measures to reduce the risks. The government must take steps for several sectors or groups because of their welfare.

Food is one of the basic human needs. The role of the food is very important in the agrarian economy of Bangladesh, where the people of the country spend most of their income on food. The first and foremost responsibility of the state is to ensure uninterrupted supply of food for all during Covid-19. According to Articles 15(a) of the constitution of the People's Republic of Bangladesh, the basic responsibility of the state is to meet the basic food needs of all its citizens. Food security is a global concern for every individual one in nine people more severe, overpopulation along with decline of the land-to-human ratio have made the need for food security of utmost necessity. Food and Agriculture Organization (FAO) explains food security as a situation 'when all people at all times have physical, social, and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life'.

Ensuring food security is a big challenge for Bangladesh during Covid-19. The number of covid-19 affected patients is increasing day by day. Covid-19 could affect on food demand in various ways. Food demand is related to income. Reducing income and uncertainty in earnings make people spend less which can result in decreasing demand. In the period of lockdown, the food choice to buy and consumption could affect as people are less visiting the food market. So, poor people's uncertain earnings could impact on their consumption. In a survey, BRAC reported that extreme poverty has rotated 60% than before and 14% of the people have no food at home in Bangladesh.

Backgrounds of the Study

Bangladesh has made sustainable improvements in food security over the past three decades. Although the population almost doubled, the growth rate of food production during this period was higher than the rate of population growth. At the national level, Bangladesh has been able to achieve self-sufficiency in food grain production in terms of per capita calorie intake. The increase in income and the reduction in poverty indicate that the access to food in the country has increased over time. The actual wage rate of agricultural workers has almost doubled during the period 2000-2015. Rapid economic growth has enabled Bangladesh to reach the status of a low-middle income country in 2015 and by the year 2024, Bangladesh is on the way to move away from the list of least developed countries. The country has made remarkable progress in achieving food security in recent times. Despite these remarkable achievement in the past, Bangladesh has faced some complex challenge in ensuring food security for more than 160 million people, with the population projected to exceed 160 million by 2030. In addition, some negative trends in the near future, including Covid-19 have hindered the expansion of food security.

The economic growth of Bangladesh strides forward rapidly since 2000 with the decline in extreme poverty rate to 25% in 2014 from 31% of 2010. However, Bangladesh having large population and extremely scarce and natural resources is always to the edge of food insecurity due to number of factors intertwined with each other. Hence, 20% of the population of Bangladesh is still calorie deficient and low birth weight among Bangladeshi infants is among the heights in the world is no wonder.

Objectives of the Study

- 1. To analyze the progress in various agricultural sector and its consequences on food security in Bangladesh during Covid-19.
- 2. To analyze food security and nutrition status of Bangladesh during Covid-19.

- 3. To highlight the major challenges and opportunities for food security in the way of ensuring food security in Bangladesh.
- 4. To analyze the food strategies in Bangladesh and attempt to formulate a desirable strategy of food security.
- 5. To find out various problems and recommends some suggestions for balanced food supply in Bangladesh.

LITERATURE REVIEW

Food security is defined according to the Food and Agriculture Organisation of the United Nations (FAO, 1996) World Food Summit in Rome as existing "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life". This definition is also shared by other bodies such as the World Health Organisation and according to (WHO 2011) "the concept of food security is defined as including both physical and economic access to food that meets people's dietary needs as well as their food preferences. In many countries, health problems related to dietary excess are an ever increasing threat. In fact, malnutrition and food borne diarrhoea are become double.

According to the WHO, 2011, food security is "a complex sustainable economic development issue, linked to health through malnutrition, but also sustainable economic development, environment and trade, and there is a great debate around food security". Food security definition according to (FAO Policy Brief, 2006)

Whereas other development agencies such as the United States Agency for International Development (USAID, 1992), incorporated the fundamental concepts of each of these different definitions from FAO.

Hoddinott (1999) affirms that the concept of food security has spatial as well as temporal dimensions. The spatial dimension refers to the degree of aggregation at which food security is being considered. He states that it is possible to analyse food security at the global, continental, national and sub-national, village, household or individual level

This subsection illustrates the current issues and developments happening in the area of food security. Food security issue lies at the intersection of food supply and demand (Sulser, Nestorova, Rosegrant, & van Rheenen, 2011). Food security currently remains an on-going global concern (Cotula, et al., 2009; FAO, 1996; UN, 2010).

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World Bank, and International Fund for Agricultural Development (IFAD). The Millennium Development Goals (MDG's, 2010) has in goal one, the objective of reducing hunger and malnutrition by 2015.

According to Naylor, (2011), "the challenges of reducing global hunger and poverty are different today than they were 30 years ago. Current challenges include price volatility associated with increased integration of food, energy, and finance markets; the steady progression of climate change; poorly defined land institutions; and a failure to break vicious cycles of malnutrition and infectious disease."

Magnan, Travis, McCalla, & Lampietti, (2011) emphasises that "rising food prices, dwindling grain stocks, and concerns about physical shortages of staples have raised issues of food security to the top of many national agendas .Countries that depend on international markets for a significant share of their basic food supply, self-sufficiency strategy is being suggested as a policy objective". "Stressing that national food security is achieved when all citizens are individually food secure; but this is less straightforward than it appears. For nations integrated into the world economy, food security is more complicated and involves trade-offs and choices."

Naylor, (2011) postulates that "farmland speculation is occurring globally, often at odds with rural poverty alleviation and therefore food insecurity remains a pressing issue with the estimated number of chronically malnourished people hovering around one billion."

Von Braun, Meinzen-Dick, & International Food Policy Research, (2009) noted that "food price hikes of 2007 and 2008 shook the assumption that the world will continue to experience low food prices. Maize and wheat prices doubled between 2003 and 2008. Grain and other food prices have dropped from the highs seen in the summer of 2008"; but prices are still 30 to 50% above averages over the past decade according to the (Economist, 2009).

Maxwell, (1996) mentions "food security has much to learn from recent advances in thinking about public administration, how to turn public sector administrations into "open systems", characterized by new forms of relationship with clients, greater public accountability, more decentralization, much greater organizational flexibility and greater individual commitment. There are many lessons here for food security institutions, especially those engaged in topdown and resource-intensive relief programmes".

According to Robertson & Andersen, (2010), the matter is new and available evidence is found outside the traditional academic literature. The poor smallholder farmers who do not possess land titles tend to be occupants of the lands sold in these transactions thus this threatens the internal food security of the lesser state. Food security and vulnerability are placed at centre stage, especially in their demands on shaping innovative policy design (Adam, 2011).

In 1983, FAO expanded its concept to include securing access by vulnerable people to available supplies, implying that attention should be balanced between the demand and supply side of the food security equation: "ensuring that all people at all times have both physical and economic access to the basic food that they need".

In the light of the literature review referred to above, it can be said that there are some gaps in the existing literature that need to be addressed. There is a lot of study on food security but no literatures have been found during covid19. Some researchers in this field have not provided a overview of the impact of COVID-19 on food security in Bangladesh.

METHODOLOGY

Methodology means the way or manner by which the study is accomplished, which refers to the full outcome of the process at a glance. It includes some chronological steps that are necessary to complete the study successfully. Mode of operation differs with the nature of the study. Methodology is always a compromise between options and choices and is frequently determined by the availability of relevant resource and time. It is very important in the sense that it gives one an idea about how the study has been conducted. In other words, methodology helps to organize, represent, and analyze data and information. And their logical expression in a systematically chronology is to achieve the ultimate goal of the thesis. The methodology is adopted for the current research work is presented in a sequential manner.

Selection of the Study Area

The survey is directed at overall in Bangladesh. The people of Bangladesh have been met their food consumption for survival. Here most of the people are poor and illiterate and they are engaged in agricultural sector directly. But they are facing different challenge of food security.

Types and Source of Data

The study of the context has been made basically on the base of secondary data of different sources, both national and international institutions and individual studies. We have used data of FAO. Its balance sheet data helps for determining food availability by food items in Bangladesh. We have used data base of Bangladesh Bureau of Statistics and data of Ministry of agriculture, Ministry of Food Disaster Management of Bangladesh for determining trend of food availability over the years. For determining the consumption pattern at household level, data of Household Income and Expenditure Surveys of BBS have been used extensively.

We have locked into estimates of standard consumption requirements of the country by using normative of World Bank, FAO, WHO, Institute of Public Health and Institute of Food Science and Nutrition. We tried to use data base of Bangladesh Demographic Health Surveys of NIPPORT and Food and Nutrition Surveillance Project of Ministry of Health and Welfare and Child and Mother Nutrition Surveys of Bangladesh of BBS to determine anthropometric measures of food security and nutrition status of Bangladesh. For studying different dimensions of food security, we have used also data of individual studies.

Techniques and tools

Estimation of individual indicators, ratio analysis, growth rates, Graphic and tabulator like pie chart, bar graph, line chart analysis are the main analytical tools of the study.

ANALYSIS ABD DISCUSSION

Important results and their logical interpretations have been presented accordance with the objectives of the paper.

The Production of Rice and Wheat

Table 1 indicates that the food availability status in Bangladesh. The volume of food availability in FY 2010-11 stood at 35280 MT, of which rice accounted for 30913 MT and wheat 4367 MT. In FY 2015-16 availability of rice increased at 31280 MT and wheat at 5450 MT. During Covid-19, it stands in FY 2019-20 the total availability of rice and wheat are 43989 in where the availability of rice is 36615 MT and wheat 7375 MT and in FY2020-21 the availability of rice and wheat are 51174 MT that are gradually increased from the previous year. Table 1 shows the food availability status from FY 2010-11 to FY 2020-21.

Table 1: Availability of Rice and Wheat

(000 metric tons)

				•	•	
Fiscal	Availability			Percentage Share		
Year	Rice	Wheat	Total	Rice (%)	Wheat (%)	
2010-11	30913	4367	35280	88	12	
2011-12	30266	2597	32863	92	8	
2012-13	30005	2929	32934	91	9	
2013-14	30578	3680	34258	89	11	
2014-15	31785	5010	36795	86	14	
2015-16	31280	5450	36730	85	15	

2016-17	30206	6944	37150	81	19
2017-18	34960	6718	41677	84	16
2018-19	31923	6426	38349	83	17
2019-20	36615	7375	43989	83	17
2020-21*	45225	5949	51174	88	12

Source: BBS

Availability Rice ■ Availability Wheat Availability Total 2020-21* 2019-20 2018-19 38349 31923 2017-18 34960 41677 2016-17 30206 37150 2015-16 31280 5450 36730 2014-15 5010 31785 36795 2013-14 30578 3680 34258 2012-13 30005 32934 **292**9 2011-12 30266 32863 2010-11 30913 4367 35280

Figure 1: Availability of Rice and Wheat.

Figure 1 shows the availability of rice and wheat. The blue color indicates the amount of rice, red color indicates the amount of wheat and the green color indicates the total amount of rice and wheat. In 2019-2020 the rice is 36615 MT and wheat is 7375 MT and total amount of rice and wheat gradually increase. But, during Covid-19 in 2020-21 the total amount of rice and wheat has increased than the previous year though the amount of wheat is decreased.

The Production of Potato, Maize and Oilseeds

The other important food grains of Bangladesh are potato, maize and oilseeds that are produce in the country to ensure food security. In FY2017-18, the production of potato, maize and oilseeds were 9725, 3288, 1023 respectively. But during Covid-19, in FY2019-2020 that are 9606, 4015, 1040 respectively. The production of potato, maize and oilseeds from FY2010-11 to FY 2019-2020 are shown in table 2.

Table 2: The Production of Potato, Maize and Oilseeds.

(000 metric tons)

Production				
Potato	Maize	Oilseeds		
8326	1018	397		
8205	1298	408		
8603	1331	433		
8950	2087	495		
9254	2272	543		
9474	2446	553		
10216	3026	973		
9725	3288	1023		
9655	3569	1033		
9606	4015	1040		
	8326 8205 8603 8950 9254 9474 10216 9725 9655	Potato Maize 8326 1018 8205 1298 8603 1331 8950 2087 9254 2272 9474 2446 10216 3026 9725 3288 9655 3569		

Source: BBS

2019-2020 2018-2019 2017-2018 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 0 2000 4000 6000 8000 10000 12000

Figure 2: The Production of Potato, Maize and Oilseeds

The above figure 2 represents production trends of potato, maize and oilseeds from 2010-11 to 2019-20. The blue color indicates the production of potato that gradually increases but after 2016-17 it reduces. Its production is 9606 in 2019-20. The red color indicates the production of maize that is gradually increases and its amount in 2019-20 is 4015. The production of are shown in the green curve that also gradually increase and its amount in 2019-20 is 397.

21*

169

35991

4593

Food-grain Balance in Bangladesh

Net Food grain Production

Food grain Surplus/deficit

Bangladesh is a developing country where most of people's main occupation is agriculture. The total area of Bangladesh is 1, 47, 570 square kilometer. The food grain balance in Bangladesh is very important. In 2015-16 the population was 16 million and net food grain production was 31691 where net food-grain requirement was 29726. Nowadays during Covid19, the population increases 169 million in 2020-21 and net food grain production is 35991 and net food requirements is 31398. So the food grain in Bangladesh during before and covid19 period are shown the below table 3.

2014-2015-2016-2017-2018-2019-2020-**Items** 15 16 17 18 19 20 Mid. Year Population (in million) 158 160 162.7 164.7 165.6 167.6 Net Food grain Requirement 29354 29726 30097 23116 23385 23674 31398 **Gross Food grain Production** 36058 40943 36058 35115 37378 37408 37633

Table 3: Food-grain Balance in Bangladesh

Source: BBS

31691

1965

30862

765

32857.4

9741

32888

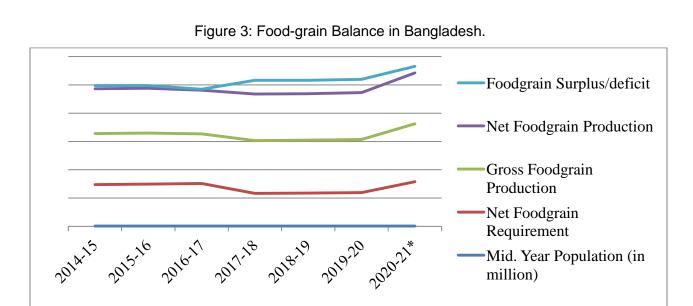
9504

33086

9412

31690.6

2337



In the above figure 3, the red color indicates net food grain requirement and green color indicates gross food grain production. Where in 2014-15 to 2016-17 remain both same level and gradually it reduces. But after 2019-20 during Covid-19 it gradually increases. The velvet color and the sky color indicate the net food grain production and food grain surplus/deficit that are gradually increase and after Covid-19 in 2019-20 also increases.

Public Food-grain Distribution by Commodity

Under the public food-grain distribution system government distribute food through monetized channel that includes subsidized distribution program such as Open Market Sale (OMS), Essential Priority (EP), Food friendly program and LE program and so on. In FY 2020-21 the public food grain distribution is 2183MT where rice is 1698MT and wheat 485MT. And that food grain distribution FY 2009-10 was 1962MT where rice 1309 and wheat 653. The public food grain distribution by commodity is shown in Table 4 from FY 2005-06 to FY 2020-21.

Table 4: Public Food-grain Distribution by Commodity.

(000 metric tons)

Year	Rice Wheat	Wheat	Total	Share of Total		
		vviicat		Rice	Wheat	
2005-06	1008	237	1245	81.00%	19.00%	
2006-07	1288	192	1480	87.00%	13.00%	
2007-08	1082	248	1329	81.40%	18.60%	
2008-09	1757	372	2129	82.50%	17.50%	
2009-10	1309	653	1962	66.60%	33.40%	
2010-11	1570	722	2292	68.50%	31.50%	
2011-12	1412	683	2095	67.40%	32.60%	
2012-13	1487	600	2087	71.30%	28.70%	
2013-14	1262	958	2220	56.80%	43.20%	
2014-15	1220	618	1838	66.40%	33.60%	
2015-16	1512	552	2064	73.30%	26.70%	
2016-17	1609	632	2241	71.80%	28.20%	
2017-18	1709	408	2117	80.70%	19.30%	
2018-19	1970	428	2398	82.20%	17.80%	
2019-20	2143	510	2653	80.80%	19.20%	
2020-21*	1698	485	2183	77.80%	22.20%	

Source: BBS

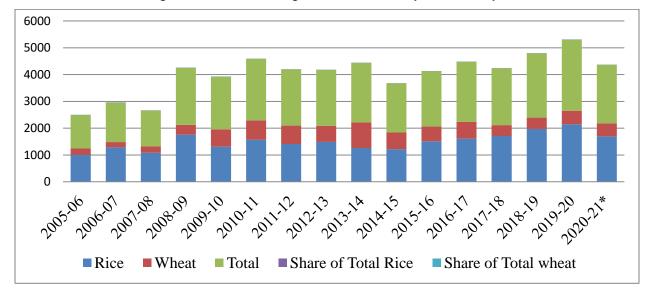


Figure 4: Public Food-grain Distribution by Commodity.

The figure 4 shows public food-grain distribution by commodity rice and wheat and share of total rice and wheat. Where before Covid-19 food grain distribution gradually increase. In 2019-20 it also increases but in 2020-21 it decreases.

Livestock and Poultry Production

The contribution of livestock sector in national GDP at constant price is 1.44 percent and share of livestock sector in agricultural GDP is 10.69 percent in FY 2020-21. The number of livestock and poultry production of Bangladesh in FY 2020-21 total livestock is 560.62 Lakh and poultry is 3585.46 lakh and that was in FY 2013-14 livestock was 535.90 lakh and poultry 3041.72 lakh. The table 5 shows the livestock and poultry production of the country over the few years.

Table 5: Number of Livestock and Poultry Population in Bangladesh (numbers in lakh)

Livestock/Poultry	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2021-21*
Cattle	234.88	236.36	237.85	239.35	240.86	242.38	243.91	244.42
Buffalo	14.57	14.64	14.71	14.78	14.85	14.92	14.93	15.01
Goat	254.39	256.02	257.66	259.31	261	262.67	264.35	264.94
Sheep	32.06	32.7	33.35	34.01	34.68	35.37	36.07	36.24
Total Livestock	535.9	539.72	543.57	547.45	551.39	555.34	559.26	560.61
Chicken	2553.11	2617.7	2683.93	2751.83	2821.45	2892.83	2966.02	2984.06
Duck	488.61	505.22	522.4	540.16	558.53	577.52	597.16	601.39
Total Poultry	3041.72	3122.92	3206.33	3291.99	3379.98	3470.35	3563.18	3585.45

Source: DLS, MOFL, *Up to February 2021

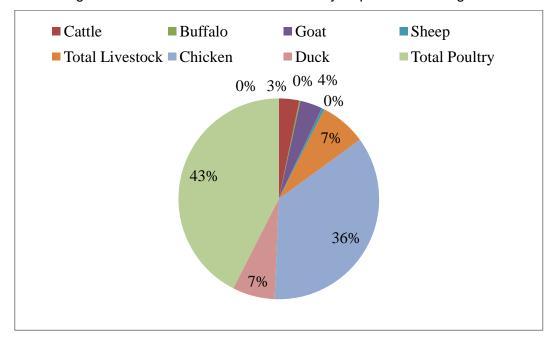


Figure 5: Number of Livestock and Poultry Population in Bangladesh

The above figure 5 represents 3% cattle, 4% goat and livestock is 7%. Besides, 43% total poultry where chicken is 36% and duck is 7%.

Impact of COVID-19 on Nutrition and Food Insecurity

The emergence of the COVID-19 pandemic has resulted in severe food insecurity as well as under nutrition in many resources limited settings where the food and agro-industry usually face difficulties due to inadequate infrastructures. On top of such structural inadequacies, when shocks and stressors such as drought, flood, or an epidemic occur, these events severely affect the food supply chain and cause food insecurity. A recent survey in urban and rural areas of Bangladesh revealed that around 90% of households were suffering from different grades of food insecurity during the first month of lockdown. The severity of food insecurity was higher in urban (42%) than rural (15%) households, and the poorest wealth index was significantly associated with mild and severe food insecurity. Rural households with mild food insecurity adopted either financial (27%) or both financial and food compromised (32%) coping strategies, but 61% of urban light food-insecure household have applied both forms of coping strategies. Similarly, nearly 90% of severely food insecure households implemented both types of coping strategies. A recent report further documented that nearly 70% of rural households in Bangladesh were suffering from some form of food insecurity during COVID-19 lockdown.

CHALLENGES AND OPPORTUNITIES OF FOOD SECURITY IN BANGLADESH Challenges in the way of Food Security

During the covid-19, the challenge of improving food security involves an interdependent set of issues involving government policies and institutions, domestic production system, the environment and international trade. The complexity of the various factors exacerbates the challenge of achieving food security such as persistent poverty and undernourishment, persistent population pressure, low level of investment in agricultural research and development and consumption trends and products changes without adequate technological preparation. Barriers include income poverty, inadequate storage and transportation infrastructure, trade barriers, political instability and lack of food safety and quality. The challenges can be summarized as follows:

- High incidence of malnutrition and hidden hunger, increasing population pressure.
- Lack of land and continuous shrinkage of land and water resources.
- Change in land use and land degradation and reduced land productivity.
- Weak agricultural diversity.
- Paradoxical pricing, volatility of food items in the domestic and world markets.
- Trade barriers and uncertainties in international trade,
- Labor shortages and high wage rate of agricultural labor.
- Climate change, agricultural diseases and fossil fuel dependence.
- Hybridization, loss of genetic engineering and diversity, political maladministration, food sovereignty laws.
- Narrow based exports and limited import potential due to fluctuations in foreign exchange earnings from remittances.
- Large number of food insecure populations, including severely unsafe.
- Seasonal changes in the food supply and positional changes in the food supply and disruptions in the food supply chain.
- Poor management in food management and poor coordination between agencies on the path to efficient food management.
- Unhealthy food and low food quality-lack of equipment and skilled manpower, lack of good governance for effective control of quality and safety.
- Unsafe Drinking water and arsenic contamination.
- High Economic poverty, high low employment resulting in low accessibility of food.
- Income inequality in society.



The opportunities of food security

- Intensity of land use in vast coastal areas and degraded basins such as haor and char lands where single cropping system predominates have potential for further increase in paddy production.
- It is possible to expand employment in the production of vegetables, pulses, oil seeds and fruits and animals sources such as milk, poultry and fish and in production activities which can improve human food security.
- Liberalization of fruits and grain import for food processing initiatives for domestic consumption or exports products.
- Increased export earnings from migrant worker and increased ability to import food through remittances.
- Increased investment in technology and skill development to ensure safe drinking water across the country.
- Regional variation in food security can be reduced by disseminating technology and knowledge among the farmers and consumers in backward regions.

Strategies of Food Security- Self Sufficiency and Self Reliance

There are two distinct strategies of food security that are followed in different countries depending upon circumstances. They are: 1) food self sufficiency and 2) self reliance.

During Covid19, the food self-sufficiency and self reliance are important matter for every country. Although Bangladesh is an agricultural country, she is not fully food self-sufficiency. These two strategies are significant for Bangladesh during covid19. Paul A.Dorosh1 argued that food self sufficiency is not prerequisite for food security. Increasing role of self reliance would increase the role of trade for food security with consequences of increased global integration. Trade policy of liberalization and investment in stocks may be necessary to pursue this strategy.

Paul Dorosh is conscious that pursuance of self reliance strategy may affect the interests of producers. He has suggested for a flexible trade policy to protect the interests of producers and long term food security. At the time of good harvests or steep declines in world prices or high subsidies provided by exporting countries may create disincentives for the producers affecting long term security of the country.

Food security strategy in the short run is determined by domestic production and world food supply and world trade situation. World trade environment is influenced by food supply situation in the global market, the magnitude of import liberalization and restriction, export liberalization and restriction. Bangladesh needs to monitor not only seasonal weather and domestic production but also global food supply and trade situation.

RECOMMENDATIONS

- Governments may need to support food supply chains to ensure that they function smoothly in the face of the crisis in order to stabilize food systems so that they can support food security and nutrition.
- National governments should encourage local communities and citizens to increase local food production, minimize food waste, and refrain from panic buying.
- o Governments should provide advice tailored for food workers involved in food production, handling and processing to help avoid catching and spreading COVID-19.
- Social protection mechanisms for the poorest and most vulnerable people during the Covid-19 crisis need to be employed that incorporate provisions on the Right to Food.
- Loan processing should be easy and equitable distribution.
- The social protection response should not be limited to food grain and cash distribution, but should integrate nutrition, such as providing seeds for homestead gardens and more diversified food baskets. Need to scale up and expand coverage social safety net programs.

CONCLUSION

The Covid-19 pandemic is predicted to create a global food crisis. Bangladesh is an agrarian economy affected by 'Covid-19' pandemic which was officially declared on 8 March 2020, and as a result the country went into lockdown on 26 March, 2020. The direct effect of Covid19 is food security of our most vulnerable group. The country's demand and supply of food is affecting directly to the vulnerable people and decreasing in purchasing power, reducing the capacity to produce and distribute food, and the intensification of care tasks are affecting indirectly. Infectious diseases are on the rise which will greatly increase the incidence of illness and death in our society in the near future. It can also be the result of higher crime rate in our society. To overcome this crisis, the government must take steps for several sectors or group.

The devastating economic impacts of COVID-19 reinforce the need for investments that prevent future outbreaks of such infectious diseases, recognizing the interconnections between people, animals, plants and their shared environment. Continued attention is necessary strengthen the resilience of food systems to such disease outbreaks but also to other shocks. During covid19, there is a need of comprehensive composition for indicating balanced nutrition to guide the policymakers and the people for conscious decision making on food intake for healthy life We have proposed a set of indicators in four pillars of food security, namely, in food availability, food access, food utilization and food stability for monitoring the progress of food security in a comprehensive frame. The proposal of the set of indicators of food security is in

modification of the ones designed by FAO. We have worked out a composition table for Bangladesh as standard and normative for balanced nutrition of food intake.

LIMITATIONS OF THE STUDY

This paper has some limitations. The food security during covid19 is a very important matter, it is very difficult to prepare such research work in spite of many limitations the research work has been prepared.

- The lack of sufficient time because such an important work requires a lot of time.
- Because of the lack of information, I do not properly complete my work.
- There are some sources of data which are unreachable and unverified
- 4. We have also the lack of knowledge about this type of study.

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