

Original Research

Impact of COVID-19 on Agro business in Bangladesh

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Abstract

COVID-19 has become an alarming pandemic for our earth. It has created panic not only in China but also in developing countries like Bangladesh. The COVID-19 pandemic has significant implications, including financial, economic, and social effects. It has caused massive negative impacts, especially in the agricultural sector. In rural areas, the poor farmers, dairy farmers, vegetable producers, poultry farmers are in deep crisis due to lower prices and lockdown issues. In this paper, we have summarized the Impact of COVID-19 on the Agro business in Bangladesh. The effects of the pandemic cannot be mitigated individually, but an integrated effort on the part of the state authority and the part of people from all sectors need to come forward.

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INTRODUCTION

COVID-19 is causing human suffering all over the world; we should all be focused on that. COVID-19 spreads economic misery most certainly all over the world. The virus can be as economically contagious as it is medically so. The newly evolving SARS virus doesn't come into the world for the first time; it belongs to the corona virus family. Though these viruses are common in animals, some affect humans.¹, ²The virus was named as a 2019 novel corona virus by the World Health Organization (WHO), and the present reference name for the virus is severe acute respiratory corona virus syndrome 2 (SARS-CoV-2). This virus has affected the lower respiratory tract in pneumonia patients. ³The outbreak began at a Wuhan wholesale market where workers slaughtered animals such as dogs, pigs, rats, cat, civets, and snakes etc. ⁴Although novel corona virus was first traced in Wuhan, China,

in December 2019 the number of affected people is gradually enhanced within a month and spreading in Italy, USA, France, Iran and Thailand, South Korea, Japan and many more which is knocking the world for experiencing such outbreak. ³

On 8 March 2020 the Institute of Epidemiology, Disease Control and Research (IEDCR) first announced a corona virus pandemic in Bangladesh.⁵There are lots of actions taken by the government of the affected countries to stop the spread of this virus, such as regional or national quarantine throughout the country and the world, travel restriction, workplace hazard control, cancelation and postponement of events, curfews, border enclosure and screening at airports and train stations etc. Such types of preventive measures, such as border lockouts, may impede the normal flow of raw materials, goods and services, resources, and people, resulting in shutdowns of business and production at least temporarily. ⁶This

pandemic has led to acute socioeconomic disruption in the global economy, such as extensive fear of supply shortages resulting in panic buying. All major economies, such as the G7 nations, which share 65% of world production, 60% of world demand and supply (GDP), and 41% of world exports, have been seriously affected by this pandemic and will be followed by other nations. Mauro B.W. (2020) termed these outcomes as macroeconomic flu - temporary negative demand and supply Shock-temporarily triggering a decrease in production, followed by rapid recovery and the prospect of complete catch-up on the shortfall.⁷ But this happens when it's a common flu not like COVID-19 epidemic that is causing large-scale, regional, and probably permanent economic disruption. To avoid corona virus outbreak, Bangladesh's government also announced a 10-day shutdown on March 22, effective from March 26 to April 4 later the shutdown is increased to April 10, 2020. As Bangladesh is an agricultural developing country, Bangladesh's agribusiness sector (Figure 1) faces a lot of challenges because of COVID-19. Among the most researched epidemiological, socioeconomic, and clinical issues of the virus and its spread, there are so many papers written. Very few researched agro-business sectors in developed countries. This paper seeks to describe the current and future implications of COVID-19 for Bangladesh's Agro market.



Figure 1: Agricultural sector of Bangladesh.

The scenario of COVID-19 in Bangladesh

So far, the COVID-19 pandemic has spread to 188 countries and territories, infecting 6.7 million people and affecting the global economy significantly. Since the corona virus exponentially grew, even the

developed countries were unable to contain its spread. COVID-19 has left more than 390,000 people dead. With high population density, we can't even think of how deadly the highly infectious disease would turn if it spreads in India or Bangladesh from a moderate category to a heavy. As of 1 June 2020, 49,534 confirmed infections from the novel corona virus outbreak with 672 deaths in Bangladesh. The coverage of COVID-19 tests in Bangladesh has gradually increased to 1880.1/MN but is still lower than in Thailand (6.026/MN), India (2.873/MN), and Nepal (6.382/MN). The country's institutional quarantine capacity is represented by 629 centres across 64 districts that can accommodate 31,991 people. Around 17 March and 01 June 2020, a total of 272,339 people were put under house quarantine all over the county and 80% have already been released to date. Remaining 20% (55,465 people) are now in quarantine at home. Bangladesh's government first placed a nationwide lockdown on March 26 in its bid to contain the pandemic and has extended it six times so far, and eventually agreed to carry out the country's overall activities on a conditional basis from May 31, 2020. A ban on passenger travel via water, rail, and domestic air routes has been imposed by authorities from March 24, while all public transport on roads is suspended from March 26 to May 31, 2020. Only buses, covered vans, and vehicles carrying medicine, gasoline, and perishable goods remained outside the lockdown purview. Hospitals, health centers, food markets, pharmacies, flower markets, and banks remained open for vital services to be rendered.

The Economic Implications of the Pandemic

Like most other nations, the COVID-19 pandemic outbreak poses an unprecedented shock to Bangladesh's economy. Bangladesh's concern is higher, as the economy was already in a state of parlous before COVID-19 struck. Bangladesh's economy is likely to face a prolonged period of slowdown in development with the prolonged country-wide lockout, global economic recession, and subsequent disruption of demand and supply chains. The extent of the economic effect would depend on the duration and severity of the health

crisis, and how the situation unfolds when the lockout is lifted. On April 9, International Monetary Fund Leader Kristalina Georgieva said the year 2020 may see the worst global economic effect since the Great Depression in the 1930s, with more than 170 countries expected to experience negative GDP growth per capita due to the raging corona virus pandemic. Declining domestic and global demand for manufactured goods, particularly in the agricultural and clothing sector, risks creating unemployment and worsening poverty. It is estimated that the urban poor will be hardest hit while the number of additional poor in rural areas will be higher, as the national shutdown would affect private consumption.

Impact on Agro Business

Gatiso et. al. discovered that the growth of agriculture had declined during the EVD pestilence, in comparison to its earlier year of progress. ⁸ This ongoing decline could be due to a decrease in the size of cultivable ranches activated by the end of business sectors and the absence of go-between buying rural items from ranch entrances and transporting them to market sites. In Bangladesh, dairy farmers have sought immediate government help, as they are unable to sell milk due to the countrywide lockdown. Every day about 12 to 15 million liters of milk remain unsold across the country, causing the marginal dairy farmers to suffer Tk 570 million in daily losses. Bangladesh currently produces 9.9 million tons of milk per annum, 70% of total national demand. But lockdown has left around 12 to 15 million liters of milk unsold. The dairy farmers in the country are in deep crisis because they are forced to sell milk somewhere in the country at Tk 10 to Tk 12 a litter, although they cannot sell at all in other areas. ⁹ Bangladesh's fares, on the other hand, make up more than 70% of the crabs on the Chinese market. This year China stopped bringing in crabs in an offer to stem another COVID-19's episode. Due to the case, China's poultry industry suffered a loss of more than RMB 40 billion. At the same time, consumer trust in poultry products declined which had a major effect on the cost of meat and poultry. Thus, the Central Council of Bangladesh Poultry Industries (BPICC) said that the price of poultry chicken and eggs has dropped on the market as a result of the shutdown that has

caused devastation in the poultry sector. Between Tk1, 150 crores, and Tk 1,650 crore, BPICC anticipated their misfortune. In the case of vegetables, it is assumed that \$20 million of export earnings will be lost due to the outbreak of Covid-19 Bangladesh.

The government should take actions to Ensure Future Food Security

For our economy, agriculture is a big sector and is key to raising our food insecurity. Farming now doesn't just mean rice, vegetables, or fruits- it also involves fishing, poultry, livestock, etc. As the planet has never before encountered such a thing as Covid-19, the situation may also impact the agriculture sector. There's no question that the agriculture sector is going through a big crisis now. Disrupting the entire supply chain and reducing labour mobility due to social distance and decreased transport are just a few of the problems. This is the time to harvest crops in the region, and the advent of mechanization in agriculture reduces a shortage of available labor. We do need to think about the farm labour population, their next, or potential work because they are losing their employment due to both this pandemic and mechanization.

The government of Bangladesh has launched a Tk5,000crore stimulus package for farmers with an interest rate of 4 percent, which is also very satisfying news for agriculture. The problem also arises here regarding the Farmers' interest rate argument. Netizens and experts recommend not just growing farmers' interest rates but also making them 0% because it's not only about farmers' credit. This stimulus package would help run the supply chain, transfer and distribute raw materials, and assist farmer's generation outputs. This stimulus package covers funding, financial management, and overall supervision. A further concern now is the distribution of this stimulus package itself. That's because there's no such database available, so defining, tracking, so assessing the correct distribution channel would be a real challenge. Local monitoring may be carried out through NGOs or local government, but, too, the question of accountability and effectiveness lies within it. A commodities and services market-management crisis is to be expected shortly. Originally, it was thought that in the

current Boro rice season there would be a labour crisis, but the grassroots administration and government authorities have taken significant measures that have minimized the problem amid several barriers.

A global problem can be seen in the agriculture labour market, where rice or other staple crops may be massively harvested. Nonetheless, it cannot be said now that despite having a large yield there will be no crisis in the rice industry. Now a decrease in people's buying power has caused a decrease in demand. It is also used in the aquaculture market. Cultivated fish such as pangash and tilapia were bought mostly by citizens of the middle class, and they are now struggling to afford it.

In the dairy and poultry sectors, the same situation is used as well. Since maximum raw materials are imported for feed, an interruption of the import-export industry would trigger a poultry feed crisis. The Department of Agricultural Marketing will play a crucial role in solving this problem in both the Covid-19 and post-COVID-19 circumstances. They are already purchasing perishable products from farmers and middlemen and distributing them to the appropriate areas. While this is an infrequent practice, it still helps. It is high time that "big data idea" had been implemented in agriculture. We have a simple definition and expertise in agriculture, but in this pandemic, we are lagging due to the lack of proper analytical data. A detailed database of farms, producers, goods, goods, markets, prices, etc. would have made it easier for the Bangladesh government to better determine and administer the stimulus package for the agricultural sector.

We always complain about the fact that farmers do not get proper prices for their goods. The Department of Agricultural Marketing authority will now lead and retain a powerful role and have market control. The department will now begin to function more comprehensively at the Upazila level. Although neglecting local government, relying solely on the central government is not a viable way to address the problems at all. Also, ensuring the protection of health and providing the requisite medical support to farmers and farm-related citizens must now be a priority. Until the remedy is in place, advertising on health precautions for farmers can be taken in local media. The adoption of new economic models for a

sustainable supply chain and consumer support is what the farming sector needs most at the moment.

COVID-19 and Agricultural Difficulties in Bangladesh

Plagues and epidemics have plagued mankind throughout its lifetime, sometimes altering the course of history and, often, signalling the end of entire civilizations. A variety of plagues, epidemics have pulverized the human race over the last century. There are few reported in Spanish Flu (1918-1920), Asian flu (1957-1958), H1N1 Swine Flu Pandemic (2009-2010). Now, that Covid-19 (Corona virus) affects humanity. All the plagues and epidemics have altered human history, particularly in terms of the economy.

This Covid-19 pandemic is expected to be no different and the worst thing is that it may have the greatest impact on the world's economic future given the time we stand in history. Many of the world's leading economists have forecast a transition in the global economy that will leave many unemployed and therefore may trigger the greatest post-WWI recession. The economist claims the corona virus pandemic is the first epidemic to strike both developed and emerging economies since the 1930s. The recessions can be long and deep. Sovereign defaults will likely spike, as they did in the 1930s. In bad times, calls to curtail trade and capital flows find fertile soil. Doubts about global supply chains of pre-corona virus, the protection of international travel, and national worries about need self-sufficiency and resilience are all likely to continue even after the pandemic has been brought under control. The financial architecture post-corona virus may not take us back to the Breton Woods pre-globalization period, but the harm to international trade and finance is likely to be substantial and lasting.

Along with all of the above, agriculture can play a big role in a country like Bangladesh in overcoming the upcoming post-COVID-19 challenges. Bangladesh is already a country that is pretty dependent on agriculture. About 87% of the rural population earns at least some agricultural income. Two-thirds of rural households are, however, dependent on both farm and non-farm incomes. Low growth in agriculture

has boosted the non-farm economy in Bangladesh: a 10% rise in farm income produces a 6.0% increase in non-farm income. As non-farm incomes continue to rise, the government needs to concentrate on fostering a more stable, post-COVID-19 rural non-farm economy. What is exciting is the fact that when it comes to growing rice in the world, Bangladesh now comes in sixth. In this bleak scenario, this is really good news. It works in two ways, first, with this, we can feed the country's population and think about exporting the crop. That is going to help the economy tremendously. It is encouraging to see that Bangladesh is all set to begin commercial production of jute polymer-based bags which are biodegradable and therefore environmentally sustainable, unlike plastic bags.

In addition to jute bags, Bangladesh will look for fresh and innovative goods — going beyond the obvious jute merchandise — such as jute charcoal and jute tea; and as younger consumers are more involved in the environmental effects of their shopping habits, these items will be seen as fashionable, thus further strengthening our economy. Jute-based fabric can be an option that may be explored to reap the benefits in the future. One of the brightest prospects when it comes to fighting the post-COVID-19 era can be vegetable farming, especially organic vegetable farming. Organic vegetables do carry the promise of investment as well as being environmentally friendly. Therefore, it is one of the choices to be followed. Vegetable farming has gained prominence on riverside banks and terraces. We need to exploit this opportunity.

Fisheries is another export commodity on which we will look to capitalize. Bangladesh exported 68,655 tons of fish and fishery products worth around Tk 38.45 billion (3,845 cr) in the fiscal year 2018-19, according to our Minister for Fisheries. Bangladesh exports fish and fishery products to more than 50 countries around the world including the United States, China, Japan, and Russia. Approximately 68,655 tons of fish and fishery products were exported abroad during the 2018-19 fiscal year, while Bangladesh earned Tk 38.45 billion (3,845 cr) (\$455 million) revenue from exports of fish and fisheries products. There were 31,158 tons of shrimp worth 29.16 billion Tk (2,916 cr) of the total export

volume. So, as we can see, it's already an established sector that needs just a bit of push.

We can use these agricultural products along with others to combat the demand that is expected to be challenging in the coming years. Bangladesh has great potential to increase agricultural incomes, increase agricultural productivity, and make it more resilient to climate change and boost crop nutritional value, according to the World Bank. We need to take that into account. A solid supply chain should be of utmost importance along with all of these so that the product will meet the final customer, whether at home or abroad. In this way, in the coming years, Bangladesh will be well-placed to counter the economic woes. The national lockdown strategy includes several protective measures resulting in restricted access to agricultural products, inputs, markets, and extension and consultancy services (EAS). The sanctions have a huge effect on agriculture including supply and demand for food. Meanwhile, protectionist policies and labour shortages have already created problems in the farming sector. To maintain food security and socio-economic growth, taking proactive steps to increase economic resilience, enhancing the capacity to cope with pandemic-related situations and rising vulnerability of farming communities is essential. Findings from different studies indicate that corona virus has a significant effect on agriculture. Fish and dairy producers already bear their brunt in the region. Crab, shrimp, and fish producers, for example, faced several export bans which resulted in significant economic loss.

Bangladesh exports make up more than 70% of the Chinese market's crabs. An export ban in China signals a major setback for the crab industry in Bangladesh. The current milk market price is 40% lower than the January market level. The virus may have devastating effects on the dairy industry. Additionally, there are also dropping prices for fruits, cattle, and other agro products. Small-scale farmers are vulnerable to the Covid-19 impacts, as they may be barred from operating on their land or accessing markets to sell their produce, buy seeds, and other inputs.

People visit food markets less often during the lockdown period, impacting their food choices and consumption. Demand for food is tied to wages. Hence the reduction of earnings from poor people

may affect consumption. Many policy interventions aimed at preventing Covid-19 from spreading further are likely to impact agricultural production and trade. The output may be hindered by limits on the free movement of people as well as a shortage of paddy harvesting seasonal workers. Ultimately, such obstacles influence consumer prices. Agricultural restrictions hamper commodity trade and mobility, including grain, feed, and input supplies, as the suspension of national transportation could impact farming and food commerce. An increasing concern for the upcoming season is the decline in fertilizer, fuel and other input movements, and their reduced availability. Research indicates that barriers to trade are likely to generate extreme volatility. The government needs to take appropriate steps to improve its capacity to cope with current circumstances and reduce the insecurity of farmers, labourers, and communities of agri-business.

The immediate demand for the affected farmers must be met. The Department of Agricultural Extension (DAE), Department of Livestock Services (DLS), Department of Fisheries (DoF) and allied organizations must ensure emergency crops, fertilizers, feed, medicine, and information needs. Such organizations are at the forefront of the Covid-19 response to ensure sustainable farming and food health. We need to take steps to raise awareness of corona virus in rural areas and ensure better coordination on access points for farming inputs, delivery times, and risk management measures. The DAE, DLS, and DOF should launch programs to evaluate the situation in the field and advocate for urgent solutions to the needs of farmers and keep the government updated, thereby allowing for swift and effective decision-making to ensure the health and food supply. We may also be instrumental in developing alliances to resolve market disruption. This is important to encourage public health initiatives, such as maintaining physical distance and equipping personnel with protective measures such as masks, hydro-alcoholic gels. Similarly, it is important to improve economic development measures to protect wages and purchasing power. Bangladesh's prime minister rolls out Tk. 50 billion support for the agriculture sector to alleviate the effects of the Covid-19 outbreak on a national shut down. The network of EAS players, including NGOs, the private sector, producer organizations, and

farmers' groups, has proven very useful in providing conditional or unconditional cash transfers, public works initiatives helping to reduce unemployment or policies aimed at stabilizing food prices and protecting incomes from devastating healthcare costs by ensuring that critical healthcare costs are protected. Effective steps (such as providing subsidies to producers and raising tariffs on imports) are required to ensure relief from trade barriers to sustain supplies of food, feed, and inputs. In terms of physical distancing and mobility constraints, the DAE, DLS, and DOF will adopt the "go digital" strategy to allow knowledge flow to avoid unintentionally tightening food supply conditions. It is essential to overcome logistical bottlenecks and attempts to slow the spread of the virus.

The government needs stimulus and safety-net initiatives (such as health screening before leaving agricultural industries) to minimize impacts on the supply of farm goods, pickup employees, and processors. The Ministry of Agriculture and the Bangladesh Agricultural Development Corporation will take steps to minimize the impacts of the slowdown in movement and availability of agricultural inputs. The organizations will implement firm programs to restore rural people's livelihoods. Such initiatives include encouraging linkages with social security and insurance programs and supporting the growth of nutritious varieties and species locally and domestically. Other steps are to improve youth and women's capacity on farming problems and to promote the restoration of social relationships and conflict resolution. Governments need to improve EAS's capacity to respond to the post-pandemic crisis.

Conducting an impact assessment for Covid-19 is of vital importance for assessing the impacts of the pandemic on people's lives and livelihoods to recognize promising policies. Defining what assistance, the government of Bangladesh needs from development partners such as the World Bank, is also important. Also, it is necessary to devise agricultural emergency preparedness plan to resolve current and impending economic slowdowns and downturns. The Covid-19 poses a tremendous threat to people and the world. Meticulous planning is important for curbing virus spread and safeguarding the economy. Governments need to meet the demands of the farming community in the

near term and take urgent steps to combat existing economic adversity. Governments must invest wisely in the medium to long term to diversify the agrarian economy from commodity dependence, which reduces financial vulnerabilities and creates the capacity to withstand and recover from economic slowdowns and downturns.

Conclusion

The end of this pandemic is unknown as pandemic only spread in Bangladesh. Recovery from disease is the main priority in this case, rather than considering the economic effects. In general, the current economic condition could seriously undermine the welfare of the population's underprivileged cohort. Lack of access to basic education, sanitation awareness, and the social safety net has always been a challenge for this generation, and the pandemic is likely to dramatically escalate challenges. The issues that need to be highlighted in the development of agriculture and the farmer's benefit are the expansion of rice and flour sales to the Upazila stage at government-fixed rates in the open market so that ultra-profit traders can't syndicate and raise unnecessary prices. Keep an eye on our most reliable current crop, so there is no lack of irrigation in Boro rice. Keep an eye on Haor area crops so as not to be affected in advance by heavy rains or floods. Giving farmers advance guidance on the crops to be harvested next season; reducing irrigation and agricultural machinery costs; curing crop disease is required. The farmers should be particularly aware of the fair value of their products; keep a watchful eye on raising agricultural subsidies.

References

1. Adhikari S. P., Meng, S., Wu, Y., Mao, Y., Ye, R., Wang, Q., Sun, C., Sylvia, S., Scott Rozelle, S., Raat, H., and Zhou, H. (2020) Epidemiology, causes, clinical manifestation and diagnosis, prevention and control of coronavirus disease (COVID-19) during the early outbreak period: a scoping review, *Infectious Diseases of Poverty*, 9:29.
2. WHOa. (World Health Organization): Corona virus disease (COVID-19) situation reports.2020. <https://www.who.int/emergencies/diseases/novel-coronavirus2019/situation-reports>. Retrieved 09 March 2020. 2020.
3. Uddin, M. B., Hasan, M., Rashid, A.H.A., Ahsan, M. I., Imran, M. A. S., Ahmed. S. S., U.(2020). Novel Coronavirus (COVID-19): Molecular Evolutionary Analysis, Global Burden, and Possible Threat to Bangladesh. *Nature Research*.
4. Chen, L., & Hong, J. (2020). Corona virus hits China's workers as businesses say they can't pay wages now. *Fortune*. Accessed 31 March 2020, from <https://fortune.com/2020/02/19/coronavirus-china-workers-businesses-pay-wages/>.
5. IEDCR, (2020). Research Institute of Epidemiology, Disease Control and. corona.gov.bd. Retrieved 27 March 2020.
6. Barua, S.(2020). Understanding Corona nomics: The economic implications of the coronavirus (COVID-19) pandemic.
7. Baldwin, R., and di Mauro, B.W. (eds). (2020). *Economics in the Time of COVID-19*. A VoxEU.org Book, Centre for Economic Policy Research, London. Accessed 26 March 2020 at <https://voxeu.org/system/files/epublication/COVID-19.pdf>.
8. Gatiso TT, Ordaz-Ne ´meth I, Grimes T, Lormie M, Tweh C, Ku ´hl HS, et al. (2018) The impact of the Ebola virus disease (EVD) epidemic on agricultural production and livelihoods in Liberia. *PLoS Negl Trop Dis* 12(8): e0006580. <https://doi.org/10.1371/journal.pntd.0006580>.
9. Roy R. (2020), Mitigating Covid-19 impacts on food and agriculture, Published: April 03, 2020, 22:44:24 | Updated: April 04, 2020, 22:12:34. <https://thefinancialexpress.com.bd/views/mitigating-covid-19-impacts-on-foodand-agriculture-1585932264>.

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