Socio-Demographic Depletion Due to COVID-19 Impact and Government Intervention: A Review in Bangladesh

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Abstract: COVID-19 known as coronavirus disease, has been dominating the headlines all over the world since about a year ago which is now almost under control. The World Health Organization (WHO) has labeled it a pandemic. Bangladesh is struggling with this virus with its scarce resources. Nearly two million people have been reported as confirmed cases of coronavirus disease in 185 countries worldwide in the five months after the virus first emerged in December 2019. The COVID-19 pandemic affected people directly or indirectly all over the world. There has been a slowdown in all sectors worldwide and most of the global population was placed under lockdown. The families of 43.9 percent of the students might live in poverty, and export revenues from RMG fell by 18.12% from the previous year. Households in Chittagong city corporation experienced the least decrease in average income (11.7%) while the households in Sylhet city corporation experienced the most reduction in average income (63.4%). This COVID-19 created a widespread global shock. The government of Bangladesh has declared several stimulus plans worth a combined total of about USD 11.90 billion for the agricultural sector to ensure the country's food and nutritional security, for doctors, nurses, and the homeless for social safety, and for business sectors including small and medium enterprises and cottage industries at the early age of pandemic. There were 23 COVID-19 stimulus packages total across the nation, with a total outlay of USD 1.23 billion which is 4.44% of GDP. Approximately USD 3,529 million for the service sector and the impacted industries, USD 589 million to cover workers' salaries/allowances, and those of staff working in industries focused on exports were allocated as a package to tackle the serious impact of the COVID-19 pandemic.

Keywords: Corona Virus, COVID-19, Pandemic, Impact, Socio Economic, Economic, Bangladesh

Introduction

COVID-19 sickness is brought on by the SARS-CoV-2 new coronavirus. The first case of coronavirus was reported in Wuhan, China. A group of patients with pneumonia with unknown causes were recorded for the first time in December 2019 in the Chinese city of Wuhan, in the province of Hubei, (Du *et al.*, 2020). Then it changed as a pandemic all over the world. Though a maximum number of cases were found in China then the virus was out broken, which began in Italy and expanded to the United States, France, Iran, Thailand, South Korea, Japan, and many other countries within a month, is shocking the entire world (Uddin *et al.*, 2020).

The coronavirus appeared first from the nasal cavities of patients who suffered from the common cold in the mid-1960 s (Gottesman, 2022). The virus was classified under the family corona viridian. It had enveloped virions that measure 120 nm in diameter. The name is derived from how they appear under a microscope.

The virus comprises a genomic core encased in a spike-like protein envelope. This makes it look like a



crown. Latin's word corona translates to "crown". Mankar *et al.* (2020). The worldwide coronavirus disease 2019 (COVID-19) pandemic has spread to become a serious hazard to public health. Coronavirus 2 is a highly contagious and dangerous virus that causes severe acute respiratory illness. The COVID-19 pandemic sickness has posed a major threat to human health on a global scale.

A developing nation like Bangladesh has also been negatively impacted by the worldwide pandemic. On March 7, it announced the first COVID-19 case in Bangladesh, however, several scientists theorized that nCoV-2 may have infiltrated the country earlier but had gone undetected due to insufficient monitoring (WHO, 2020a). The first three coronavirus infections in Bangladesh were reported by the Institute of Epidemiology, Disease Control and Research (IEDCR) on March 8, 2020. There are currently (2,022,408) coronavirus cases across the nation and there have been (29,359) fatalities (September 27, 2022, world meter) COVID-19 appears to be spread from one person to another by respiratory droplets, close contact, and flies in the person's immediate environment (Perera, 2020).

From March 2020, as a precaution against the spread of nCoV-2, Bangladesh began to postpone all large events, including the 100th anniversary celebration of the birth of its founder, Sheikh Mujibur Rahman (Nahid, 2020) Despite these precautions, tens of thousands of people assembled at Lakshmipur for a special prayer session to be protected from nCoV-2. Afterward, the Government imposed a ban on all public gatherings for political, social, cultural, and religious reasons (BD news 24.com, 2020). Bangladesh government said that starting on March 26, a 10-day lockdown would be in effect. Road transit is suspended and travel by sea, rail, and air is prohibited. Except for pharmacies, grocery stores, and other inescapable requirements, all non-essential organizations, enterprises, and educational institutions are closed.

April 5 was the time when the country placed a ban on all overseas travel until April 14 with the exception of flights to and from China (Jenkins, 2020). Cox's Bazar, a region in the south of the nation where many Rohingya refugees reside, was also placed under a particular lockdown. BBC News (2020) a significant risk to global economies and human health.

Almost all economic activity across the country has already ceased, with the exception of agriculture and thousands of jobs are now in jeopardy.

International trade orders are being significantly canceled, particularly in the ready-made clothing industries (Islam *et al.*, 2020a). Most people in Bangladesh are subsistence farmers. The lockdown has been in effect since March 8, 2020, and the population was going through a very hard time. The nation's economic strength was likewise declining daily. Every day, the jobless rate rises which are partially caused by the

pandemic. Healthcare systems of most countries have failed to combat this pandemic disease. Bangladesh has an economy with a lower middle class and one of the densest populations. So, an outbreak of this COVID-19 continues to evolve very rapidly in this country. In developing countries, both government and private sectors may increase the debt at the availability of credits at a lower interest rate.

Nowadays, Bangladesh has almost overcome the odd situation caused by COVID-19. Most countries all over the world are also in a very good position in terms of the pandemic COVID-19.

The COVID-19 epidemic, however, almost changed the world's economy, the lifestyle of people as well as whole socio-economic conditions. This study tries to present the COVID-19 pandemic's effects on people's socioeconomic circumstances and the global economy of the country by the following precisely defined goals:

- 1. To understand how COVID-19 has affected the socioeconomic circumstances in Bangladesh
- 2. To highlight the actions performed by the Bangladeshi government to combat the pandemic

Materials and Methods

This study is completely a review paper & prepared according to secondary data.

As a result, information is gathered from books, journals and various published articles and reports by various research agencies, policy experts, and newspapers. Besides this, the website is used to take information from the online platform. Living in the middle age of the coronavirus era with a limited publications on the COVID impact, making a formal systematic review or meta-analysis is quite difficult. Given the prioritized, on the few available studies, two specific objectives are designed to construct the review. Through the paper, we try to focus on the issues of social deterioration of the general people due to coronaviruses and the initiatives taken to fix it in the context of Bangladesh.

Review of Findings

Millions of people were out on the streets in Bangladesh at first since there was no clear protocol in place, especially in Dhaka, a megacity with a population density of 30,093 people per square kilometer. BBS Aug 5, 2022 1,942,680 COVID-19 cases, including 29,033 associated deaths (CFR 1.49%), were confirmed by RT-PCR, GeneXpert, and rapid antigen tests between 8 March 2020 and 27 February 2022.

Bangladesh contributes 0.45% of the global COVID-19 cases and is the 41st most frequently reported country.

Socio-Economic Impact of COVID-19

Because COVID-19 is a pandemic, its outbreak has alarmed people all throughout the world, not only in

China. COVID-19 had a devastating effect on society as well, especially in poorer nations like Bangladesh. Panic erupted in society during the early stages of the COVID-19 pandemic. The 2013 SARS outbreak in China had a significant effect on Chinese society.

Due to the dissemination of rumors and the lack of reliable official information, social fear swept through society (Qiu *et al.*, 2018). The COVID-19 epidemic has caused a shocking loss of life on a global scale and poses an unprecedented threat to food systems, public health, and the workplace.

Tens of millions of people are at risk of living in extreme poverty as a result of the pandemic and the number of people who are undernourished, which is currently estimated to be close to 690 million, could rise by as many as 132 million by the end of the year (joint statement by the ILO, FAO, IFAD, and WHO). According to predictions made by the Center for Policy Dialogue (CPD), those who depend on daily salaries and low-income groups will be most negatively impacted by COVID-19. In this case, COVID-19 has triggered a crisis in socioeconomic sectors, and self-isolation, preserving social distance, hygienic precautions, and travel limits are among the prevention efforts (Nicola et al., 2020). 60% more people now live in extreme poverty and 14% of people don't have access to food at home (BRAC, 2020). Around 820 million people are experiencing hunger. The scarcity of food supply and insufficiency of balanced diets might bring about a double-fold health hazard for these people, whose immune system is to decline and turn them vulnerable to COVID-19 attack (Dalal et al., 2020). According to a recent study, the national estimate of the nation's new poor is likely to remain high in May 2022 as a result of inflation and a slower-than-expected economic recovery from the COVID-19 shock among the vulnerable non poor 18.54% was the national estimate of the "new poor" in May 2022 the financial express, June 5, 2022.

Impact on Education

The pandemic has decimated educational systems around the world, forcing a large number of schools and universities to close. Due to COVID-19, all schools and universities were closed nationwide on 25 March 2020 in 165 nations. With localized closures included, this affects more than 1.5 billion kids worldwide or 87% of those who are enrolled in school. (Ogunode, 2021). Beginning on March 17, 2020, COVID-19-related school closures in Bangladesh continued throughout 2021, affecting close to one million instructors and 38 million students. Child marriage happened in the case of 462 girls in June, which is a higher number than typical. Institutional closures and insolvency are major contributors to this increase (Sifat, 2020).

The primary responsibility of the government was through TV-based educational campaigns and internet

venues. However, the online education system presented some difficulties for both teachers and pupils. It was discovered that professors weren't properly prepared and didn't know enough about technology to run online lessons. In contrast, many students who lived in rural areas were unable to engage in online classes because they lacked a digital device and had a poor internet connection. A large majority of students faced financial difficulty and were unable to pay for education. Students in their final year of college are under psychological pressure because they didn't take advantage of opportunities to apply for various employment circulars. The tight situation forced educational institutions in Bangladesh to suspend academic activities.

The government is attempting to implement policies to address the problems and it's a matter of hope that the Bangladesh Government almost overcomes the crisis with the cooperation of teachers and students as well as guardians of the students. A list of COVID-19-affected learners during the peak pandemic situation on April 5, 2020, is illustrated below.

Figure 1 a total of 39, 936, 843 students are affected, of whom 3, 578, 384 are pre-primary students, 17, 338, 100 are primary students, and 15, 869, 820 and 3,150,539, respectively, are secondary and tertiary students. Among all of them, most victims of this coronavirus pandemic are primary and secondary-level learners.

Impact on Income

The population in Bangladesh has been severely impacted by COVID-19. Although everyone will be affected by the crisis and household income is expected to have decreased on average by 19%, those with middle class earnings are expected to have the greatest income loss. Due to COVID-19, household income had decreased by 29%. with the Dhaka metro area experiencing the highest fall in income at 34%. Within the first ten days of the government lockdown, 6% of all households lost all of their income, while the COVID-19 problem caused 50% of households to lose at least one-third of their income. Children and young adults are particularly heavily hit and lower salaries could have a terrible impact on family wellbeing in general. There is evidence that families are turning to unhealthy coping mechanisms like limiting food consumption in reaction to income loss, which is likely to harm children's health permanently and ultimately Bangladesh's human capital development and future prospects. But, surprisingly those adverse impacts on household income almost recover and are currently in a very good position because of the Bangladesh government's quick and successful initiatives.

Figure 2 implies that the average monthly income among beneficiary households has consistently decreased in all city corporations and Pawrashavas. Households in Chattogram city corporation experienced the least decrease in average income (11.7%) while the households in Sylhet city corporation experienced the most reduction in average income (63.4%) (Al Mamun *et al.* 2022). Mahmuda Khatun et al. / American Journal of Infectious Diseases 2023, 19 (1): 1.12 DOI: 10.3844/ajidsp.2023.1.12

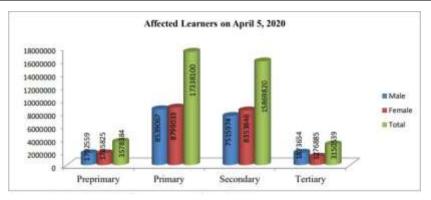


Fig. 1: Total affected learners on 5 April 2020; source: (Begum et al., 2020)

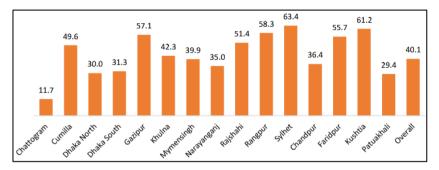


Fig. 2: Percentage of income decrease in different towns after lockdown compared to baseline; source: (Dhaka: HDRC and UNDP)

Impact on Healthcare Facilities

A better explanation of the pandemic condition in Bangladesh may be found in the healthcare readiness and capacity against COVID-19.

From Table 1, we can see that, the number of COVID-19 affected cases is highest in the capital city, Dhaka (1180029) and cases of death also highest in Dhaka which are 12744 but Cumulative Case Fatality Rate (CFR) is the lowest (1.08%). COVID-19 affected cases and cases of death in Coronavirus are lowest in the city of Mymenshing which are 43444 and 877 respectively. CFR% is highest in Khulna Division and it was 2.89%.

Table 2 shows that the coronavirus in Bangladesh testing rate (0.34%) is the second-lowest in South Asia, only behind Afghanistan, and the highest rate of testing in the Maldives. In Bangladesh, its primary causes can be due to the few testing facilities (56 facilities) and kits available. Experts criticized that enough tests were not conducted in a country that has a population of over 160 million Dhaka Tribune and news.yahoo.com.30 March 2020.

Suicide

Worldwide, the coronavirus-2019 disease (COVID-19) has seen a sharp rise in both incidence and fatality. The COVID-19 pandemic has a significant impact on social and economic factors in addition to health issues. Meanwhile, it is arguable that developing and less developed nations are

going through more severe crises than industrialized nations, with several small and medium-sized firms being disrupted and even going out of business (Lobo *et al.*, 2020) Consequently, some people have highly fragile mental health (Xin *et al.*, 2020). According to Gupta *et al.* (2020), some of the psychological repercussions of COVID-19 misinformation in India, Bangladesh's neighbor, include self-harm. Additionally, a lack of precise information may have negative effects on mental health, such as sadness, anxiety, panic attacks, and traumatic stress (Jesline *et al.*, 2021).

In Bangladesh, there have been at least eight COVID-19 suicide instances (seven reported here and one before by Mamun *et al.*, 2020) and all but one was brought on by economic problems.

Table 1:	Distribution	of	COVID-19	cases	and	fatalities,
	Bangladesh,	8 M	arch 2020-27	Februa	ry 202	22

	Cumulative		
Division	Cases	Death	CFR (%)
Dhaka	1180029	12744	1.08
Chattogram	289558	5851	2.02
Khulna	128476	3711	2.89
Rajshahi	118560	2137	1.80
Rangpur	63960	1413	2.21
Sylhet	66156	1322	2.00
Barisal	52497	976	1.86
Mymenshing	43444	877	2.02
National	1942680	29031	1.49

Source: WHO (2020b)

 Table 2: Tests per 1,000 inhabitants reported in South Asian nations, ranked by country

Rank	Country	Test per 1,000	Percent
1	Maldives	69.4	6.9
2	Bhutan	30.3	3.0
3	India	4.9	0.5
4	Pakistan	4.8	0.5
5	Nepal	4.6	0.5
6	Sri Lanka	4.2	0.4
7	Bangladesh	3.4	0.3
8	Afghanistan	1.6	0.2

Source: Julgarnine et al. (2020)

 Table 3: Household faced food deficiency compared to demand (in %)

	Before lockdown	After lockdown
Beneficiary	27.1	87.5
Semi control	20.5	85.3
Pure control	19.7	84.3

Source: (Dhaka: HDRC and UNDP)

Additionally, families in Bangladesh do not want the passing of a loved one to be reported as a suicide news story in order to avoid the social and criminal difficulties linked to suicide, hence it is possible that the actual suicide incidence is higher than the reported cases (Mamun *et al.*, 2020). The results for Bangladesh, a developing nation, however, reveal the severe psychological effects on underprivileged and poor individuals.

Deficiency of Food

One FGD participant from Chattagram said that "We are passing a very difficult time because our business is closed. We have to cook half a kg of rice instead of one kg". Another participant from Rangpur said, "All kinds of food are available in the market, but we could not afford to buy because the prices are much higher than before and we have less money".

Food expenditures have decreased for declining purchasing ability. In rural homes and urban households, respectively, the average food expenditure was determined to have reduced by 22 and 28% in April 2020. Price increases for vegetables, eggs, fish, and broiler meat have been caused by supply constraints during the lockdown.

Table 3 shows that among the beneficiary, semi-control, and pure control groups, 27.1, 20.5, and 19.7% of surveyed households faced food deficiency compared to demand before the COVID-19 lockdown respectively. While these increased almost four-fold during the lockdown (p<0.00001) 87.5% of beneficiary numbers households, 85.3% of the semi-control households and 84.3% of the pure control households faced food deficiency compared to demand.

Economic Impact

Bangladesh is at a higher risk due to its dense population, poor infrastructure, and insufficient healthcare systems to give the necessary support (Ma et al., 2020). Due to its high population density (170 million people in 147,000 sq. km.), inadequate healthcare systems, and a weak economy, Bangladesh is one of the most vulnerable nations. Bangladesh's economy has been expanding successfully in recent years, with a GDP growth rate of more than 7.5%, although 20% of the population is still living in poverty (Masud et al., 2020). Nevertheless, Bangladesh's economy has already begun to suffer greatly as a result of COVID-19's rapid spread. The outbreak of COVID-19 is already begun to impact several economic sectors. The pandemic's immediate effect is the temporary closing of companies and businesses, which results in decreased production in the affected country (Barua, 2020). Due to the economic halt in place, millions of people are at unprecedented risk of losing jobs in several economic sectors such as readymade garments, dairy, poultry, transportation, tourism, etc. The readymade garments industry has already been projected to lose USD 1.6 billion due to the cancellations of orders (Kabir et al., 2021).

Due to the COVID-19 pandemic, the world economy will experience a coronavirus recession in 2020. (Schwartz, 2020). The G20 economies shrank by 3.4% year over year in the first three months of 2020, while global stock markets had their worst year since 1987. Weiss et al. (2020); OECD (2021) the international labor organization found that between April and June 2020, 400 million full-time jobs were lost internationally and worker income declined by 10% globally in the first nine months of 2020, amounting to a loss of more than US\$3.5 trillion. (MCkeever, 2020). A coronavirus outbreak situation has contributed to the economic decline of nations like the G-7, which together account for 65% of the world's manufacturing units. Additionally, there has been a 60% decline in global demand and supply and this outbreak has negatively impacted 41% of global exports (Baldwin and Di Mauro, 2020).

It is evident from Bangladesh's macroeconomic indicators' current trends that the country has successfully weathered the negative economic effects of COVID-19.

The country's industrial production was considerably interrupted during the initial wave of the epidemic from April to May 2020, but from July 2020 it started to drastically change.

The economy is showing signs of improvement and it is clear from those signs that by putting economic recovery policies into action quickly and effectively, the second and third waves of the COVID-19 pandemic's economic impact have been successfully mitigated by the government.

Impact on Agriculture

In terms of supply chain disruptions and agricultural productivity, the COVID-19 pandemic's effects can be seen in the agriculture industry. The announcement of lockdown multiple times to slow the disease's quick spread caused restriction emphasizes the mobility of agricultural products and communities, particularly laborers who typically must travel from one location to another in order to work and earn a living. Many laborers from various regions of the nation must travel to the haor region of Bangladesh to harvest the boro rice before the flash flood. However, due to social exclusion and restricted mobility, the workers were unable to move. In 2020, boro farmers lost 7% of their projected production, which nationally equates to BDT 3,687 crore.

Both the supply and demand for food are significantly impacted by COVID-2019 in agriculture. Food security is also at risk because of these two factors, according to. The COVID-19 epidemic has had a significant impact on flower production and sales in entire Bangladesh with an estimated loss of Tk. 250 cr. and at least 20,000 farmers working in floriculture in Bangladesh are to encounter imminent suffering from unemployment (Roy *et al.*, 2020).

Impact on Ready-Made Garments

The revenue from RMG exports decreased from the previous year by 18.12% in the fiscal year 2019-2020. Vietnam outpaced Bangladesh to surpass it and become the world's second-largest exporter of RMGs, even though RMG shipments fell by about 3% September 06, 2020, daily star.

Due to difficulties locating raw materials and canceled orders, the COVID-19 epidemic has had a significant influence on the garment industry's supply chain and demand. More than \$2.6 billion worth of orders in Bangladesh's garment industry have reportedly been canceled and more are on the way, according to the nation's commerce minister.

Impact on Poverty Rate

According to figures from the Bangladesh Bureau of Statistics (BBS), over 34 million people in Bangladesh, or 20.5% of the population, are considered to be poor. If the income threshold for the poverty line were lifted by 1.25%, this number would increase by 36 million people.

Because of the pandemic, many of them risk falling into a cycle of poverty (Chakrobarty *et al.*, 2020).

Impact on the Stock Market

Here, Table 4 shows, December 2019' s month-end total transactions on the Dhaka stock market fell due to corona virus pandemic in March 2020 and once more declined on June's final day of trading. Compared to March and December, the total value of 8 trades is larger in June, while the overall volume declines after December. Similar market reactions also affected the Chittagong stock exchange, where total trade dropped from December to March and from June to 1648.

Impact on the Global Economy

All major economies, including the G7 nations, which together account for 65% of global

manufacturing, 60% of Global Demand and supply (GDP), and 41% of global exports, have been severely impacted by this pandemic and more nations will follow these (Baldwin and Di Mauro, 2020) is projected to see a 2.2% contraction in the global economy.

These consequences are anticipated to be more noticeable in significant G20 economies including Germany, Italy, the United Kingdom, and the US, all of which are significant customers for Bangladesh's most important export: Ready-made clothing (UEI, 2020).

Table 5 shows that overall world export and import decreased by 18.3 and 15.8% respectively. The highest export decreased by 30.8% in the USA and the lowest by 4.4% in CIS. In the case of imports, the highest decreased occur 27.4% in Latin America and the Caribbean and the lowest at 2.5% in Africa and Middle East.

Figure 3 shows the majority of the \$8 trillion in global fiscal support comes from the G20 advanced and emerging market economies. The average share of GDP that the G20 countries' total revenues and expenditures make up is 4.5%.

Impact on Remittance

The remittance of expatriates has already been impacted by the economic closure in these countries, with a decreasing trend in the first quarter. Due to the reliance on remittances, many of the migrants have already lost their jobs, which would further hurt the rural economy of the nation.

Before the epidemic, Bangladesh had roughly 10 million migrant workers in other countries who used to provide a significant amount of foreign exchange money to the country. Remittances began to decline in March with the adoption of comprehensive lockdowns in the major host countries and the country received fewer remittances in 2020 than in the same month in 2019. On March 8, 2020, Bangladesh declared the occurrence of COVID-19 where returns migrant workers were among the first to be blamed for bringing the virus into the nation. The last wave of migrants who were able to fly out before travel restrictions had only 38,000 employees, compared to the average monthly influx of 50,000-60,000.

Impact on Rural Economy

Reduced demand in the poultry, dairy, and fishing industries has resulted in a sharp decline in prices in those industries. Apparel workers and urban day laborers lost their jobs as a result of manufacturing closures. As a result, many people who had no other means of support moved from cities to villages, placing the rural economy in a precarious position (Julqarnine *et al.*, 2020).

Figure 5 shows that due to the bad effect of COVID-19, The price of eggs plummeted by 45%, that of milk by about 35%, that of dry fish by 40%, and that of vegetables by a similar amount.

Initiatives the Bangladeshi Government has Taken During the Pandemic of COVID-19

The Bangladeshi government had offered a stimulus package worth over USD 589 million for financial assistance to rural farmers for increasing agricultural output. Numerous initiatives, such as stimulus packages and over USD 1060 million, have been earmarked for increasing crop production despite the COVID-19 outbreak in order to meet the nation's food requirements.

In addition to this, \$15 million is needed for farmer rehabilitation, for machinery and seeds USD 23.5 million, and for spending USD 4.1 million for Australian agriculture seeds and fertilizers, and USD 4.25 million for irrigation were allocated. Also, 180 combined harvesters and 137 reapers had been allocated in haor regions to mitigate the labor problem of harvesting boro crops (Islam *et al.*, 2020b).

 Table 4: Total trade, value, and volume of Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE) during December 2019 and March and June 2020

	DSE			CSE		
Month end data	Dec'19	Mar'20	Jun'20	Dec'19	Mar'20	Jun'20
Total trade	144316.000	26949.000	24223.000	10300	2301	1648
Total value	5216.489	3481.387	5557.152	275	1120644964	2261654554
Total volume	242701500.000	53809765.000	53408903.000	9252000	3661203	8615602

Source: Islam et al. (2020c)

 Table 5: Change in the volume of global trade in goods, December 2019 May 2020 (World and selected groups and countries)

	Exports	Imports
World	-18.3	-15.8
Advanced economies	-22.7	-15.8
United States	-30.8	-15.8
Japan	-22.1	-4.4
Eurozone	-22.0	-16.6
Emerging economies	-12.8	-15.8
China	-7.7	-13.8
Emerging Asian countries (excluding China)	-13.1	-17.2
Eastern Europe and Commonwealth of Independent States (CIS)	-4.4	-13.4
Latin America and the Caribbean	-26.1	-27.4
Africa and the Middle East	-13.9	-2.5

Source: Cepal (2020)

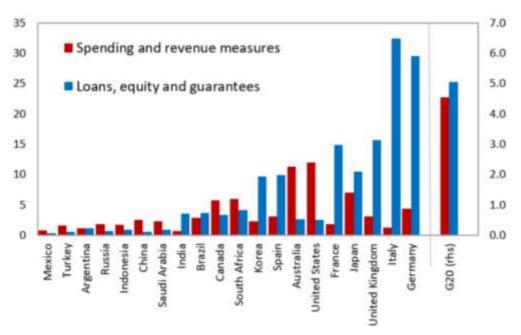


Fig. 3: Monetary response of the G20 to the COVID-19 pandemic

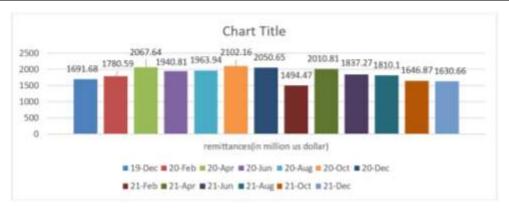


Fig. 4: The influx of remittances (in million USD), Source: Bangladesh Bank

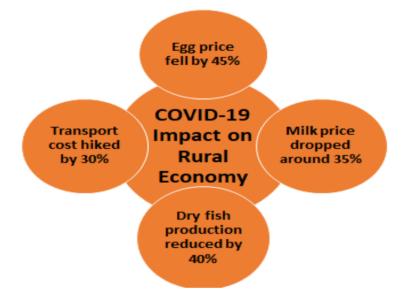


Fig. 5: COVID-19 impact on the rural economy; source: Julqarnine et al. (2020)

Above Fig. 4 illustrates the fluctuations of remittances from December 2019 to December 2021 in Bangladesh. In the month of October 2020, 2102.16 million USD remittances earned which was the highest and 1494.47 million USD in February 2021 during COVID-19 period.

The government had already pledged a sum of almost USD 12 million for special honoraria for the medical community. About USD 88.25 million will be spent on life and health insurance. Additionally, the government introduced a website, www.corona.gov.bd, to provide details on the services offered. A particular initiative to offer video lessons to pupils in classes six through ten had also taken by the government of Bangladesh. Through the "my school at my home" program, students can see and learn subject-specific video courses that are broadcast on Sangsad TV (Jenkins, 2020).

Impact on GDP

Bangladesh's real GDP growth is expected to slow to 2.0% in FY 2019-20 as a result of declining exports of

ready-to-wear apparel, slower growth in private investment, and broader disruptions brought on by COVID-19 (Bagchi *et al.*, 2020).

Figure 6 implies real GDP growth rate was about 7.00% in 2018 and 2019. But it decreased in 2019 by a small amount. It was projected a great decrease in 2020 because of the devastating impact of the COVID-19 pandemic. The real GDP growth rate started to increase in the mid of 2020 and reached about more than 6% in 2022.

For a total of 27 billion takas, the government has approved two additional COVID-19 stimulus programs to aid low-income neighborhoods and small and medium-sized businesses. There were 23 COVID-19 stimulus programs in total, costing a total of 1.24 trillion takas, or 4.44% of GDP, in the country (Xin *et al.*, 2020).

Table 6 shows, the government of Bangladesh took five various initiatives to aid those who were harmed by the deadly COVID-19 pandemic, either directly or indirectly.

They are useful for maintaining the economy. The entrepreneur gets loan facilities by paying a small amount of interest.

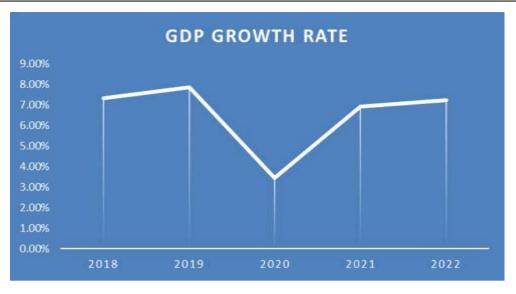


Fig. 6: Real GDP growth (%), source: International monetary fund

Package 1	Facilities for working capital of approximately USD 3,529 million for the service sector and the impacted industries This
	the loan will have an interest rate of 9%
	The borrower and government each pay half of the loan's interest. The government pays the other half
Package 2	Offers advantages for working capital to small and medium-sized businesses
	The creation of a loan facility in the amount of about USD 2,353 million will be done in order to supply short-term
	operating capital through the banking sector. The rate of interest of 9% will apply to this loan. Small and medium-sized
	businesses will pay back 4% of the loan, while the government will pay the remaining 5% to the relevant bank
Package 3	Extending Bangladesh bank's Export Development Fund (EDF) initiative's benefits: The block-to-1 block LC will
	expand the EDF's current size from USD 3.5 billion to USD 5 billion in order to increase raw material imports. The
	EDF's existing interest rate, which is currently The London Inter-Bank Offered Rate (LIBOR) + 1.5% (or 2.73%),
	will be lowered to 2%
Package 4	Pre-shipment credit refinance scheme, a new loan facility with an estimated value of USD 589 million, will be
	introduced by Bangladesh bank. This loan will have an interest rate of 7%
Package 5	The prime minister has previously proposed an emergency stimulus package worth roughly USD 589 million to cover
C	salaries and benefits for workers and staff members of sectors focused on exports

Source: Islam et al. (2020a)

Vaccination

Surokha, the application platform for the COVID-19 vaccine, has more than 96.5 million users registered. Nonetheless, 83 529 389 people finished their two-dose plan, while 1 22 689 831 people received their first dosage. The population is evenly split between males and females, at 50% each. A COVID-19 vaccination has been administered to roughly 72.0 and 49.0% of the nation's total population, respectively.

Conclusion

Catastrophic effects of the COVID-19 pandemic are observed in the socioeconomic circumstances, including income, education, health food habit, etc. of the people. The coronavirus testing rate is (0.34%) which is very low, Bangladesh has a 79.24% death rate for men and a 20.76% death rate for women. household faces a 29% decline in income. These effects are long-lasting and people will be regretful in the long run of life. It has already been estimated that the ready-to-wear industry will lose USD 1.6 billion and that GDP growth will decelerate to 2.0%, RMG exports declined by 18.12%, G20 economies fell by 3.4% and remittances are declined badly. So, it is believed that if these circumstances persist, there may eventually be a recession. Bangladesh, like other emerging nations, will face significant challenges due to its reliance on foreign aid, remittance, and exporting finished goods.

Bangladesh faces several restrictions in controlling the virus's spread due to its lower-middle-income status. The nation may be able to resist the deadly virus if appropriate and timely steps are adopted with good cooperation. The administration of Bangladesh has already taken initiatives to cope with the pandemic situation. There were 23 COVID-19 stimulus programs in total, costing a total of 1.24 trillion takas, or 4.44% of GDP, in the country.

Approximately USD 3, 529 million for the affected industries and service sector, USD 589 million would be used to cover employee salaries and benefits in exportoriented industries were allocated as a package to tackle the serious effect of a pandemic. Though the government has already taken endeavors to combat these pandemic conditions by offering the entrepreneur various promotional packages, the issue recently hasn't changed that much due to the slow motion of economic activities during the COVID-19 pandemic.

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Author's Contributions

Mahmuda Khatun: Prepare the study concept, drafted, completed, rearranged and developed for publication.

Mashrat Jahan: Critically drafted and reviewed papers for publication.

Sumaya Siddika Kanta: Arrange information, collects papers and revised the manuscript.

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