

# BANGLADESH JOURNAL OF POLITICAL ECONOMY

VOLUME 37 NUMBER 2  
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## Editor's Note

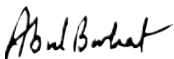
The Bangladesh Journal of Political Economy (BJPE) accommodates only the papers submitted and selected for publication. The articles are critically reviewed by internal and external reviewers with endurance and finally concurred by the Editorial Board for publication. This comprehensive volume combines some research articles presented at the 21<sup>st</sup> Biennial Conference of Bangladesh Economic Association-2021 titled "Impact of COVID-19 Pandemic and Human Development".

Apart from the loss of human life, the COVID-19 pandemic has caused unprecedented changes in organised human society's economic, social and political dimensions. Historians might look back at the Corona Virus pandemic of 2020 as a defining moment of the twenty-second century. A great reset is imminent to overcome the disastrous impact of the Covid-19 pandemic. Hence, we need enlightened persons and institutions who will lead the reset to build a decent society and mould the ideas to transform human deprivation into a humane development.

This Journal will help to monitor the current global situation and practice from a broad-based interdisciplinary perspective. Besides, it will keep arduous and interested writers in touch with the cutting-edge issues of human development, thinking action, and sound strategies. More importantly, we are sure that the papers are thought-provoking, written with the best endeavour by a galaxy of scholars and young, dynamic and masterly authors. This Journal, as expected, will be an essential resource for social science faculties and research institutions, development agencies, policymakers and analysts, graduate teachers, and researchers intended to contribute toward a 'Decent Society.'

I hope this BJPE Issue will help us share knowledge about pandemic-mediated development, dispelling some of the prevalent misinformation and ideas and sensitising readers to the threat of infectious diseases. We owe an enormous collective debt to the courageous, conscientious health workers and people from all walks of life worldwide at the forefront of the battle to contain COVID-19.

The credible authors and the learned reviewers have toiled much to raise the standard of this volume. Members of the Editorial Board reviewed some of the manuscripts and gave valuable suggestions to propel this Journal. We express our heartfelt gratitude to all of them.



Abul Barkat, PhD  
Editor, Bangladesh Journal of Political Economy;  
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## Fiscal Stimulus in South Asia: Implications for resilience and sustainable development during and after COVID-19\*

Azreen Karim\*\*  
Andrew DeWit\*\*\*  
Satoka Sugiyama\*\*\*\*  
Rajib Shaw\*\*\*\*\*

### Abstract

*The world continues to be gripped by COVID-19, though the pandemic's impact varies across countries and regions. The South Asian case is illustrative. The region is marked by inherent socioeconomic and other vulnerabilities, including high population density, relatively poor health care, and limited water sanitation facilities. South Asian countries also evince varied levels of damage from the pandemic. This paper examines the region's circumstances as of November 2020, using macroeconomic data to explore varied pandemic impacts and fiscal policy responses. We also discuss the COVID-19 fund formed at the South-Asian regional level with contributions from all eight South Asian countries. Our analysis includes each country's external and internal share of fiscal stimulus, and the implications for sustainable development goals (SDGs). In an argument for integrating resilience and development frameworks, the paper analyses Japan's example of national resilience planning and related sustainable development frameworks. Our research indicates that a sustainable recovery is advantaged by fiscal stimulus that can be linked to extant developmental frameworks.*

**Keywords** COVID-19 · fiscal stimulus · South Asia · resilience · sustainable development

\* This article is an extended and updated version of a chapter in the book titled "Pandemic Risk, Response, and Resilience: COVID-19 Responses in Cities Around the World" published by Elsevier, pages 13-28, 2022.

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## 1. Introduction

The South Asian region encompasses Afghanistan, Bangladesh, Bhutan, India, Maldives, Pakistan and Sri Lanka, and represents one-quarter of the global population. The region faces several critical issues in fighting the COVID-19 pandemic as well as building a viable recovery. Ten months have passed since South Asia reported its first COVID-19 case, in Nepal on January 23rd, 2020. At that time, the global community was already grappling with the accelerating impacts of climate change. Thus the Covid-19 pandemic has created a truly unprecedented and multifaceted crisis. The lockdown policy prescribed by the World Health Organization (WHO) revealed dramatically varied socio-economic threats among the developed and developing nations. These differences are in part due to geography, but even more so because of divergent welfare regimes, disaster vulnerability and resilience among countries and territories. In the current climate of extreme uncertainty, the global community is yet to engage with the targets for the Sustainable Development Goals (SDGs). Yet it is imperative that the present crisis be addressed in tandem with promoting the SDGs. Failure to bolster long-term sustainability risks worsening inequality, higher opportunity costs, cascading hazards, and further retreat from planetary thinking and globalism (e.g. DeWit et al, 2020).

Recent research highlights examples of fiscal stimulus packages that address long-term resilience and sustainability in tandem with immediate measures to protect public health and the economy. But this approach is not yet generalized. Virtually all pandemic-affected countries have announced fiscal stimulus packages in a context of quite limited discussion of how to simultaneously implement disaster risk reduction (DRR), national resilience and sustainable development<sup>1</sup>. It is particularly important that the developing countries articulate and implement appropriate short- to medium- and longer- term strategies towards the SDG targets lest alleviation of poverty and other goals be forfeit (e.g. Karim, 2018).

This paper thus adds to the analysis of how to undertake Covid-19 fiscal stimulus that addresses DRR, resilience and sustainable development in the global South, notably South Asia. South Asia is one of the most densely populated regions in the world, and designing fiscal interventions to protect lives and livelihoods in addition to achieving the SDGs is a huge challenge. Even without a pandemic, South Asia confronts more disaster threats, climate-induced disaster displacement, deteriorating ecosystems, and geo-political tensions than other developing regions. We explore the region's actions and then turn to the Japanese example. Japan's population density and disaster risks are similar to South Asia. And it has embedded its Covid-19 countermeasures in a larger paradigm of all-hazard, collaborative industrial policy.

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<sup>1</sup> See Karim and Noy (2020).

## 2. COVID-19 overview in South Asia

### 2.1 Current status of COVID-19

South Asia encompasses roughly 5.2 million km<sup>2</sup> (2.0 million square miles), which is 11.71% of the Asian continent or 3.5% of the world's land surface area. The aggregate population of South Asia is approximately 1.89 billion, or about one quarter of the global total. South Asia thus combines a limited territorial area with a large population, make it the world's most densely populated region. Like other populous regions, South Asia has been affected by the COVID-19 pandemic. As of October 12, 2020, global confirmed infections total about 37.4 million with just under 1.08 million deaths. Among the South Asian countries, India has reported the highest COVID-19 mortality, followed by Pakistan, Bangladesh and Afghanistan respectively. In terms of percentages, current data on death rates are higher in Afghanistan (3.65%), followed by Pakistan (2.13%), India (1.87%), and Bangladesh (1.32%). Nepal, Sri Lanka and Bhutan have reported comparatively fewer deaths, with Bhutan as yet reporting no fatalities. As for COVID-19 recoveries, India remains on top followed by Pakistan, Bangladesh, Afghanistan and Nepal respectively.

### 2.2 Migration and Remittance Flows

Our primary objective in this paper is to look at South Asian fiscal stimulus packages and their impacts on DRR, national resilience and sustainable development. It is thus important first to assess the economic damage. One important measure is migratory remittances, which reached USD 714 billion in 2019, from roughly 1 billion workers overseas or displaced within domestic economies. At least 60 low- and middle-income countries rely on remittances for more than 5% of GDP, and the remittance income flows exceed foreign direct investment and official development assistance. These data show that countries heavily reliant on globalization are among the hardest-hit economies.

*Table 1: Projections of Remittance Flows*

Region	2009	2016	2017	2018	2019 (E)	2020 (F)	2021 (F)
East Asia And Pacific	-4.8	-0.5	5.1	6.8	2.6	-13	7.5
Europe And Central Asia	-14.7	-0.3	20	10.9	6.6	-27.5	5
Latin America And The Caribbean	-11.3	7.4	11	9.9	7.4	-19.3	5.9
Middle-East And North Africa	-6.2	-1.2	12.1	1.4	2.6	-19.6	1.6
<b>South Asia</b>	<b>4.5</b>	<b>-5.9</b>	<b>6.2</b>	<b>12.1</b>	<b>6.1</b>	<b>-22.1</b>	<b>5.8</b>
Sub-Saharan Africa	-0.2	-8.3	9.3	13.7	-0.5	-23.1	4
World	-5.1	-0.9	7.7	8	2.8	-19.9	5.2

**Source:** Ratha et al. (2020) based on the World Bank's projections.

Table 1 is derived from the World Bank's regional projections. The table displays migratory remittance flows from 2009-2021, with the estimates for 2020 (the initial year of Covid-19) being most striking. Ratha et al. (2020) use these data to highlight South Asian vulnerability. Their comparison indicates that South Asia's migratory remittance flows are likely to decline by 22.1% compared to the global average drop of 19.9%. We see that Europe and Central Asia (-27.5%) are likely to be hit harder followed by Sub-Saharan Africa (-23.1%). The Latin American and the Middle Eastern countries are roughly consistent with the global average. By contrast, East Asia and the Pacific nations appear likely to incur the least damage. Even so, all regions experience greater damage from Covid-19 than from the 2009 Lehman Shock and recession. To be sure, the World Bank forecast that 2021 will see a general recovery, with a global average doubling of remittance growth comparing 2019's 2.8% with the projected increase of 5.2% in 2021. But the latter number is dependent on an optimistic assessment of the pandemic per se in addition to a robust return of global economic activity. Seen from the perspective of October 2020, there seem limited grounds for such optimism. There is little coordination among the major economies, and the United States is notably lacking in fiscal stimulus.

### **2.3 SAARC COVID-19 Fund and Mutual Collaboration**

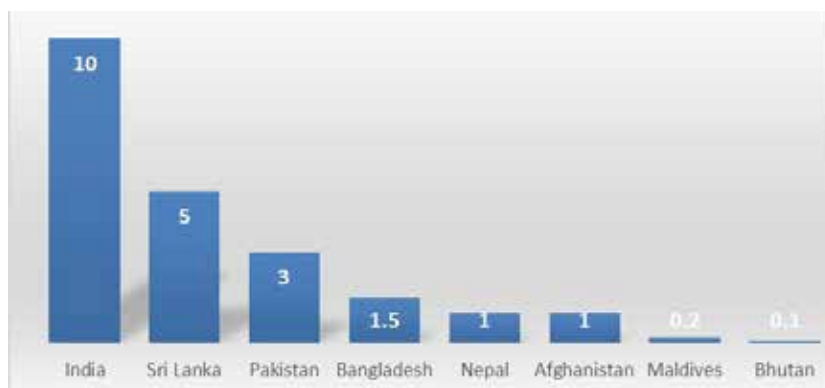
In the absence of coordinated global action, collaborative COVID-19 initiatives similar to fiscal bailouts are evident across various regional economic blocs. South Asia is no exception. On March 15, 2020, during a video conference of the SAARC<sup>2</sup> Heads of State, Indian Prime Minister Narendra Modi proposed a COVID-19 Emergency Fund. This emergency fund was primarily set up as part of the regional response to the global pandemic. Figure 1 displays each SAARC nation's contribution to the COVID-19 Emergency Fund.

As of 10 April 2020, the emergency fund had accumulated a total of USD 21.8 million in contributions from the eight-member countries. India's donation of USD 10 million was the initial investment. The Indian announcement was followed by the Maldives with a contribution of USD 200,000 and Bhutan contributing USD 100,000. On March 22, Bangladesh announced it would contribute USD 1.5 million, followed by Nepal and Afghanistan each with a voluntary contribution of USD 1 million. Subsequently, Sri Lanka and Pakistan contributed USD 5 million and USD 3 million respectively.

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<sup>2</sup> The South Asian Association for Regional Cooperation (SAARC) is the regional intergovernmental organization and geopolitical union of states in South Asia. Its member states are Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka.

Figure 1: Contribution to SAARC COVID-19 emergency fund (millions USD)



Source: <http://covid19-sdmc.org/covid19-emergency-fund>

### 3. Fiscal stimulus in South Asia: facts and figures

#### 3.1 State of the economy: macroeconomic balance

Table 2 demonstrates the macroeconomic indicators of the South Asian countries including GDP growth, current account balance (% of GDP) and government net lending/borrowing (% of GDP) for pre-COVID, COVID and post-COVID scenario. We take 2019 as our pre-COVID year with a forecast scenario of the prescribed macroeconomic indicators for 2020 (COVID year) and 2021 (post-COVID year).

Table 2: Macro Economic Balance across South Asia

Country	GDP growth (%) <sup>1</sup>			Current account balance (% of GDP) <sup>2</sup>			General government net lending/borrowing (% of GDP) <sup>2</sup>		
	2019	2020 (f)	2021 (f)	2019	2020 (f)	2021 (f)	2019	2020 (f)	2021 (f)
Afghanistan	3	-5	1.5	8.591	4.898	5.753	-0.983	-4	-2.007
Bangladesh	8.2	5.2	6.8	-2.7	-2.167	-0.816	-5.247	-6.425	-5.977
Bhutan	4.4	2.4	1.7	-23.073	-21.254	-20.167	0.642	-5.529	-5.858
India	4.2	-9	8	-1.126	-0.592	-1.422	-7.442	-7.422	-7.301
Maldives	5.9	-20.5	10.5	-26.131	-23.135	-11.844	-5.58	-11.987	-6.427
Nepal	7	2.3	1.5	-7.718	-6.451	-6.156	-4.561	-5.975	-4.995
Pakistan	1.9	-0.4	2	-4.955	-1.706	-2.359	-8.848	-9.197	-6.469
Sri Lanka	2.3	-5.5	4.1	-2.152	-3.631	-2.938	-6.766	-9.445	-8.289

Source: Asian Development Outlook 2020 Update (September 2020)<sup>1</sup>; World Economic Outlook (April 2020).<sup>2</sup>

Projections indicate that government borrowings of all the eight countries of South Asia are likely to make moderate to drastic improvements in the post-COVID scenario compared to the COVID year. Among them, Sri Lanka, Bangladesh and Nepal are expected to make a moderate level of improvement (roughly 1%) while Maldives, Pakistan and Afghanistan are likely to achieve drastic improvement (2-5%) in their public sector debt levels. However, India and Bhutan are expected to make mild progress in the improvement in the government lending scenario. The pre-COVID (2019) year also reflects negative numbers with the only exception of Bhutan which further translates hard economic hit by the pandemic due to stringency in economic lockdown.

We next analyze the current account balance (as % of GDP) of the South Asian nations for all three COVID-related years i.e. 2019, 2020 and 2021 respectively. The current account balance seems to improve (in the negative domain) in the post-COVID (2021) year for all South Asian countries with few exceptions. The region's bigger economies, particularly India and Pakistan, are expected to see deterioration in their current account balances in 2021. However, Pakistan seems to be better off compared to the pre-COVID (2019) year while India might return almost to its pre-COVID equilibrium in the post-COVID economic era. The only positive case in this category holds for the landlocked country of Afghanistan with a 1% point projected increase in the post-COVID year (Table 2).

Finally, using Table 2, we tend to analyze the overall economic growth (measured in terms of % change in Gross Domestic Product, GDP) of all the South Asian countries in 2019, 2020 and 2021 respectively. Despite a drastic reduction in economic growth rates due to the pandemic in 2020 (compared to pre-COVID year), countries such as Bangladesh, Nepal and Bhutan managed to avoid negative growth in 2020. Maldives is found to be the hardest hit due to COVID-19 in terms of economic growth (-20.5%) that is followed by India (-9%), Sri Lanka (-5.5%) and Afghanistan (-5%) consecutively. However, these countries are projected to achieve positive growth rates in the post-COVID era with India, the Maldives and Sri Lanka have been forecasted to double their growth rate figure compared to the pre-COVID year. Bangladesh is projected to achieve an economic growth rate of 6.8% in 2021, but this is far behind its pre-COVID performance of 8.2% in 2019. The primary drivers are likely to be the uncertain fortunes of migrant workers (impacting remittances) and the severe impacts on global supply and value chains. Nepal and Bhutan are expected to grow even less in the post-COVID scenario despite avoiding negative growth. The reasons behind this projection might be cross-border restrictions in the tourism sector and the impact on regional trade.

### **3.2 Fiscal Stimulus: Internal and External Assistance**

Of critical importance for post-COVID recovery in South Asian countries is the amount of fiscal assistance received, both domestic and international. Like most affected countries, South Asian nations undertook fiscal policy to mitigate the

public health trauma due to the COVID-19 pandemic and revive their economies in the midst of negative effects from the global lockdown policy. Table 3 exhibits the amount of fiscal stimulus provided by domestic and international counterparts in the South Asian countries.

*Table 3: COVID-19 fiscal stimulus in South Asia*

Country	Total Amount (million USD) <sup>a</sup>	Government Stimulus (million USD)	International Assistance (million USD)	As % of GDP (2019)	Package Per Capita(USD)
Afghanistan	1089	101	987	5.70%	28.62
Bangladesh	15717	12078	3639	5.19%	96.39
Bhutan	494	448	46	20.20%	647.74
India	370365	364812	5553	12.88%	271.04
Maldives	475	162	313	8.30%	896.26
Nepal	1688	526	1162	5.51%	59.01
Pakistan	15494	13104	2389	5.56%	71.54
Sri Lanka	2358	1034	1324	2.80%	108.18

**Source:** ADB COVID-19 Policy database<sup>b</sup>

**Note:** <sup>a</sup> Total assistance includes the summation of government stimulus and international assistance received by respective countries (excluding international assistance provided by other countries). Government stimulus includes liquidity support, credit creation, government support to income/revenue, direct long-term lending, central bank financing government and a budget reallocation. International assistance includes swaps and clearing arrangements (borrower), assistance from ADB, international loans and grants and others (World Bank, IMF, USAID, AIIB, etc.). Package per capita is calculated through dividing the total package by the population of the respective countries.

<sup>b</sup> Data is updated as of Sep 21, 2020 in ADB COVID-19 policy database. For majority of the South Asian countries, stimulus packages announcement started from March/April 2020.

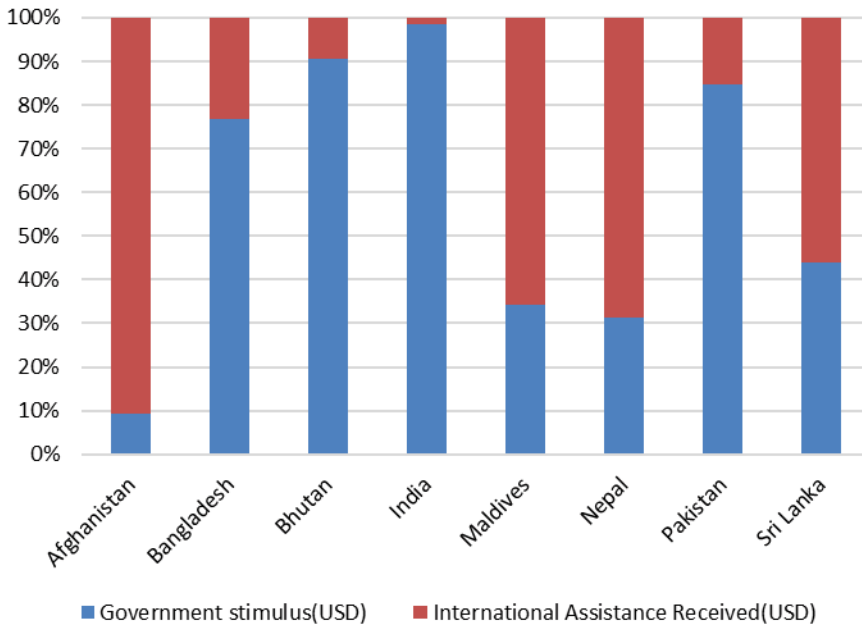
Our data in Table 3 are derived from the Asian Development Bank COVID-19 Policy database, updated to September 21. The table reveals that all eight countries of the South Asian region have received quite moderate levels of fiscal stimulus to mitigate the economic risks imposed by the pandemic. Among them, India received the highest amount of fiscal stimulus (USD 370 billion), followed by Bangladesh (USD 15.718 billion USD), Pakistan (15.494 billion USD), and Sri Lanka (2.359 billion USD). Note that the table's numbers for fiscal package totals are the sum of government stimulus plus international assistance from development banks, donor agencies, and fiscal partners. As a percentage share of GDP, this total fiscal stimulus is 12.88% for India, 8.30% for the Maldives, 20.20% for Bhutan, 5.19% for Bangladesh, 5.56% for Pakistan, 5.70% for Afghanistan, 5.51% for Nepal and 2.80% for Sri Lanka.



Next, we assess whether there is much weight given to DRR, resilience and sustainable development. We identify two indicators to analyze this decision-making process of the lending agencies i.e. announcement and receipt of both the government stimulus and international assistance from the development banks and donor agencies. They are: i) the size of the total assistance as a percentage of GDP; and ii) the size of the stimulus package per capita. Our a-priori assumption is the higher the amount of financial assistance (measured as % of GDP), the greater the benefits via increased liquidity. Again, the fiscal amount should be proportionate to the size of the population. Therefore, our per capita fiscal package indicates whether the amount is adequate to revive economic activity after the total closure policy of the national governments. It is important to note here that although Bhutan received the highest per capita amount in this category, it might not indicate the adequacy of fiscal boosting in the economy. The number could perhaps reflect the lower population size. Moreover, targeting the right beneficiaries and governance issues (including administrative guidelines) are crucial to maximize the benefit of these fiscal interventions in the South Asian region.

Figure 2 demonstrates the proportion of government stimulus and international assistance received by each of the eight South Asian countries. The figure highlights Afghanistan’s extreme dependence on overseas assistance.

Figure 2: External and internal share of fiscal stimulus in South Asia



Source: ADB COVID-19 Policy database

In this perspective, it is perhaps also important to highlight the issue of public debt management; both internal and external. We put forth two cautionary notes in this context: i) fiscal stimulus which has been laid down from internal sources could tend to generate similar impacts as of fiscal policy expansions i.e., taxation and/or public expenditure. The tax structure and expenditure pattern could vary substantially among the South Asian countries implying diversified impacts in the recovery stages. In many cases, where the tax returns are extremely minimal (with significantly lower during the pandemic), the internal resources mobilization were also found to be stagnant as well. This undoubtedly indicates to the need of securing bigger foreign investments contributing to larger external debts to be efficiently managed in the post COVID era; ii) in cases of external debt management; in immediate post pandemic recovery stages, the completion of mega projects turned out to be quite challenging in the absence of large foreign investments to generate external resources and curtailment of costs. In some countries, the level of foreign reserves was already in a critical stage before the pandemic (e.g., Sri Lanka), making it devastating and crippling down the economy after the pandemic with aggravating crisis scenario due to the Russia-Ukraine war. Therefore, the issue of external debt is extremely important in the context of multi-crisis management at various stages. The channeling of the stimuluses in the fiscal context could perhaps be a balancing tool to mitigate some internal pressures arising from these crises and ensuring a sustainable equilibrium in the growth recovery process.

### 3.3 Monetary Policy Measures

This paper's main objective is to analyze the prospect of fiscal boosting towards DRR, resilience and sustainable development in the South Asian region. But the analysis also requires a brief discussion of complementary monetary policy initiatives. Table 4 outlines these measures undertaken by South Asian governments to cope with the COVID-19 pandemic.

*Table 4: Monetary policy measures*

Country	Interest rate cut	Macro financial package (% of GDP)
Afghanistan	0	0
Bangladesh	12.5	1.57
Bhutan	0	0
India	26.98	5.9
Maldives	0	0
Nepal	16.66	0
Pakistan	47.16	0.63
Sri Lanka	28.71	1

**Source:** Elgin et al. (2020). <http://web.boun.edu.tr/elgin/COVID.html>

**Note:** Interest rate cuts by the monetary policy authority (percentage of the ongoing rate since February 1st, 2020).

We identify two indicators with respect to monetary policy measures: (i) interest rate cuts by the monetary policy authority (percentage of the ongoing rate since February 1st, 2020); and (ii) the size of the macro-financial package (as % of GDP)<sup>3</sup>. Among the South Asian countries, Pakistan undertook the highest cut in interest rates (47.16%), followed by Sri Lanka (28.71%), India (26.98%), Nepal (16.66%), and Bangladesh (12.5%). As a percentage share of GDP, the size of the macro-financial package is highest in India (5.9%), followed by Bangladesh (1.57%), Sri Lanka (1%), and Pakistan (0.63%). By contrast, the Maldives, Bhutan and Afghanistan have not undertaken monetary policy measures. This fact is in spite of the Maldives being hit extremely hard by the global lockdown.

### 3.4 Links to Sustainable Development Goals (SDGs)

We noted earlier that COVID-19 presents a severe challenge of saving lives and securing livelihoods in the midst of a global lockdown policy. And additional task is the timely achievement of the SDGs and its targets across nations. Table 5 summarizes the most pertinent details of the SDGs as outlined by the United Nations Department of Economic and Social Affairs (2020).

*Table 5: List of most affected SDGs due to COVID-19*

SDG Goals	COVID-19 Impact
<b>GOAL 1:</b> No Poverty	Loss of income, leading vulnerable segments of society and families to fall below Poverty line.
<b>GOAL 2:</b> Zero Hunger	Food production and distribution could be disrupted.
<b>GOAL 3:</b> Good Health and Well-being	Devastating effects on health outcomes.
<b>GOAL 4:</b> Quality Education	School for many closed; remote learning less effective and not accessible for some.
<b>GOAL 5:</b> Gender Equality	Women's economic gains at risk and increased levels of violence against women. Women account for the majority of health and social care workers who are more exposed.
<b>GOAL 6:</b> Clean Water and Sanitation	Supply disruptions and inadequate access to clean water hinder access to clean handwashing facilities, one of the most important prevention measures.
<b>GOAL 7:</b> Affordable and Clean Energy	Supply and personnel shortages are leading to disrupted access to electricity, further weakening health system response and capacity.
<b>GOAL 8:</b> Decent Work and Economic Growth	Economic activities suspended; lower-income, less work time, unemployment for certain occupations.

<sup>3</sup> See Elgin et al. (2020).

SDG Goals	COVID-19 Impact
<b>GOAL 10:</b> Reduced Inequality	Affected by disruptions in goal no. 4, 5, 8 and 11.
<b>GOAL 11:</b> Sustainable Cities and Communities	Population living in slums face higher risks of exposure due to high population density and poor sanitation conditions.
<b>GOAL 13:</b> Climate Action	Reduced commitment to climate action; but less environmental footprints due to less production and transportation.
<b>GOAL 16:</b> Peace and Justice and Strong Institutions	Conflicts prevent effective measures for fighting COVID 19; those in conflict areas are more at risk of suffering a devastating loss.
<b>GOAL 17:</b> Partnerships to achieve the Goal	Although aggravates backlash against globalization, highlights the importance of international cooperation on public health.

**Source:** UNDESA (2020).

Without substantial policy intervention, it seems quite a daunting challenge to achieve the SDGs goals by 2030. In an attempt to showcase the impacts of fiscal interventions on DRR, resilience and sustainable development in the South Asian region, Table 6 portrays the amount of fiscal boosting in USD on particularly the health and social protection sector announced by the respective SA nations connecting with the existing SDG index score.

*Table 6: Sdg Index Score Across South Asia*

Country	2020 SDG index score	Rank (Out of 166 countries)	Fiscal Boosting (USD million)	Sector
Bhutan	69.3	80	93	H
Maldives	67.6	91	334	H & SE
Sri Lanka	66.9	94	974	H & SE
Nepal	65.9	96	1,073	H & SE
Bangladesh	63.5	109	650	H & SE
India	61.9	117	5,654	H & SE
Pakistan	56.2	134	12,224	H & SE
Afghanistan	54.2	139	1,685	H & SE

**Source:** Sachs et al. (2020); ADB 2020a

**Note:** H indicates Health sector and H & SE represent Health and Socio Economic protection sector.

Among the South Asian nations; Bhutan has the highest SDG index score (69.3) with Afghanistan being at the bottom (54.2).<sup>4</sup> Among 166 global countries,

<sup>4</sup> Among the 166 countries, the highest 2020 SDG index score was achieved by Sweden (84.72) and the lowest score by the Central African Republic (38.54).

South Asia's larger nations - namely India, Pakistan, Sri Lanka and Bangladesh - rank at 117, 134, 94 and 109 respectively. The table also tracks the amount of fiscal boosting in such affected sectors as health and social protection<sup>5</sup> in the South Asian nations. We highlight health and social protection because of their signal importance in saving lives, reviving the economy, and achieving the SDG targets. We find that Pakistan has announced the highest amount of fiscal packages in the health and social protection sector, followed by India, Afghanistan, Nepal, Sri Lanka, Bangladesh, and the Maldives. Recently, officials in the Asian Development Bank (ADB) have proposed creating an effective regional hub for international tax cooperation (ADB 2020b). Two of the SDGs have emerged as extremely important in the discussion: i) Tackling global poverty, and ii) promoting shared prosperity. In addition, Sachs et al. (2019) introduced six transformations as modular building-blocks of SDG achievement. These transformations are: (1) education, gender and inequality; (2) health, well-being and demography; (3) energy decarbonisation and sustainable industry; (4) sustainable food, land, water and oceans; (5) sustainable cities and communities; and (6) the digital revolution for sustainable development. It seems imperative to operationalize these transformations through institutions within the disaster risk governance structures of the national governments.

#### **4. Scope of integration into resilience and development framework**

The COVID-19 pandemic will have a lasting impact on all aspects of development planning. The pandemic has brought to light the need for effective risk management to maintain current levels of development as a basis for further implementing the International Health Regulations (IHR), SDGs, the Sendai Framework, the Paris Agreement, and the New Urban Agenda, in addition to other global, regional and national frameworks.

Previous epidemic countermeasures have failed to include indirect and wider economic impacts in needs assessment and recovery planning. Yet designing and implementing effective recovery policies clearly require a detailed understanding of the overall economic impact of COVID-19. This comprehensive approach would be an important step for policy actions that promote economic growth while reducing inequalities and ensuring decent work for marginalized and high-risk populations. Providing a decent and safe work environment for frontline workers and healthcare personnel has also emerged as an important area for policymaking. Preparation of migration policies based on existing trends for biological hazards, e.g., revising migration policies in accordance with emergent pandemic and other biological hazards, may help national and sub national governments craft comprehensive and effective responses.

Outbreaks, epidemics and pandemics comprise a mix of health, social security and developmental challenges. Much like conflict and large-scale natural disasters,

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<sup>5</sup> Due to data limitations, only health sector fiscal boosting is shown in the Bhutanese case.

an outbreak has long-term impacts on livelihoods, the availability of food, and mental and physical wellbeing. Hence, the whole-of-society approach needs to be followed when responding to and planning for recovery from viral outbreaks, epidemics and pandemics. Concerning livelihoods, both formal and informal sectors are affected, though the extent of uncertainty may vary. In the formal sector, pay cuts and layoffs increase in the midst of an outbreak, reducing economic activity and tax revenues. In the informal sector, access to work becomes even more erratic, affecting food security and wellbeing. Lack of employment opportunities can thus push marginalized populations into poverty. The rise in public debt, inability to pay off loans, reduction in tax revenue, slow growth, low inflation, and reduced access to investment capital are common issues across all the sectors. Therefore, linking fiscal countermeasures with resilience and development frameworks is very important to address these issues and achieve a sustainable recovery. In this respect, we have examined the case of Japan, and attempted to draw a few lessons which can also be applied to South Asia.

Japan is advantaged by a robust resilience-oriented policy regime that pre-dated COVID-19 and then became a major conduit for channeling transformative aspects of the COVID-19 fiscal stimulus. For several years, Japan's policy context has been framed by multi-level and multi-stakeholder industrial policy that seeks to maximize the capacity to address such societal challenges as rapid ageing and depopulation in addition to the imperative of climate mitigation and adaptation (DeWit et al. 2020). For example, Japan's Society 5.0's policy arms include digital transformation in smart cities, remote-sensing for DRR, and integrating variable renewable energy. The Society 5.0 paradigm predated COVID-19, and was funded at JPY 781.6 billion in Japan's December 2019 stimulus. In April of 2020, Japanese COVID-19 fiscal countermeasures built on that December stimulus, increasing the transformative investment in Society 5.0 in tandem with protecting health and livelihoods.

Japan's Society 5.0 was also directly linked to the SDGs before COVID-19, and has become even more integrated since. One reason is that COVID-19 lockdowns highlighted the importance of digital networks in tandem with the challenge of maintaining fiscally viable regional economies. Thus, Japan's main business association, Keidanren, drafted a November 17, 2020 policy paper emphasizing the importance of "Society 5.0 for SDGs" as key to building back better from COVID-19 (Keidanren, 2020). Similarly, Japan's National Governor's Association, reflecting a consensus among subnational governments, explicitly linked Society 5.0 and SDGs actions as critical transformative policies for a resilient recovery from COVID-19 (NGA, 2020). Even before the onset of COVID-19, Japan's multi-level action on SDGs was more robust than other developed countries, in encouraging Japanese subnational governments to address domestic challenges as much as external engagement and global contributions (Sekii, 2019). And during the 2020 year of COVID-19, Japan's SDGs collaboration has clearly deepened as a mechanism for promoting a sustainable recovery.

Japan's pre-COVID policy regime for resilience and transformative development was not limited to Society 5.0 and SDGs. It had four pillars: 1) SDGs and their local planning and implementation; 2) Society 5.0 and its planning and implementation; 3) Smart/Super city projects as venues for deploying the fruits of industrial policy, green infrastructure, open-data, and other aspects; and 4) National Resilience planning and implementation. DeWit et al. (2020) argued that the effectiveness of fiscal stimulus is enhanced by extant resilience-oriented plans and institutions to channel the flow of funds. And indeed, Japan's COVID-19 fiscal stimulus of 42% GDP is increasingly being directed into sustainability through public-private collaboration and national resilience planning. In addition, current planning for Japan's Fiscal Year 2021 national budget and 3<sup>rd</sup> supplemental budget (for the 2020 Fiscal Year) indicates that building back better from COVID-19 is likely to expand.

Let us examine pertinent details of Japan's collaborative context, which is helping channel COVID-19 fiscal stimulus into sustainability. As is shown in Table 7, Japan has a broadly inclusive Local SDGs Public-Private Collaborative Platform. The table lists the platform's members by category (e.g., subnational governments) and then by the total members per category. As of October 31, 2020, the platform's membership includes 807 of Japan's prefectural and local governments in addition to most of the national government's central agencies (including the Cabinet Office and ministries concerned with finance, internal affairs, health and labour, education, the economy and industrial policy, and the environment). In addition, civil society was broadly represented by 2,618 business firms, research institutions, NPOs and other organizations. Importantly, the total membership of 3,438 nearly tripled compared to the April 2020 total of 1,235 members. This rapid increase in the platform's total membership, in just 6 months, reflects the impact of COVID-19.

*Table 7: Japan's Local SDGs Public-Private Collaborative Platform*

Member Category	Number of Members
Sub national Governments	807
Central Agencies	13
Private Firms and others	2,618
Total Membership (as of October 31, 2020)	3,438

**Source:** Future City, 2020

Another important vehicle for shaping Japanese action is its Smart City Public-Private Collaborative Platform, whose total organizational membership is itemized in table 8. Of particular note is the growing number of local governments, 134 as of November 5, 2020, a significant increase over the 114 recorded in April of the same year. This platform is yet another venue via which Japan is implementing the

Paris Agreement, SDGs, and SFDRR, with best practices shared among multiple stakeholders.

*Table 8: Japan's Smart City Public-Private Collaborative Platform*

Member Category	Number of Members
Sub national Governments	134
Central Agencies	11
Businesses, Research Centres, and others	410
Business Associations	2
Total Membership (as of November 5, 2020)	544

**Source:** MLIT, 2020a

A more recent platform is Japan's Green Infrastructure Public-Private Collaborative Platform. Table 9 shows that its membership as of September 30, 2020 exceeds 714 local governments, central agencies and other stakeholders. This total is a significant increase over the 409 members when the platform was set up 6 months earlier, on March 18. Moreover, the local government membership includes Sendai City (the host city for the 2015-2030 Sendai Disaster Risk Reduction program), Tokyo, and other influential cases. Moreover, the important role of central agencies is coupled with the participation of business, academe, NPOs and other stakeholders whose collective expertise encompasses water, energy, construction, and other areas crucial to designing and implementing comprehensive green-infrastructure solutions. Under COVID-19, Japan's growing emphasis on green-infrastructure helps channel investment into climate mitigation, adaptation and inclusive sustainability.

*Table 9: Japan's Green Infrastructure Public-Private Collaborative Platform*

Member Category	Number of Members
Sub national Governments	53
Central Agencies	4
Businesses, Research Centres, and others	244
Individual Memberships	413
Total Membership (as of September, 30, 2020)	714

**Source:** MLIT, 2020b

Yet another of Japan's key collaborative governance platforms is National Resilience (DeWit et al. 2020). Japan's National Resilience initiative dates back to 2014 and emphasizes all-hazard disaster preparation, building back better, and "whole of government" collaboration. Its ambit overlaps with the platforms discussed above, in that it encompasses smart communications, sustainable



energy systems, resilient water networks, and the other critical infrastructures. Moreover, the impact of COVID-19 has also accelerated its diffusion among subnational governments. By October of 2020, all of Japan's 47 prefectures had adopted their own regional versions of the National Resilience Planning (NRP). As we see in table 10, as of October 1, 2020 1,685 of Japan's 1741 cities, special wards, and towns had either adopted their own local versions of the NRP or were formulating plans. That number of local governments doing NRPs was just under eight times the 203 total in July of 2019. In this case too, multi-stakeholder and multi-level governance is encouraging the productive and sustainable deployment of COVID-19 fiscal stimulus.

*Table 10: Japan's Local National Resilience Plans (NRPs)*

Administrative Level	July 1, 2019	October 1, 2020
Local Government	203	1,601

**Source:** National Resilience, 2020

Japan's collaborative governance remains a work in progress rather than a benchmark of what to do. All the same, the significance of Japan's multi-level, collaborative approach is seen in its contrast with Europe. In the latter, inadequate fiscal aid and resilience-oriented governance are risking a poor post-COVID outcome. A joint survey by the EU Committee of the Regions (CoR) and the OECD warned of this in a November 19, 2020 presentation. The CoR/OECD findings reveal that EU sub national require significant investments in resilience and digitization in order to achieve a sustainable recovery. Yet the Director of the OECD Centre for Entrepreneurship, SMEs, Regions and Cities argues that current initiatives are "disjointed" and lacking in coordination. "Governments must make a concerted effort to coordinate effectively and implement meaningful policies that will help these local and regional areas emerge from the crisis more resilient and sustainable" (CoR, 2020).

Japan's example offers hints for South Asia. It shows that a robust and goal-oriented institutional context enhances the scope for proper integration of fiscal boosting in national and local planning. South Asia countries can build on their own institutional resources. For example, Bangladesh's Delta Plan is an overarching development framework until year 2100, which encompasses all components of urban and rural planning. Though beyond the scope of this paper, it would be valuable to examine the extent to which fiscal boosting has strengthened Delta Plan implementation. There is ample room to explore synergies with such development activities increasing the use of environment-friendly and cost-effective agricultural technology, the mechanisation of agriculture, enhancing renewable energy, expanding agricultural lands, ensuring women's empowerment

in agricultural activities, use of information technology in agriculture, and the diffusion of bioscience technology. Similarly, India's 100 Smart City program is a core developmental pathway for smart and green urban infrastructures. Over the past few years, the Indian government has invested in its smart city program, especially in terms of upgrading infrastructures. It is now time to look at the holistic urban development, keeping in mind ecosystem based recovery and business development, as argued by Mukherjee et al. (2020).

## 5. Conclusion

This paper analysed fiscal and related policy in South Asian countries, which were in differential stages of development before the pandemic. Prolonged lockdown in most of these countries has severely affected lives and livelihoods, and undermined development goals. Our analysis of the fiscal boosting in eight South Asian countries has pointed out different aspects, based on the country's economy, dependence on external assistance, and emphasis on health and socio-economic protection sectors. Fiscal boosting will differentially affect SDGs as shown in the previous section. The analysis of Japan's fiscal stimulus measures (already over 40% of GDP and slated to increase) indicates that fiscal stimulus works well when it is integrated with extant schemes for resilient national and local development. Thus, it is argued that the effectiveness of fiscal boosting in South Asian countries is likely to be enhanced if it is integrated into national development frameworks such as the Delta Plan in Bangladesh or smart city programs in India.

Lastly, the COVID-19 pandemic recovery is a chance to "build back better" while leaving no one behind. An inclusive, long-term recovery plan for South Asian countries needs to take a holistic approach to address existing gaps and work towards sustainability. A biological hazard like the COVID-19 pandemic affords an opportunity to strengthen the partnerships central to SDG 17. Partnerships are needed to develop warning mechanisms in addition to reducing gaps in data sharing and accuracy for effective evidence-based policy and decision making. Multi-stakeholder partnerships are an essential complement to exploit advances in science and technology. Thus bolstered global partnerships and effective risk governance need to be brought into the core of preparedness and response for future health emergencies. In this respect, furthering the Health Emergency Disaster Risk Management (HEDRM) Framework may support a coordinated response across various linked sectors rather than straining one particular sector.

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# Onion Farmers' Plight and Price Hike of Onion in Bangladesh: A Human Development Crisis in Corona Pandemic

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## Abstract

*Smallholder family farmers cannot gain from the price hike of onion, which has become a regular phenomenon in contemporary Bangladesh. Instead, they undergo losses in onion farming, mainly for two reasons- incurring high input costs and getting deprived of a fair price of the produce. This livelihood problem has become acute in the Corona Pandemic and negatively impacted the human development of household members of smallholder onion farmers. Proactive public policy and actions are needed so that the smallholder family farming households engaged in onion farming can expand their production at a low cost and end with a lucrative margin. It will ultimately lead to a sustainable solution of recurring onion price hikes in the country and contribute to the human development of the members of smallholder onion farm households.*

**Keywords** COVID-19 · Onion farmers · Onion price hike · Human development crisis · Bangladesh

## 1. Introduction

Historically Bangladesh is a country of smallholder family farmers (Suhrawardy, 2013). A considerable portion of the smallholder family farmers of the country cultivates onion<sup>1</sup>. They pursue onion farming mainly for sale. They face problems accessing inputs, storage, transportation and getting a profitable price of onion; these problems have been acute during the COVID-19 pandemic. Though ordinary

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<sup>1</sup> The onion (*Allium cepa* L., from Latin *cepa* “onion”), also known as the bulb onion or common onion, is a vegetable that is the most widely cultivated species of the genus *Allium*. (<https://en.wikipedia.org/wiki/Onion>)

people often experience price hikes for onions, the smallholder family farmers cannot reap the profit from onion farming all the time; often, they undergo losses. Their farming losses become a deficit in the human development of their own and their family members.

## 2. Onion Farmers and Their Plight

Around 1.3 million (13 lakh) farm households in Bangladesh are engaged in onion farming (Sadik, 2019). At least half of them are smallholder family farmers. Onion is cultivated almost in every district of the country. However, superior quality onion is produced in greater Faridpur, Natore, Pabna, Meherpur, Sirajganj, Rajshahi, Chuadanga, Kushtia, Rangpur, Dinajpur and Bogura (Shahin, 2018). About 0.23 million (2 lakh 30 thousand) hectares of land are under onion cultivation.

The farmers can produce the entire amount of onion demanded locally. The demand for onion in the country amounts to around 2.4 million (24 lakh) tons. The local farmers produce about 1.6 to 1.7 million tons in one season (winter); hence, another 0.7 to 0.8 million tons of onions must be imported. Usually, the farmers do not produce onion for more than one season for lack of seed and technology, which remains key behind the product shortage. Apart from this fundamental constraint, the smallholder family farmers do not or cannot expand their production scale because they are not sure of making a profit all time from onion farming. Costing of onion farming, especially the cost of seed and labour, is increasing daily, while farmers cannot get a fair price. Lousy weather, mainly rain, affects the yield of onion negatively.

### *Field level data and information on onion farming*

District	Upazila	Costing	Revenue	Constraints	Other important issues
Manikganj	Harirampur	Tk. 900 per decimal (without own labour cost)	Tk. 500 per maund (beginning of the season) Tk. 600-650 per maund (Middle of the season)	Market price low, price of fertilizer and insecticides increased, Labour cost increased	2 maund per decimal (in a best yielding season); No profit
	Shibaloy	Tk. 900-1000 per decimal	-	-	Breakeven point, Those who have a lower yield have to undergo a loss
Pabna	Sathia	-	-	Rain, Lower price of onion	Fear of wastage surpasses the fear of Covid-19 contamination

District	Upazila	Costing	Revenue	Constraints	Other important issues
Sirajganj	Sadar	Tk. 55,000 (Tk. 30,000 for seed) per bigha	-	Rain, High cost of input, including seed	High market price attracts farmers, Market is flooded with 'guti' onion when farmers are in harvest

**Source:** Banglanews24.com (2019), Das (2019), Banglanews24.com (2020)

Onion farmers, especially smallholder family farmers, suffer from production loss, price loss, and profit loss due to conventional farming problems in the country and specific issues related to onion farming.

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#### Voices from the onion farmers

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“Costing of onion farming is increasing day by day. Compared to the market price of onion is a trifle. About 1.5 maund yield per decimal after costing of Tk. 900 to 1,000 only makes the invested money possible. However, those with a lower yield have to undergo loss.”

Saddam Hossain, an onion farmer of Manikganj

“In case of rain, onion cannot be kept safe, and the price will fall. So it won't do sitting idle for fear of COVID-19. Only after harvesting we'll have the scope of thinking about it.”

Liton Biswas, an onion farmer of Pabna

“We make a loss every year from onion farming. On the one hand, production decreases due to unfavourable weather; on the other hand, (we do not) get a fair price in the market. Henceforth, onion farming is declining day by day in this region.”

Onion farmers of Char Haripur, Jagat gati and Koyel Gati of Sirajganj

**Source:** Banglanews24.com (2019), Das (2019), Banglanews24.com (2020)

Non-availability and non-access to good quality seed remain a grave concern for smallholder onion farmers. Family farming has the tradition of storing and making seeds at home (Barkat & Suhrawardy, 2019). But in the case of onions, the farmers cannot produce good quality seeds due to the complex onion seed production process (Shahin, 2018). About 800 tons of seeds are in demand, while the supply (jointly by the public and private sector) remains one-tenth (Farook, 2018). Besides the seed crisis, the smallholder onion farmers also face problems accessing inputs in the onion production phase due to their poor financial condition and the short supply and supply of below-standard inputs. Productivity or yield at the farming level suffers when the smallholders fail to go for timely irrigation and



apply adequate pesticides after planting seedlings. All these traditional problems of the smallholders get critical in COVID-19<sup>2</sup>.

Smallholder farmers need easy and comfortable access to formal credit sources to combat the rising cost of farming inputs (Suhrawardy & Zaman, 2021). Still, the smallholder family farmers involved in onion farming cannot access agri-credit easily. Honourable Agricultural Minister himself admits this harsh reality mentioning, “Agricultural credit is given to the farmers at only 4 per cent interest rate for the cultivation of spices like onion, garlic etc. Unfortunately, real farmers cannot access this loan. Local influential people misappropriate this loan by using it in some non-agricultural activities” (Banglanews24.com, 2021).

### **Onion Price Hike: Any Gain for Smallholder Family Farmers?**

Shortage of local supply (or production) is the crucial reason behind the onion price hike. For about one-fourth of the local demand, Bangladesh has to depend on the import of onion. The sole source for onion import in the country is India. Over-dependence on this single import source is the second most key reason for the onion price hike. The third price-hike reason, i.e., profit lust of local wholesalers, emanates from the two reasons mentioned. The large onion traders make the fake crisis of onion soar the price.

Beyond economics, some geo-political issues are manifested when India bans or limits onion export from their country. However, onion price hike issues (maybe of heavy rainfall in Nasik of Maharashtra, other economic problems in Bengaluru, or even geo-political issues) of India can reach Bangladeshi importers and traders well ahead of time than the smallholders do.

The smallholder onion farmers have little to do in realizing profit from the price hike. They do not get the price during the harvest time (May, June and July) as there is ample supply. They cannot store or hoard their produce due to a lack of storage facilities. So when the price is getting high (September-October, or March-April and during the Eid festivals), they do not have much to sell and grasp the share of the price hike. Ultimately, there is no gain for smallholder onion farmers in the event of a usual price hike.

### **Impact of Loss of Onion Farming on Household Welfare**

Income from onion farming makes an essential share in the farm earning of numbers of smallholders. This income positively impacts household food security

<sup>2</sup> A recent study by Barkat et al. (2021) reveals that many marginalized farmers (38%) have failed to produce crops due to supply shortage (18.2% HHs) and high cost of agricultural inputs-- seeds, fertilizers, pesticides (26.8% HHs) during and after the COVID-19 driven lockdown. Restrictions on movement and the transport crisis led to a shortage of agricultural labour (18.9% HHs), causing severe disruption in agricultural production (cultivation and harvesting). About 51.3 per cent of farm households could not sell their products in the market due to COVID-19 induced lockdown; 71.5 per cent did not get a fair price.

and other human development pursuits like access to education and health. A good harvest of onion and succeeding earnings would enable the smallholders to finance following season paddy farming or purchase paddy in time. This earning provides scope for funding for the education of household children. So any income loss or curtailing impacts negatively on household human development efforts to various extents.

### **3. Conclusion and Recommendations**

The prime beneficiaries of the onion price hike in Bangladesh are foreign exporters (mainly Indian onion traders) and Bangladeshi importers. The main losers of this price hike are farmers (especially smallholder family farmers) and general consumers.

Two sets of recommendations are put forward; the first is for the smallholder family farmers to get a fair price of onion, and the second is for the general consumers so that they can consume onion at a reasonable price.

#### **A. Recommendations for the welfare of smallholder family farmers**

1. High-quality seed (like BARI 5) should be provided to the farmers so that they can go for onion farming more than one time (especially during summer) in a year and to a more significant extent;
2. Storage facilities at the farmer level should be ensured so that they can hold their produce for a better price;
3. Steps like training, input support etc. should be taken so that the farmers can produce more onion with fewer costs through the application of modern technology;
4. Access to less costly, hassle-free formal credit should be ensured for the smallholder onion farmers to finance adequate and timely input in onion farming.

#### **B. Recommendations for the welfare of general consumers**

1. Timely import and pro-active public interventions (Track-sale of TCB, duty-off etc.) should be there to control the price;
2. The market should be monitored regularly so that nobody can create a fake crisis by hoarding;
3. Import source needs to be diversified.

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## Economics of Coronavirus: In search of best alternative amid Covid-19

Kazi Muzafar Ahammed\*

### Abstract

*Economics of Coronavirus (Coronamics) will deal with the economies facing severe crises like the Novel Coronavirus Disease (Covid-19). This article advises people not to panic about Covid-19. Coronamics aim to find out ways and means to face any crisis caused by man-made calamities like pandemics or embargoes or sanctions and help the affected people who can survive by maintaining their livelihood mainly with food, medicine and other essentials and can steer the economy, the nation and the country again to the right direction for further development during the bad times and beyond when these will be over. Accelerating the growth of domestic production of goods and services will be one of the best alternatives to minimise the impacts of the pandemic through creating and retaining employment and providing sustainable livelihood for all, including infected, cured and healthy residents of the country. Export trade has been frustrated due to the global lockdown. Now it is a turn for a domestic economy that has to be cared for stabilising supplies, prices and growth, and mitigating loss of export earnings and remittances with all efforts and judgments.*

**Keywords** COVID-19 ·

### 1. Introduction

The world came to know the current outbreak of Covid-19 that was first reported from Wuhan, China, on 31 December 2019. Since then, Covid-19 has spread all over the globe and forced most governments to lockdown their countries affecting the economies in terms of a slowdown in production, loss of exports, loss of employment and disruption of supply chains and markets.

The human race has been passing through a difficult path where Covid-19 is not the only obstacle. Amid the Covid-19 outbreak, people of the world

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have been witnessing some opportunist countries which have been relentlessly intimidating the warmongering superpowers into war with some Middle Eastern and Asian Countries that Covid-19 and embargoes have already weakened. Any such imprudent decision of warmongering states will further aggravate the world, which has already been in crisis due to the Covid-19 pandemic.

The Middle East countries are facing unprecedented economic shock due to the reducing volume of oil trade as well as the declining price of oil. Export-oriented countries have been facing a reduction in export earnings and foreign remittance. Consequently, the economic growth of these countries has been reduced. Thus, Covid-19 has yielded a new economic order for the nations with an emphasis on enhancing domestic production of enough goods and services for their consumers and retaining and generating more employment opportunities to sustain the livelihood of all amid any pandemic and natural or man-made disasters.

## **2. Islamic teachings and ways of life to face an outbreak of pandemic**

According to the Holy Quran, calamities have appeared on land and sea because of what the hands of the people have earned so that He (Allah) makes them taste some of what they did so that they may return (to the right way as chosen by Allah) (referred to Al Quran, Surah 30, Ar-Rum, Ayat 41). For example, the Covid-19 pandemic is one of the calamities. Calamities have widespread impacts on the lives and well-being of humans and animals. Calamities have resulted in the loss of lives, wealth, jobs and incomes, shortfall of crops and fruits followed by lack of livelihood and famine.

Teachings and ways of life of Islam shape and develop the behaviour of Muslims throughout their life that builds confidence and courage to face an outbreak of a pandemic. The Prophet Muhammad (peace and blessings be upon him) said about travel bans and quarantine during an episode of epidemic/pandemic, “If you hear of an outbreak of plague in a land, then do not enter into it; but if the plague breaks out in a place while you are in it, do not leave that place” (Sahih al-Bukhari, Volume 007, Book 071, Hadith number 625). The Messenger of Allah (peace and blessings be upon him) said, “Purity is half of faith (iman)” (a Nawawi’s Hadith number 022). Purity can be obtained through cleansing oneself after using the toilet and practising ablution. The Prophet Muhammad (peace and blessings be upon him) also advised to wash hands frequently, maintain cleanliness and social distancing to avert a lethal infectious disease when it outbreaks a pandemic. If the advice of the above Hadiths were complied with, then the Covid-19 should be cured in Wuhan. Unfortunately, Covid-19 has a chance to spread worldwide from Wuhan due to a lack of travel ban and quarantine.

As far as Islam is concerned, if anybody, who is a believer, dies from the Covid-19 pandemic, then s/he will be treated as a Martyr (Shahid). Those believers who stay in their country and escape this disease will also be regarded as Shahid.

According to Hadith compiled in the Sahih Bukhari, "... it (plague) was a punishment sent by Allah on whom he wished, and Allah made it a source of mercy for the believers, for if one in the time of an epidemic plague stays in his country patiently hoping for Allah's reward and believing that nothing will befall him except what Allah has written for him, he will get the reward of a martyr," narrated by Hazarat Aisha (R) (the wife of the Prophet). Thus, both situations seem beneficial for the believers in Islam, which is Allah's first and only religion bestowed on humanity. Therefore, it is straightforward for a Muslim to embrace death, which is the ending of the first chapter of life, the starting point of the second chapter of life in the grave and the final chapter that starts with the resurrection to eternal life.

### **3. Impacts on healthcare facilities due to Covid-19**

Globally, 252,321,780 persons have been infected with Coronavirus, 5,092,088 persons died and 228,348,780 persons recovered from this disease as of 11.11.2021. In Bangladesh, there have been 1,571,669 infections, 27,906 coronavirus-related deaths and recovered 1,535,661 up to 11.11.2021 since the pandemic began.

Lockdown was imposed several times in many countries to face Covid-19. Many hospitals, clinics, banks, financial institutions and government and private offices were fully or partially closed. On the other hand, many patients did not go to hospitals and clinics due to fear of Covid-19 infection. Sometimes patients with severe health conditions cannot take necessary medical helps to cure or prevent diseases other than Covid-19 due to a lack of required services at hospitals that patients and the want of doctors partially run. All country residents face enormous pressures to maintain health through procuring necessary medicines, protective devices such as Personal Protective Equipment (PPE) for Covid-19, and essential commodities.

Covid-19 creates many health-related problems, mainly local and international, significant in magnitude and multidimensional in socio-economic perspective. Covid-19 has put stress and strain on the supply of medicines and healthcare facilities like masks, sanitisation, cleaning agents, and detergent since the disease outbreak on 31 December 2019. The pharmacies run short of supply of these items to sell to the customers due to lack of stock. For example, from the beginning of the pandemic, the mask has been proved to be very effective in escaping Corona Virus infection. Therefore, some famous slogans that various offices use at their entrances to inspire people to wear masks are: "No mask, no entry", "Wear Mask, Get-Service", etc. Many people could not buy masks from the shops due to shortages created by panic purchasing this item by the privileged groups at the beginning of the pandemic.

Similarly, hand sanitisers and antiseptics could not be bought from the shops due to a supply shortage. Frequent hand wash has been proven to be most effective in removing Covid-19 infection. However, hand wash facilities could not be extended to all till now due to lack of provision.

Covid-19 test facilities were minimal and highly expensive at the beginning of the pandemic. Unscrupulous people took advantage of the conditions, and they cheated many patients.

Lockdowns, countrywide and worldwide, during pandemics, caused to disrupt many essential routine check-ups for healthcare services for maintaining health and hygiene, which are as under:

- Firstly, Antenatal care (ANC) was seriously hampered for women throughout their pregnancy who could not access micronutrient supplementation, treatment for hypertension to prevent eclampsia, and immunisation against tetanus.
- Secondly, neonatal healthcare services were also hampered due to the Covid-19 surge.
- Thirdly, managing severe acute malnutrition in infants and children was hampered due to the Covid-19 surge.
- Fourthly, routine immunisation has been hampered due to lockdown that will pose a long-term threat to the future generation's health.

### **3.1 Covid-19 vaccines**

The health sector has diverted resources from routine works to develop, manufacture and deploy safe and effective Covid-19 vaccines. Equitable access to safe and effective vaccination is critical to ending the COVID-19. Presently at least 200 countries have started vaccinating against Covid-19. More than 7.43 billion doses have been administered across 184 countries, and the rate is roughly 33.80 million daily doses as of 13.11.2021. As of today in Bangladesh total of 82.60 million doses have been given out of that 32.30 million people, i.e. 19.6% of the population have been fully vaccinated. The impact of vaccination is spectacular; that helps people to come together in travelling from one place to another, workstations, educational institutions, communities and places of worship. To end the Covid-19, we must ensure fair and equitable access to vaccines and ensure everyone gets vaccinated to protect them from the disease.

### **4. Impact on transport facilities**

Travelling facilities were reduced due to a shortage of public transport available on the roads. As far as sitting arrangement is concerned, two seats were allotted for one person, i.e. public transport would run with 50% of passenger's capacity, and the fares for passengers were raised by 60% to compensate bus owners (the Dhaka Tribune, 30 March 2021).

### **5. Acceleration of domestic production of enough goods and services**

During the pandemic, all individuals, including infected, cured and healthy residents of the country, are to be provided with their sustainable livelihood in terms of basic needs that cover Food, Shelter, Health, Cloth and Education. This article mainly

concerns all sustainable livelihood, such as during and beyond Covid-19 when it will be over Inca Allah. During the pandemic, we have to think for our present generation immediately. Beyond the pandemic, we must keep provision for future generations for those who will escape from this disease for their survival in this world in the coming days.

Due to the global lockdown, world food production is likely to be reduced substantially. Two possible immediate impacts are apprehended here. Firstly, the country will be unable to import any food from abroad due to the global lockdown. Secondly, the tight supply of world food will also dry up prospects of imports and food aid. Further export trade has been frustrated due to the global lockdown. In the present global lockdown, the best alternative is to minimise the impacts of Covid-19 by exploring the potential domestic economy, which is almost in our grips, for producing goods and services with all efforts and judgements to stabilise supplies, prices and growth.

## **6. Strategy for boosting internal food production**

An efficient policy has to be planned and executed to stabilise price and food supply and distribution in the entire year and beyond. As far as food security is concerned, we have to ensure core food items for the consumers, which are as follows:

### **6.1 Core food items**

We have to fulfil the requirements of core food items of the citizens/residents of the country. The core food items as chosen by the Bangladeshis are rice, pulse, edible oil, wheat (coarse flour & flour), milk/powdered milk, salt, sugar, potato, chickpea/gram/pea, fish & fish products, livestock & livestock products, chilli, onion, garlic, ginger, etc. We are fortunate that Allah has given us a country capable of producing our core food items abundantly in alluvial soils by millions of small farmers for our people and the international communities.

### **6.2 Incentives for sustainable self-sufficiency in core food items**

Incentive package induces millions of small farmers to produce more food. Bangladesh has plenty of scopes to avail full potential of 3 seasons in a year to make its core food items and reduce dependency on imports to a large extent.

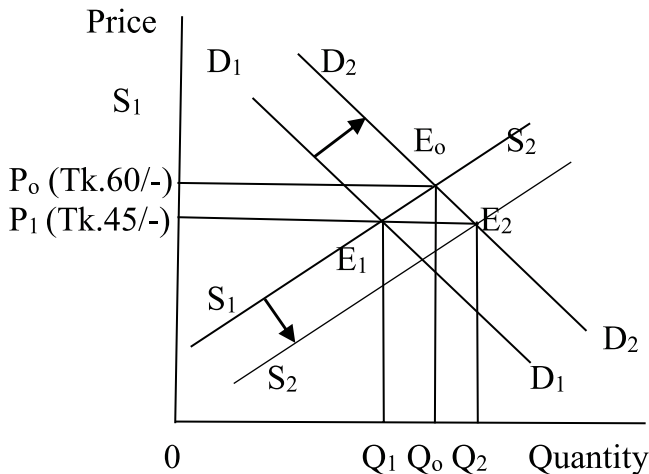
#### **6.2.1 Price Policy**

The right price is one of the main incentives for farmers to produce more food. Thus, as an instrument, we have to ensure the correct prices for increasing domestic products. For an analytical tool, we can give an example of the local production of onion. If we can provide the correct prices for onion, then many small farmers of the country will be eager to produce a greater volume of onion, even with the prevailing price. Let us



suppose the overall average price of onion is Tk.45/- (at  $P_1$ ), as shown in figure-1 at  $P_1$ . The producers and consumers are happy with the present price  $P_1$  and quantity  $Q_1$  that has been settled by supply ( $S_1S_1$ ) and demand ( $D_1D_1$ ) at  $E_1$ . Demand for domestic onion will increase to  $D_2D_2$  due to a lack of imports for global lockdown. The onion producers will also increase their production, thereby enhancing supply by  $S_2S_2$ . The consumers will be able to buy a larger quantity of onion  $Q_2$  with the same price  $P_1$  settled by supply  $S_2S_2$  and demand  $D_2D_2$  at  $E_2$ . The consumers will be protected with a stable price and stable supply of onion. The total income of onion producers will increase with the sale at the same price level, which will increase the country's Gross Domestic Product. This example can be replicated to other core food items with modification if required. Conversely, if we cannot increase domestic production ( $S_1S_1$ ), then higher demand for the trained product ( $D_2D_2$ ) will enhance the price to  $P_0$  (Tk.60/-) with a higher quantity  $Q_0$  (Giffen good) at  $E_0$ , which is less than  $Q_2$ . Thus, the consumers will be affected by the higher price and lower quantity.

Figure 1: Domestic onion production under lockdown due to Covid-19



### 6.2.2 Input Policy

The present policy for providing essential inputs with subsidies is to continue to sustain growth of domestic production to attain food security. Provision for subsidised inputs may be justified for the nation's survival with dignity, human development and overall socio-economic development. Thus, due to uncertainty of the world food markets and lack of food aid subsidy for accelerating domestic food production is to be treated as a premium for national food security. The following inputs are needed to be made available urgently at subsidised prices:

Seed: The self-reliance on quality seeds for the country can be achieved by promoting in-country research for innovation, saving, multiplication and making available to the producers at a lower cost.

**Fertiliser:** Prices of fertilisers must be kept minimum to induce farmers to increase production. To promote sustainable food production in Bangladesh, fertilisers should be produced, procured and made available.

**Irrigation:** Bangladesh aims to promote irrigation technologies to bring more areas under irrigation at a lower cost to increase productivity and production of quality food and to combat desertification caused due to diverting water flows by the upstream river nations.

### **6.2.3 Credit Policy**

Necessary credit facilities are to be extended to the farmers at lower interest rates. Recently, various stimulus packages have been announced as incentives by the Governments of most countries, including the Bangladesh Government for inducing farmers to boost production.

### **6.2.4 Transport Policy**

During the lockdown, necessary transport facilities have to be provided so that workforce can move to their workplaces, products can be sent to markets for sale, and supply chains are sustained.

## **7. Management of food for food security**

The main objectives of food policy are to stabilise supplies and prices of food items and bring forth the poor under price support and charitable food programmes. Food management is vested in a man who controls its supply, distribution and consumption. Man can promote food security through proper management and can also causes to food insecurity and famine through mismanagement.

### **7.1 Famines in Bangladesh**

Let's go back to the past of this country. We can see that the world's worst famines took place in Bangladesh in 1769, 1770, 1943 and 1974 due to instability and high variation of domestic food production and price reduced income of the wage labourers, marginal and landless farmers, fishers, blacksmiths, potter and service providers like haircutters, rickshaw drivers or rendered them jobless. They failed to acquire food due to a lack of purchasing power, price support, and charity. The country also came across a Silent Famine or Hidden Hunger in 2008 that took place due to crop failures for two devastating floods and one super cyclone (SIDR), import problems for restrictions imposed by surplus countries, tight supply, lack of foreign aid and impacts of State of Emergency set in 2007 and 2008. We have to guard against famine in this country by ensuring food security to all at all times by applying food policy instruments.

### **7.2 Supply side food policy instruments**

The food supply can be obtained by increasing domestic production, import or food aid or a combination. Without import or food aid, the acceleration of domestic

food production is the only way to acquire supply. A viable storage facility must be built up by contracted supply, which all can access.

### **7.3 Distribution side food policy instruments**

Benevolent distribution can ensure food security through efficient and transparent marketing and income transfers, the opportunity for buying food, increasing purchasing power by generating employment or income transfers, controlled distribution and saving of seeds and prohibition of alternative uses of food and agricultural lands.

### **7.4 Consumption side food policy instruments**

The ultimate objectives of food policy are to increase consumption. The policy instruments are to interact with evolving a policy check-valve to stop the leakage of the benefits streams generated by positive transfers of all policy instruments to maximise food consumption.

### **7.5 Population census, household Survey and agricultural survey**

Population census, household survey and agricultural survey are urgently needed to get up-to-date data to help and guide the planners, the policymakers and the administrators of the state to launch appropriate programmes to enhance the production of domestic food and for proper distribution of food so that everybody gets their provision for food thereof based on gathered information.

### **7.6 Optimum utilisation of wealth and resources of the State**

For proper attainment of the objectives of accelerating domestic production of goods and services, all wealth and resources of the state (land, labour and capital) have to be utilised optimally with wisdom and skills as per censuses, household surveys and agricultural surveys. The stimulus packages announced by the Governments have to be targeted and used accordingly.

## **8. Employment generation and employment retention during Covid-19**

Employment opens up the scope for selling labour for decent work that is a suitable means of earning income to procure livelihood for own and their families. Covid-19 has triggered one of the worst jobs crises, increased poverty, and widened inequalities since the Great Depression. Soon after the pandemic, informal jobs in our country fell drastically like haircutters, beauticians, potters, daily wage workers, domestic workers, garment workers, fishers, blacksmiths, transport workers, rickshaw driver's office clerks and officers of private offices, beggars, and so many others who lost their jobs, incomes and livelihoods.

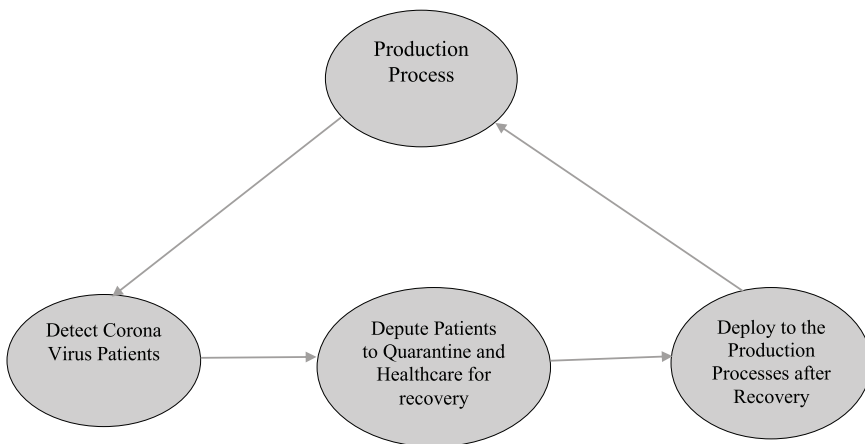
During the worldwide shutdown, the domestic farms and enterprises have to be kept open mainly for two reasons, e.g. firstly, to produce enough goods and services for all domestic consumers as well as to retain and generate employment of the thousands of local workers to enable them to earn income for procuring livelihood

of their own and millions of their dependents. A simple operational strategy for keeping on production as well as retention and generation of employment during Covid-19 will be as follows:

To meet the demands for goods and services of the people of the world, the production processes will have to be opened by observing necessary health precautions and protective measures prescribed by the physicians to face Covid-19. However, it is not easy to keep on the production processes due to the pressures exerted by Collective Bargaining Agent (CBA) leaders who have been trying to stop the production process but accessing the benefits of the various stimulus packages as declared by the Governments. Sometimes the news agencies also publish dubious news and create chaos and confusion in the minds of the leaders of CBA and the workers.

Now we are talking about a simple production process that produces rice in Bangladesh for domestic and international consumers. The current cropping seasons of 2021 must be used in full swing to continue the supply of good rice for the people.

Figure 2: Rice production process under lockdown due to Covid-19



**Production Process:** Safe zones have to be established for rice production. Most paddy fields are located in remote villages in alluvial soils covered and protected with natural beauty and environment. Each paddy field is divided into many small pieces of land owned by different persons. People do not work simultaneously in their areas, so social distancing is maintained naturally. If anybody falls sick during work, a Coronavirus test must be done immediately. If the patient is detected positive, s/he will be deputed to quarantine and healthcare for recovery. During quarantine and healthcare, each patient will be treated as on duty or work and receive their salary as usual. In case of any death, their dependents will receive pensions up to their maturity and earning family members.

The state will provide necessary funds out of relief fund and stimulus package as announced by the Government to overcome the crisis along with matching funds if there is any form part of employers on account of food, medicines and salary for the ailing citizens during this pandemic and pension and jobs for dependents in case of death due to Covid-19. We have seen that people have been recovering much more than death from Covid-19. When anybody recovers from Covid-19, then s/he can be deployed to the production process again. Thus, our fields will be filled in with golden paddy. Likewise, the same system can be replicated in the production processes of Tea and other sectors if required with slight modification.

## **9. Social security/safety net: Exploring potentials of the festival economy in Bangladesh to face Covid-19**

### **9.1 Economy of Ramadan**

My Allah has blessed me to be present during the 61<sup>st</sup> Ramadan of my mortal life in this year 2021. Ramadan is one of the five pillars of Islam. The Muslims have been fasting during Ramadan since 610 A.D. Ramadan teaches humanity to learn and practice Islam's economics. It has relevance to religious ritual, politics, and socio-economic perspectives.

#### **9.1.1 Demand side of the Ramadan market**

During this month, consumptions of various essentials go up usually because Allah has kindly permitted the fasting and hungry human beings to eat as much as they can during the night. The period of such demand ranges from the 1<sup>st</sup> day of Ramadan up to Eid-ul-Fitr ( $30 + 3 = 33$  days), which is approximately 9.31% of the whole lunar year and the most extended religious programme of the Muslims. Demands for a few food items like chickpea/gram, lentils, onion, garlic, turmeric, edible oil, sugar, meat, egg, milk/milk powder, dates, salt, cucumber, eggplant, green chillies, potato, spices, soft drink, various fruits, etc. increase significantly during Ramadan. Apart from these, demands for cloth, leather and electronic goods, cosmetics, gold, and luxury items also increased during this period. This excess demand and related economic activities during holy Ramadan are known, confirmed, effective and rising, especially for Muslims, because this religious ritual is eternal.

#### **9.1.2 Supply side of Ramadan market**

The supply of goods for Ramadan comes from domestic production and import. The Government Departments and private entrepreneurs are engaged in augmenting supplies of essential commodities in Bangladesh for Ramadan. Stabilisation of prices depends on the stable supplies of the Commodities or products. However, the destabilisation of the supply of commodities caused by unscrupulous traders

affects the consumers; among them, the worst sufferers are the country's poor people, i.e. limited income and low-income people. The institutionalisation of the sub-sector can stabilise supplies of the commodities or products during one month of Ramadan. Stable supplies of essential commodities at fair prices can make friendships among the country's people.

### **9.1.3 Intervention by the law enforcement agency**

Law enforcement agencies occasionally intervene in the market and foil attempts of wholesalers to sell goods at a higher price.

### **9.1.4 The size of the economy of Ramadan in Bangladesh**

Ramadan disperses the spectrum among Muslims regarding its socio-economic impacts on their lives and well-being. During Ramadan, people spend vast amounts of money to fulfil their basic needs of food, cloth and other consumer goods that enhance their living standards. This effective demand boosts the domestic economy through related investments and employment creation. It also encourages Muslims to distribute their income through zakat, fitra and charitable that helps the poor escape poverty to some extent. According to various newspaper reports, the worth of the Ramadan economy is more than Tk.100,000 crores, equivalent to US\$ 11.76 billion (1 US\$ = Tk.85) per year in Bangladesh.

This year Ramadan arrives among us in such a situation when many people have lost their jobs due to quarantine and human distancing imposed by the authority to stop the spreading of Covid-19. The domestic production of Eid-related commodities can be strengthened in full swing to stabilise supplies and prices and retain and create jobs. The fund earmarked for zakat, fitra and charitable can be provided to the jobless as humanitarian assistance to keep alive of the working class during the pandemic so that they can survive and start careers again.

## **10. Economy of Eid-ul-Azha**

Eid-ul-Azha is the biggest sacrificial religious festival observed by Muslims who sacrifice selected animals from the 10<sup>th</sup> to 12<sup>th</sup> of Dhul Hijjah (three days and two nights) to honour the Prophet Hazrat Ibrahim (PBUH) and distribute at least  $\frac{1}{3}$  of meat and skin to the entitled poor. The size of the Eid-ul-Azha economy in Bangladesh is growing every year with the increase of the GDP and affects the lives and well-being of all Muslims through forwarding and backward linkages.

### **10.2.1 Demand side of the Eid-ul-Azha economy**

Presently more than 100 thousand animals like cattle, goats, sheep, camels and others are sacrificed during Eid-ul-Azha. It creates ancillary demands for knives and machetes, spices, refrigerators, freezers and cooking, furniture, clothes, foot wears and other commodities, transportation, tourism and holidays.

### 10.2.2 Supply side of Eid-ul-Azha economy

The economic activities begin with the raising of animals, feed industry, animal health, transportation of animals to the marketplace for sale, manufacturing and shunning of knife and machete, sacrificial function, meat preparation, collection, processing and storage of skins and hides create tremendous full-time and part-time employment opportunities. Eid-ul-Azha allows the poor to procure meat that fulfils their nutrient requirement to some extent. It also supplies more than 50% of raw materials for the industries like leather, leather goods and hides.

### 10.2.3 Size of Eid-ul-Azha economy in Bangladesh

Eid-ul-Azha demand and supply-related activities involve colossal demand and supply of money in the market that increase cash flow in the economy. The monetary involvement of Eid-ul-Azha is stated in Table 1. The economic activities involving buying, selling and slaughtering animals, processing, distribution, preserving, cooking and consuming meat and ancillary socio-economic functions require financial transactions of approximately Tk.39,480 crores, equivalent to US\$ 4.64 billion per year.

The total size of the Eid festival economy is worth US\$ 16.40 (11.76 + 4.64) billion per year. These Islamic festivals have an inbuilt mechanism of providing humanitarian assistance in the forms of Zakat, Fitra, Charitable, distribution of meat and skin of the sacrificed animals to the poor, which helps to escape poverty to some extent. The size of the Eid festival economy is about 5.73% of Bangladesh's GDP (US\$ 286 billion in 2019).

Table 1: Estimated monetary involvement of Eid-ul-Azha

Sl. No.	Items	Number/ Quantity	Rate in Taka	Money in Crore Taka	Money in US\$ (million)
1	Cattle sales	4,000,000	55,000	22,000	2,588.24
2	Feed for cattle	4,000,000	500	200	23.53
3	Goats and others sales	6,500,000	8,000	5,200	611.76
4	Feed for goat and others	6,500,000	200	130	15.29
5	Garment and miscellaneous	-	-	5,000	588.24
6	Electronics (refrigerators, freezers and cooking)	-	-	2500	294.12
7	Transport	-	-	2,000	235.29
8	Spices	-	-	1500	176.47
9	Slaughtering tools	-	-	500	58.82
10	Raw hide and skin	-	-	450	52.94
11				39,480	4,644.70
				Total	US\$ 4.64 billion

## 11. Policy Recommendations

- **Panic and fear about Covid-19:** The people should not panic about Covid-19. Because of panic and anxiety about Covid-19 caused an overall lockdown at home and abroad several times that resulted in a slowdown in production, loss of exports, loss of jobs, incomes and livelihoods and disruption of supply chains and markets.
- **Travel ban and quarantine:** The Islamic teachings and ways of life have been proved to be a practical and ultimate approach to facing any pandemic. Travel ban and quarantine are two main instruments for minimising impacts and ending the pandemic. Unfortunately, Covid-19 has a chance to spread worldwide from Wuhan due to a lack of travel ban and quarantine.
- **The domestic economy has to be cared for by stabilising supplies, prices and growth:** Accelerating the growth of the domestic economy through the production of core food items, textiles, garments, leather and leather goods, and all other local economic activities will help to stabilise supplies, prices and growth, retain and generate employment and mitigate the loss of export earnings and remittances.
- **Covid-19 medicines and Covid-19 vaccines to end pandemic:** In-country research and collaboration with international communities to develop, manufacture and deploy safe and effective Covid-19 medicines and Covid-19 vaccines are urgently needed to complete the pandemic.
- **Exploring potentials of the festival economy as social security to face Covid-19:** Potentials of the festival economy are to be explored in full swing for generating more employment and income as well as providing Zakat, Fitra and charitable to redress the sufferings of the poor.
- **Population census, household survey and agricultural survey:** Population census, household survey and agricultural survey are urgently needed to get up-to-date data to launch appropriate programmes to enhance the production of domestic goods and services and adequately distribute food to minimise food insecurity.
- **External trade and remittances:** Loss of external flow of incomes from export earnings and remittances have to be measured to compensate for the loss as much as we can by accelerating the growth of the domestic economy. Thus, the total impacts of CV-19 on GDP can be reduced to a great extent.
- **Guard against smuggling and syndicates:** We must guard so that no one can snatch our opportunities and prosperities through smuggling or unhealthy competition by unscrupulous syndicates and traders.



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# Covid-19 Pandemic, 4<sup>th</sup> Industrial Revolution and Human Capital Development

Md. Anisur Rahman\*

## Abstract

*The covid-19 pandemic hit global sustainability very hard. It slows down worldwide growth and affects health, environment, education, business, and manufacturing worldwide. Global inequality is increasing. The world was under lockdown fully or partially for several months to fight against the coronavirus from the beginning of the declaration of the covid-19 pandemic. During the lockdown, the world mainly depended on different technologies for global mobility and control pandemics, mostly digital technologies. This technological advancement will play a revolutionary role in all the affected areas' sectors during and after the covid-19 pandemic. Where the 4<sup>th</sup> industrial revolution will run faster to minimise the global losses. The countries are not yet comprised of the 4th industrial revolutionary system, and technologies will require faster adoption of the industry 4.0 standard and technologies to add value to the global value chain. Skill development for the unskilled or low-skilled workforces and the development of the innovative ideas for the new products and services for business and manufacturing will be the key policy issue of the world to adjust with the industry 4.0 standard specification, work and environment to achieve the goals of SDG 2030.*

**Keywords** *Human Capital · Technology · 4IR and Skill*

## 1. Introduction

There are several types of criticism about Covid-19: A bioweapon, a conspiracy theory, an environmental effect, and an economic war. Covid-19 has already become a scientific revolution, a substantial paradigm shift that affects the global value chain. It will ultimately change the international socio-economic scenario.

Covid-19 was started in China and affected the entire world. On 31 December 2019, The World Health Organization officially informed us about the coronavirus

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infection detected in Wuhan, China. From 1 January 2020, Wuhan was closed for environmental sanitation and disinfection. The WHO declared the outbreak a global public health emergency on 30 January 2020. The WHO declared this outbreak as a pandemic on 11 March 2020.

The Covid-19 pandemic was spreading very fast over the world. The countries of the world were fully or partially lockdown. The economic damage represents the most extensive economic shock that the world has not experienced before. According to the Global Economic Prospects, a 5.2% per cent contraction in global GDP in 2020 is the deepest global recession. The recessions triggered by the pandemic are expected through lower investment, an erosion of human capital through loss of work, and fragmentation of international trade and supply linkages.

## **2. Methodology**

Due to the Covid-19 pandemic, the world was on lockdown, and physical communication for data collection and information was critical for most organisations. The global conferences, seminars, workshops, and demonstrations during the lockdown were held virtually. The paper is based on observational methodology via the internet. The observations were on the global conferences, seminars, workshops, and demonstrations.

## **3. Impact of Covid-19 pandemic and Macro Economy**

The Covid-19 pandemic is a public health emergency affecting the global socio-economy. The virus has spread to virtually every corner of the globe. It prompted governments to impose quarantines, travel restrictions, and other measures to minimise risks. These risk mitigation actions have caused a significant shock to the global economy in today's highly connected and globalised world.

Covid-19 has disrupted the Chinese economy and is spreading globally. The evolution of the disease and its economic impacts are highly uncertain, making the formulation of appropriate macroeconomic policy responses challenging. World Bank and IMF estimate that the central government debt will increase on average by 4.6%, and the unemployment in the pre-Covid period was 6.9%. Until April 2020, 6.8% was increased to 9.5% by April 2021, decreasing at a significantly slower pace.

### **National Income**

National income is measured by the output method by calculating the total value of goods and services produced during the year.

The virus that started in China is now delivering a significant global shock. Like in most other nations, the outbreak of the Covid-19 pandemic is an unprecedented shock to Bangladesh's economy.

## GDP Growth

Most countries measure GNP or GDP at current (market) prices. When an economy grows, that is for enough wealth and new job opportunities.

GDP growth is measured by the percentage change in gross domestic product or the value of goods and services produced within a certain period.

The IMF estimates that the global economy will shrink by 4.4% in 2020. This decline is the worst since the Great Depression of the 1930s.

Figure 1: Growth Forecast

Year	Global Economy			Advance Economy			Developing Economy		
	2019	2020	2021	2019	2020	2021	2019	2020	2021
Growth	2.9	-4.9	5.4	1.7	-8	4.8	3.7	-3	5.9

**Source:** World Economic Outlook Update June 2020.

Year	Global Economy			Advance Economy			Developing Economy		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
Growth	-3.2	6.0	4.9	-4.6	5.6	4.4	-2.1	6.3	3.2

**Source:** World Economic Outlook Update July 2021.

## Savings

In most advanced economies, there is a large amount of accumulation of household savings. The size and amount of savings accumulated since 2020 can potentially redesign the post-pandemic situation.

At the same time, limited resources and weak institutions constrain the capacity of many low-income and developing governments to support their economies.

Without international cooperation and support for the low-income and underdeveloped countries, development prospects will be negatively affected.

## Investment

Foreign Direct Investment (FDI) flow decreased globally by 35% in 2020. Lockdowns caused by the Covid-19 pandemic slowed down existing investment projects in almost all countries. FDI is an important source of external finance for low-income and developing countries.

The recession caused by the pandemic led national and multinational enterprises to reassess new projects and look for safe new investment opportunities for their risk-adjusted return.

## Gross Capital Formation

The covid-19 pandemic is changing the gross capital formation around the world. The gross addition to the fixed asset for capital formation is transforming. Investors are investing in the new area of opportunities upon assets for safer goods and values.

They are green, human capital, digital, and bio and genetic innovation. Mainly upon the goods and services have the potential to add value with the sustainable value chain.

### **Price**

The amount of money given sale of a specified thing. Price is the quantity of one thing exchanged in barter or sale for another.

The global economic shock of the Covid-19 pandemic has driven most commodity prices down and is expected to result in substantially lower prices over 2020 [The World Bank, April 2020, Commodity Market Outlook].

Crude oil prices fall about 50 per cent between January and March 2020. The decline in crude oil prices resulted in uncertainty in production agreements among the OPEC and other oil producers with the rest of the world.

Overall energy prices, including fossil fuel, natural gas, and coal, are expected to average 40 per cent lower in 2020 but rebound in 2021.

### **Inflation**

Inflation is the rate at which consumer purchase power changes. Consumer spending is one of the most important driving forces for global economic growth. Covid-19 has changed every aspect of our daily lives, and consumer spending is no exception.

During lockdowns caused by the Covid-19 pandemic, industries and shops were closed, production and sales were closed, and people were at home.

In advanced economies, people have the savings to redesign their daily life, and the governments have the power to shape the policy to redesign the post-pandemic recovery.

The current inflationary condition is a mismatch between demand and supply. Easing lockdown quickly brought back demand from consumers who were at home for a long time and were eager to spend. But during the lockdown, shops and industries were closed and did not produce much to meet the present demand. Recently rising oil prices and raw materials have increased the cost of production and transportation, causing inflation. Only debtors can gain from inflation because they repay creditors.

But in the low-income and developing economies, during lockdowns, the people were at home, they expense their savings, took loans with higher interest and had nothing to shape their recovery policy at a higher percentage of the industries and consumers. In these countries, their policy conclusion comes with international support. That international financial support is exchanged by the currencies favouring a small selected group of countries.

## **Government Revenue and Expenditure**

Government Revenues are the financial resources for ensuring the government functions and distributes social goods and services to the nation by spending on government consumption, transfer payment, and interest rate.

## **Money and Credit**

In advanced economies, private funding is growing savings for the economic slowdown. Governments also borrow money quickly as the interest rate is zero or minimum though the GDP debt ratio increases. They don't care because there is no inflation pressure in advanced economies.

But in low-income and developing countries with a weak fiscal policy is very difficult to control inflation.

In a flexible monetary policy response, by expanding the money supply in the economy, lower interest rates on credits can increase the economy's investments.

## **Interest Rate**

Higher interest rates encourage saving and discourage borrowing and spending. The companies then increase their price slowly to increase demand. It reduces inflation. Lower interest rates work oppositely and can help increase inflation if it is too low.

When inflation rise above the expected rate, the central bank increase the interest rate. If inflation drops below the target rate, they might lower interest rates.

In the low-income and developing economies, the purchasing power has become the lower position for both the individuals and the industries. For the economic continuity, a lower interest rate is the most favourable condition for the low-income and developing countries.

## **Capital Market**

The covid-19 pandemic triggered a free fall in share prices. The world is transforming our lives, economies, and businesses' fortunes, which is reflected in the ups and downs of share prices. In this situation, some companies rise at an unprecedented speed, and some fall in the downturn.

Stock, bonds, or other investment products are financial instruments or assets.

Covid-19 changes the traditional mode of capital formation. Green innovation, human capital, digital innovation, bio and genetic innovation. They are mainly intangible assets. Policy to increase investment in the sectors of economies are dealing with intangible assets for capital formation can save the world from the shortage of capital stock. This was the leading cause of growth slowdown before the Covid-19 pandemic in the advanced economies. Covid-19 losses the global growth and is to be survived, where intangible assets can introduce new production and capital can help stabilise the capital market.

### **Import and Export**

The Covid-19 pandemic has drastically affected lives and livelihoods. It has disrupted economic activities throughout the world. World merchandise trade flows decreased by 7% in 2020.

The pandemic delivered a shock from both the supply and demand sides. During the lockdown, the domestic demand from each country has decreased for maximum commodities resulting in a decrease in imports. It ultimately reduces the export from the partner countries of business.

### **Balance of Payment**

Covid-19 has resulted in a significant increase in external debt in developed and developing countries. The covid-19 pandemic has negatively affected the global supply chains and economic integration in the world economy. Its consequences have been evident in the slowdown in the economies of developed and developing countries and the decline in foreign trade and investments. It is confirmed by the balance of payments of these countries. Pandemic, declining export earnings, covering the trade deficit could lead to the depletion of foreign reserves.

### **Balance of Trade**

The covid-19 pandemic hit the countries at different times and rates worldwide. Access to global demand and continued trade will be necessary for supporting and sustaining economic recovery.

Global cooperation must keep trade flowing in the current crisis and ensure global recovery. Trade facilitation, government support, and global value chains for essential goods, services, and trade are the primary indicators for recovery.

### **Remittance**

According to the World Bank's Migration and Development Briefing, the Covid-19 pandemic and economic crisis continue to spread, and the amount of money migrant workers send home is projected to decline 14 per cent by 2021 compared to the pre-Covid-19 levels in 2019.

Remittance flow fell by 7 per cent in the low and middle-income countries in 2020 and 7.5 per cent in 2021. The primary cause of the decline in remittances is weak economic growth and employment levels in migrant-hosting countries, weak oil prices, and depreciation of the currencies of remittance-source countries against the US dollar.

### **Labour Market-Employment-Wage**

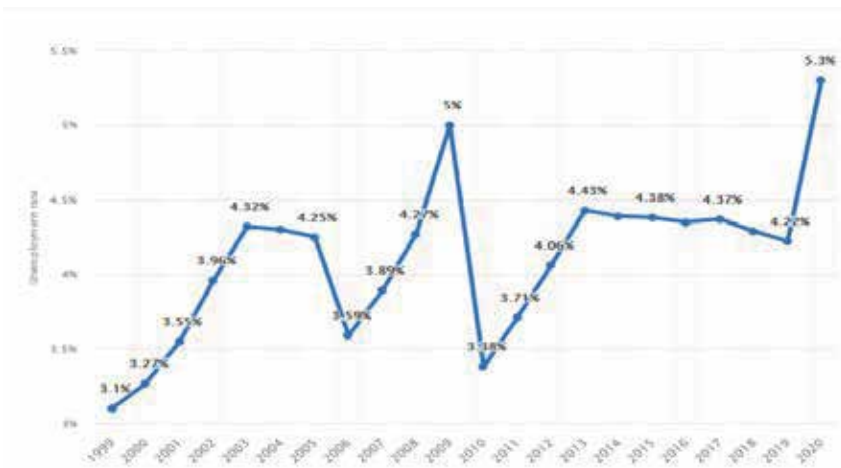
A labour market in an economy functions with the demand and supply of labour. Employers compete to hire the best in the labour market, and the workers compete for the best satisfying job.

Just as in any market, the price of labour, the wage rate, is determined by supply and demand. When labour supply increases, the equilibrium price falls, and when the demand for labour increases, the equilibrium price rises.

A wage increase is a higher income; a higher wage induces a greater labour supply.

The ongoing Covid-19 pandemic has created an unprecedented crisis in Bangladesh that risks erasing the substantial progress in household incomes and poverty reduction achieved during the past decades.

Figure 2: Unemployment Rate in Bangladesh



Source: Statista 2021

The Covid-19 crisis is expected to wipe out 6.7 per cent of working hours globally in the second quarter of 2020, equivalent to 195 million full-time workers [ILO press release 7 April 2020].

The eventual increase in global unemployment between 2021 and 2022 will depend substantially on future developments and policy measures. Delegates from 181 countries representing the Governments, workers and employers at the International Labor Conference in Geneva adopted a Global Call of Action for a human-centred Covid-19 recovery that prioritises creating decent jobs for all and addresses the inequalities.

### Foreign Currency Reserve

Foreign exchange is the conversion of one country's currency into another. The value of any particular currency is determined by market forces related to trade, investment, tourism, and geopolitical risk.

In Bangladesh, Foreign Exchange Reserves are the foreign assets held or controlled by the central bank of Bangladesh. The reserves are made of gold or a



specific currency. They can also be special drawing rights and marketable securities denominated in foreign currencies like treasury bills, government bonds, corporate bonds, equities, and foreign currency loans.

Foreign Exchange Reserves in Bangladesh decreased to 46199.80 USD Million in September from 48060 USD Million in August 2021 [Source: Bangladesh Bank].

### **Exchange Rate**

Exchange rates play a vital role in a country's level of trade, which is critical to most every free market economy in the world. The currency exchange rate is one of the most vital determinants of a country's relative level of economic strength.

A higher-valued currency makes a country's imports less expensive and exports more expensive in foreign markets. A lower-valued currency makes a country's imports more expensive and exports cheaper in foreign markets. A higher exchange rate can worsen a country's balance of trade, while a lower exchange rate can be expected to improve it.

### **Rise of Digital Currency in the International Monetary System**

There is a rule in international monetary policy to fix the exchange rate and equalise the balance of payment and international currency. The present monetary policy of the world is not a policy where developing and developed countries are participating in fixing the policy in terms of the exchange rate. The countries' currencies are held in the international financial centres like the EU, USA, UK, Switzerland and Japan, and they decide the exchange rate.

The global gold market is an influential element in the developing countries, mainly India and China, because they are a big recipient of gold. The dollar's role in the international monetary system has decreased but still plays an important role. EURO has already taken a secondary position after the US dollar. Chinese currencies Renminbi has already entered the global market as the 5<sup>th</sup> global currency, and they have a complete transactions around the world for their business and trade.

The international monetary system is a set of internationally agreed rules, conventions and supporting institutions that facilitate international trade, cross-border investment and generally the reallocation of capital between nation-states. It should provide means of payment acceptable to buyers and sellers of different nationalities, including deferred payment.

The interest in CBDCs (Central Bank Digital Currencies) arises from developments that started with the 2008 financial crisis, the appearance of cryptocurrencies and the rise of digital transactions, leading to the decreasing role of physical notes and cash. The situation is again coming to us during the Covid-19 pandemic, and it will remain in the world for its acceptability.

Digital currency is a payment method which exists only in electronic form and is not tangible. Digital currency can be transferred between entities or users with the help of technology like computers, smartphones and the internet.

Cryptocurrency is a digital currency in which encryption techniques regulate the generation of currency units and verify the transfer of funds, operating independently of a Central Bank.

IMF introduced international currency in 1967 as SDRs (Special Drawing Rights). Is non-cash money only in accounting entry in a bank account? Central Bank and certain financial institutions are only allowed to use SDRs. SDR is used to country obligations under the current balance of payment and during the comparison of exchange rates in international settlement.

In 2019, After Facebook's proposal to create Libra, a global digital currency based on blockchain technology. Central banks are actively discussing issuing digital national currencies. IMF is also debating the digital version of SDRs.

Libra is a permission blockchain digital currency proposed by the American social media company Facebook, Inc. China is also trying to launch its official digital currencies.

Cryptocurrency is an international digital currency that has become SDR. Cryptocurrency increases reserves outside the central bank because of its fast and easy operability. Crypto assets are increasing the reserves. Crypto assets are intangible digital assets. They range from bonds, stocks & digital currencies to intellectual property. Trade secrets, training material and licenses are also intangible assets.

Currencies are coming as the new international currency for payment and create value of the assets as an alternative to US dollars. Digital currencies are coming as SDRs and national digital currencies. The digitalisation of the currencies is changing the nature of payment and creating value and alternative reserves. The countries will participate in the transaction of these currencies regionally or globally will increase the value of these currencies. There will be possibilities for the developing nations to participate in international monetary policy because the role of developing countries in the global economy is growing. The international monetary policy will gain stability through the participation of the developing and developed countries.

#### **4. Covid-19 and Human Healthy Longevity**

Global life expectancy at birth in 2016 was 72.0 years (74.2 years for females and 69.8 years for males). Women live longer than men all around the world. The gap in life expectancy between the sexes was 4.3 years in 2000 and had remained almost the same by 2016 (4.4). Global average life expectancy increased by 5.5 years between 2000 and 2016.

In 2020, life expectancy at birth for Bangladesh was 72.87 years. In Bangladesh, the life expectancy at birth has increased from 46.59 years in 1971 to 72.87 years in 2020, growing at an average annual rate of 0.92%.

### **Mortality and Morbidity**

Mortality and morbidity describe the frequency and severity of specific illnesses or conditions.

The Covid-19 pandemic and the social distancing measures used to contain the spread of the virus have altered everyday life around the world. It increases mortality and morbidity.

Mortality is another term for death. A mortality rate is the number of deaths due to a disease divided by the population.

Morbidities are not deaths but illnesses of a specific disease. The morbidity rate is a measure used to determine morbidity in a population.

The world is not still having a clear picture of the global mortality and morbidity due to the coronavirus. The people who died over the globe during the Covid-19 pandemic were not from coronavirus but other respiratory syndromes. There was an inefficient data management system to give a clear picture of mortality and morbidity. The world was unclear about which respiratory syndrome is more dangerous than the coronavirus and which is less risky.

### **Health and Human Capital**

Health is a kind of human capital and an input to producing other forms of human capital like education, training and skill. Unhealthy human capital and the inability to invest in health development resulting in worse health implies lower income.

Only a healthy person can work efficiently and with full potential. A healthy person can work more effectively. A healthy person can work in a productive way, and in this way, it can contribute better to the development of the country's economy.

Manufactured capital may depreciate over time, but human capital is not consumed in producing goods and services.

## **5. Covid-19 and Human Knowledge**

The world economy is transforming toward a knowledge-based economy, and society is transforming toward a knowledge-based society. The global socio-economic structure is changing very fast based on knowledge.

This transformation of the world is not always maintaining a sustainable standard. Education, training and skill development can ensure increased productivity and sustainability.

Knowledge promotes protective behaviours by buffering the adverse effects of pessimistic illness expectations. Essential workers are likelier to have low levels of expertise with strong illness expectations, suggesting that educational policies may be warranted.

### **Education**

Knowledge through education promotes protective behaviours by buffering the adverse effects of pessimistic illness expectations. Knowledge-based economies need innovations and ethics on innovation for sustainable production and service to increase value and competitiveness. Continuous research in educational institutions is critical in directing a nation towards sustainable innovation.

Technological inclusion in the institution has opened many new educational development doors. Still, the low-income and developing nations cannot take advantage due to policy measures and finances. During Covid-19, the developed nations achieved more than 83% of educational facilities, but low-income and developing countries were only less than 23%.

### **Training**

Training for teachers, trainers and employees are essential for developing related instruction capability. Covid-19 changed the traditional training mode due to the rapid adoption of automation, digitalisation and robotisation in government, health, academic, business and manufacturing sectors.

### **Skill Development**

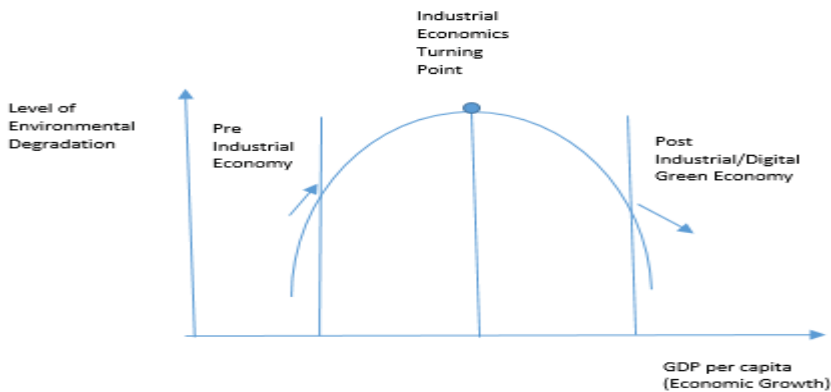
Skill development is an essential part of a nation for the development in all areas of its activities. The covid-19 pandemic has proved the potentiality of disruptive technologies in global socio-economic activities. The world is adopting these technologies very fast.

Bangladesh is a middle-income country already in a good position for its growth. The government is adopting disruptive technologies. As fast as it can develop its national skill to operate and govern these technological adoptions in the right direction, it will contribute more to the global economy by reducing global growth slowdown.

## **6. Covid-19 and the Rise of the 4<sup>th</sup> Industrial Revolution**

The global pandemic caused by the coronavirus has disrupted people's lives. Covid-19 is a health issue and affects economic matters. This health and economic issue accelerated the implantation process of the fourth industrial revolution. 4th industrial revolution is a Digital, Physical and Biological combination called the cyber-physical system of manufacturing and business. It is a related business and manufacturing system nationally and globally by using disruptive technologies. The technology associated with 4IR offers conditions for humans to have developed in various segments of their lives.

Figure 3: U-Shaped curve for economic growth and the environment



The U-shaped curve shows the relationship between economic growth and the environment up to a certain point when economic growth worsens the environment. Still, after that, the move to a post-industrial economy moves towards a better environment.

But, the world has suffered a growth slowdown for the past several years. Moreover, the Covid-19 pandemic affects manufacturing and services worldwide, which turns the global growth almost to the zero level and for some countries, that is negative.

To reach the next normal of the world, there are no alternatives to growing the economy except a faster pace of increased productivity than ever before. An increase in productivity to raise the income of individuals and the country is the first condition to reach the previous level of growth and to minimise the average level of intended development for the world to reduce poverty and inequality.

Industrial production and services will have to run together to achieve GDP growth. But there are the risks of the next pandemic for the global need, and the trend of over-productivity may affect the health and environment are interrelated. The technology associated with 4IR offers conditions for humans to have developed in various segments of their lives.

## 7. Covid-19 and Real Income

The Covid-19 pandemic has had a massive impact on economic activity worldwide. For the recovery from the economic consequences of the pandemic, most governments have used a combination of family income support and credit facilities for firms. Governments also expanded unemployment incentive schemes to stabilise the workers' income and contain the impact of the crisis on consumption and economic inequality.

### **Real income decreases in the low income and developing countries, and the rising poverty level**

But the effectiveness of these policies remains unclear, mainly due to a lack of reliable data and information, corruption in distribution and monitoring and the indicators allowing for tracking economic activity. This limits the ability of policymakers to rapidly adjust their responses in the effort to “flatten the recession curve” after flattening the infection curve.

Real income decreases in low and developing countries and rising poverty levels create inflation. Adjusting the inflation only by the government support without international financial cooperation may take a long delay to reduce inflation created by the loss of real income.

### **Production**

Covid-19 has had enormous impacts on global production and international trade. The covid-19 Pandemic has forced manufacturing companies worldwide to think about their business strategy and operations to ensure the health and safety of their workforce and keep their organisations operating in a rapidly evolving environment.

The global impact of Covid-19 on manufacturing has short and long-term implications. Manufacturers face challenges and look for opportunities for recovery in an uncertain future. The COVID-19 pandemic will transform global production.

### **Distribution**

Covid-19 has had a supply chains effects on both supply and demand. The sudden halt of manufacturing and distribution facilities and people being cooped up in their homes for months have driven up demand for products.

There was also a labour shortage in manufacturing and distribution, and the border was closed. The commercial product distribution was under considerable disturbance.

Health products were distributed by maintaining health measures among the world’s countries to control the pandemic.

### **Changes in the Determinants**

Flattening the recession curve after flattening the infection curve mainly depends upon improving the socio-economic determinants.

Health is an essential social determinant that has changed during Covid-19. Social determinants of health are critical for improving overall health and reducing health disparities often rooted in social and economic disadvantages.

Income is an important social determinant of health. An increase in income can afford medication, a healthy diet, and a good place to live can increase health status.

Technology is an essential macroeconomic determinant that has changed the pattern of the Global Value Chain for increased value, productivity and income.

## **8. Discussion**

Coronavirus first affected China in 2019. China first declared the genome sequence of the coronavirus, and then the world found medicine for temporary medication before the vaccine against the coronavirus by using AI technology.

Before any vaccine against the coronavirus, the world was on lockdown. Communication was dependent on the internet and digital technologies for global mobility and continuity in health, education, business, and governance everywhere.

Then the virus spread worldwide and was declared a Covid-19 pandemic. The virus was detected in the human body by digital technology. Digital technologies were used to disinfect hospitals, homes, and roads. The researchers collect data and information about the disease worldwide through the internet and analyse them on a computer using AI and 3D image processing for the new Vaccine. Then they combine AI, Biotechnology, and Genetic Engineering for a 3D unique image for a vaccine. These technologies reduce the long-term duration of the selection of vaccines. After selecting vaccines, the manufacturers manufacture them with automated and robotic machines.

Covid-19 proved disruptive technologies' potentiality and revolutionary power in business and manufacturing under an interconnected system. 4<sup>th</sup> industrial revolution is a related business and manufacturing process under a digital, biological and physical combination with lower waste and pollution.

## **9. Conclusion**

Covid-19 shows great success in business and manufacturing by using disruptive technologies. It may be an example of the world of disruptive technology in humanity, like environmental protection and food production. The world can use these disruptive technologies in other areas for a better world. This will adopt the 4<sup>th</sup> industrial revolutionary system and technologies where there will be lower waste and pollution in industrial manufacturing.

Adopting the 4<sup>th</sup> industrial revolution will require more outstanding finance in technology and cooperation where the rich countries will have to come first. The international monetary and financial system will require fragmentation through participation in low-income and high-income countries.

Changes in the real income in the low-income and developing countries can create a more extended version of recession in these categories. Human capital development through education, training, and skill development is essential in these countries to adjust to the 4IR specifications.

Adopting new technologies always loses some jobs and creates new job opportunities. There needs the development of national skills in the government, public and private sectors.

The world is transforming toward a knowledge-based economy. Innovation is the critical factor in a knowledge-based economy for capital formation. Adopting disruptive technologies with capital can increase our country and the world's value, productivity, and income. It can help the post-pandemic socio-economic recovery.

Before recovery, the people and the small, medium, and large-scale industries need support from the government for a flexible tax policy, interest rate and lower energy costs to reduce the inflationary gap in our country.



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# A Study on Work-Family Balance and Mental Health During COVID-19: Bangladeshi Employees Perspective

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## Abstract

*The study aimed to measure the impact of work pressure on family balance and the effect of work-family balance on Bangladeshi employees' mental health during COVID19 from an emerging economy perspective. Several 400 data (response rate 50.25%) were collected through simple random sampling. The exploratory factor analysis, confirmatory factor analysis, and structural equation modelling were run to test the proposed research framework with the help of MS Excel 2007, SPSS 22.0, and AMOS 23.0. The findings revealed that work-life has a significant positive impact on family life and that work-life and family life positively impact employees' mental health during the COVID-19 pandemic. The novelty of this research is the Bangladeshi employees' context and the COVID-19 phenomenon.*

**Keywords** COVID-19 · Work-Family Balance · Mental Health · Manufacturing Employees

## 1. Introduction

The global civilization confronted one of its most significant problems in historical remembrance at the commencement of the year 2020: a pandemic of a widely identified coronavirus. This disease, which produces a severe respiratory illness (COVID-19), expanded quickly over the planet, culminating in a worldwide catastrophe that compelled governments to take drastic steps to halt its proliferation (Liu et al., 2020). As a result, social distance (the avoidance of human contact)

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remained a primary goal, closing schools, non-essential stores, and border crossings among countries. In addition, this has already had a significant consequence on the businesses (like manufacturing and service industries) as well. The pandemic has exacerbated the global supply chain disruptions (Ranney et al., 2020). However, in Bangladesh, like the other countries, the manufacturing firms such as garments, agricultural goods, fast-moving consumer goods, and some other manufacturing industries continued their production to active the wheel of the national economy (BetterWork, 2020). In such a situation, manufacturing employees face some troubles

Such balancing pressure may be a potential source of mental health concern during the COVID-19 pandemic (Yucel, 2017).

Work-life and family life are distinct spheres that interact in good and bad ways (Molina, J2021). Furthermore, as earlier researchers have observed, work and family have a mutual relationship (Minnotte et al., 2015; Khan et al., 2018). A person's autonomy over their profession is referred to as work-life balance. To the mutual advantage of the employee, company, and civilization, a balance is established when a person's claim to a fulfilling life inside and outside the job is recognized and acknowledged as the standard (Young, 2018). Overwork leads to a terrible work-family balance, which has negative consequences such as aversion to work, a higher risk of changing employment, discord, lack of physical activity, stress, improper diet, fatigue, sleeplessness, depression, as well as health issues including cancer (Houston, 2005; Abendroth & Den Dulk, 2011). Workloads have a detrimental impact on an employee's health both directly and indirectly (Holland et al., 2019). Employee health is significantly impacted by the stress of sustaining a level of efficiency amid increasing exhaustion over time, along with the greater possibility of meeting other kinds of job stress. Hence, such extended workloads and long working hours may hamper the work-family balance and causes poor mental health (Young, 2018). Based on the discussion, two research questions can arise:

- RQ1.** How does the work-life pressure impact employees' family-life balance during the COVID19 situation?
- RQ2.** How do the work and family pressure impact employees' mental health conditions during the COVID19 situation?

Plenty of earlier research was conducted on work and family life conflict (Scherer & Steiber, 2007; Allen & Finkelstein, 2014); work-life balance on employees' job satisfaction (Haar et al., 2014; Cahill et al., 2015); job commitment (Kim, 2014; Darko-Asumadu et al., 2018); well-being (Hoffmann-Burdzińska & Rutkowska, 2015; Törnquist Agosti et al., 2017); employee engagement (Shankar & Bhatnagar, 2010; Cahill et al., 2015; Iqbal et al., 2017); mental health (Haar et al., 2014; Kotera et al., 2020). However, the fundamental gap of the literature was the Bangladeshi context, and broadly, another research gap was no such research

was observed based on the manufacturing industry context as well as during the COVID19 phenomenon. Hence, the key objectives of the study were to measure the impact of employees' work pressure on family balance and the impact of work-family balance on Bangladeshi employees' mental health during COVID19. The following sections of the study were designed as follows. The second section outlined the theoretical anchoring of the research along with the related review of the literature. The third section contained the methodology of the study. After that, the fourth section explained the analysis and discussion of the research findings, and finally, the last section ended with a conclusion including implications and direction for future research.

## **2. Theoretical Anchoring and Hypothesis Development**

### **2.1 Work and Family Balance (WFB) in COVID-19**

The actual economic consequence of the prolonged COVID-19 issue is yet unknown — and might be years away. Emergency layoffs, interim locks up in the processing of income taxes and VAT, including government-guaranteed financing to businesses, are among the steps adopted to preserve the economy. In so many nations, governments continue to pay compensation. In some circumstances, such endowments are already established; in others, they were created due to wage reductions for top management (Fisher et al., 2020). With minimal resources, families have been compelled to strive to preserve a work and family balance in the face of the COVID-19 outbreak. Both the Work and family life balance has grown increasingly complex, regardless of the circumstances (Adisa et al., 2021). Parkes & Langford (2008) describe work and family as a staff's endeavour toward effectively completing the work and family life duties such that the responsibilities of one domain should not negatively influence the other part of life. WFB is also linked to work flexibility, which refers to employees' ability to choose where, when, and how they work (Cooke et al., 2009). Working hours, workplace atmosphere, workloads, reward & incentive scheme, and leave regulations are among the five pillars of WFB. Employees typically confront several tasks, expectations, and obstacles, resulting in role conflict (Uddin, 2021). The majority of researchers have anticipated a negative work to family relations. However, work may have a beneficial impact on family and can have a favourable impact on work (Aslam et al., 2011; Brauchli et al., 2011; Yucel, 2017; Calderwood et al., 2021). Hence a hypothesis can be developed as follows:

**$H_1$ :** Work-life significantly impacts employees' family lives during the COVID-19 pandemic.

## 2.2 WFB and Mental Health in Organization

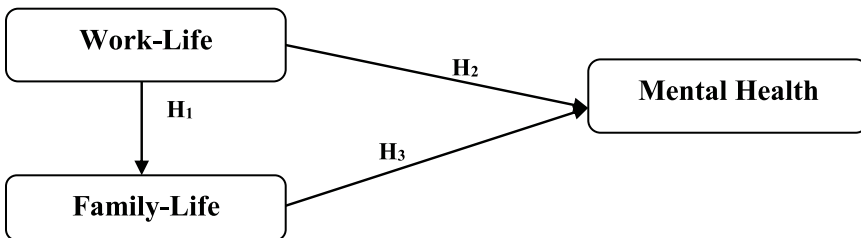
Mental health entails everyone who presents with serious issues making settlements with one another and oneself, rather than being immobilized by internal struggles and social pressures. It also denotes an individual's ability to operate effectively in a group or a society due to their emotions, ideas, and behaviours (Nadinloyi et al., 2013). WFB and mental healed theory explain that persistent external stress such as work pressure and high workloads are likely to impact family happiness by increasing internal stress directly. That might have a superior threat to employees' psychological and physical issues (Bodenmann, 2000; Yucel, 2017). A previous study has examined the impact of work and family conflict on employees' physical and mental health and well-being. Identity theory suggests that work-life and family life conflict would have different effects on employee mental health consequences. This notion is backed up by much evidence from the past (Frone et al., 1996; Casper et al., 2011; Madsen & Hammond, 2013). Based on the discussion, two different hypotheses can also be developed:

$H_2$ : Work-life significantly impacts employees' mental health during the COVID-19 pandemic.

$H_3$ : Family life significantly impacts employees' family life during the COVID-19 pandemic.

The following figure 1 depicts the proposed theoretical model for this particular research.

Figure 1: The proposed theoretical model



Source: Authors

## 3. Methodology

The study was quantitative, and data was collected from manufacturing employees during the COVID-19 period in Bangladesh. A structured questionnaire was developed based on the literature survey and divided into two parts. The initial part

contained demographic information, and the second part had measure items of the model. A five-point Likert scale was developed where 1 denoted strongly disagree and 5 denoted strongly agree (Hossain & Khan, 2021). The study picked 20 factors under three variables: work-life, family-life, and mental health (Brauchli et al., 2011; Yucel, 2017; Calderwood et al., 2021). Some 400 respondents were targeted through simple random sampling techniques with the help of social media platforms to collect the necessary data due to pandemic situations (Olken & Rotem, 1986). The sample was determined based on the Raosoft calculator (<http://www.raosoft.com/sampleize.html>). The reason behind the sample selection was unknown, and the large population size (Iacobucci, 2010). However, the study area was selected as Dhaka city due to the capital city of Bangladesh and the large gathering of the targeted population (Mottaleb et al., 2020). The structured questionnaire was designed through Google Docs and distributed via Facebook messenger, Email, WhatsApp, and IMO (Newman et al., 2021). After collecting the data, only 201 data (50.25% response rate) were found satisfactory to explore the research. The refined data were processed through the MS Excel (V, 2007), SPSS (V, 22), and SPSS AMOS (V, 23) software. An exploratory factors analysis (EFA), confirmatory factor analysis (CFA), and structural equation modelling (SEM) were tested to run and validate the proposed model (Khan et al., 2021).

## 4. Analysis and Discussion

### 4.1 Demographic information

Table 1 depicts the summary of demographic information of the survey participants. Most respondents were male (67.6%) and female (29.4%). After that, most of the participants were found in junior and middle levels; as the literature supports, most of the technical and front-line jobs were done by those two levels (Griffin, 2021).

*Table 1: Respondent's Demographic Information Summary*

Variables	Category	Frequency (n = 201)	Percentage (%)	Cumulative per cent
Gender	Male	142	67.6	67.6
	Female	59	29.4	100.0
Hierarchy	Junior Level	101	50.2	50.2
	Middle Level	79	39.3	89.5
	Top Level	21	10.4	100.0
Education	Up to HSC	57	28.4	28.4
	Bachelor degree	37	18.4	46.8
	Master and above	107	53.2	100.0

**Source:** Author's calculation



The study calculated that 50.2% were junior or bottom level, and 39.3% were middle-level employees. Nevertheless, the study also captured little data from the top-level (10.4%) to understand the indisputable fact. Regarding education level, 53.2% of the employees had a master's level, and 18.4% had a bachelor's level. However, 28.4% of the respondents had up to higher secondary level or below education standard.

#### 4.2 Exploratory factor analysis (EFA) and Confirmatory factor analysis (CFA)

The study initially tested the EFA to identify the construct validity to develop the proposed model. The EFA was run with varimax rotation, and only 13 items were found suitable with good factors loading of above 0.60 among the selected 20 items for the proposed model (Hair et al., 2010). Those 13 items contained three distinct factors: employees' work life, family life, and mental health (Chen & Paulraj, 2004). The EFA explained 75.859% of the variance. To confirm the model, the study tested CFA and all the factors generated from EFA were retained with a good factors loading of above 0.60.

Table 2: CFA and SEM model fit summary

$\chi^2$	df	Sig.	$\chi^2/df$	NFI	CFI	AGFI	GFI	TLI	RMSEA
82.912	59	.022	1.405	.945	.983	.879	.921	.978	.052

Source: Authors' SPSS AMOS output

The model summary (see Table 2) explained that the entire model fit indicators such as  $\chi^2/df$ , NFI, CFI, AGFI, GFI, TLI, and RMSEA were passed the threshold level suggested and applied by (Hair et al., 2010; Khan et al., 2019; Rana et al., 2020). Table 3 illustrates the entire EFA and CFA analysis output summary, including the item codes, factor loading, Composite reliability, Cronbach's alpha, Eigenvalue, and Variance explained (%).

Table 3: Summary of EFA and CFA Outcomes

Variables	Item Code	EFA			CFA		
		Factor loading	Eigenvalue	Variance explained (%)	$\alpha$	Factor loading	CR
Work Life	A-1	.906	4.721	36.313	0.931	.990	0.956
	A-2	.862				.760	
	A-3	.923				.920	
	A-4	.870				.830	
	A-5	.840				.790	

Variables	Item Code	EFA			CFA		
		Factor loading	Eigenvalue	Variance explained (%)	$\alpha$	Factor loading	CR
Family Life	A-11	.908	3.089	23.759	0.884	.870	0.906
	A-12	.872				.860	
	A-13	.838				.800	
	A-14	.789				.720	
Mental Health	B-1	.800	2.205	16.961	0.875	.760	0.923
	B-2	.917				.950	
	B-3	.872				.850	
	B-4	.812				.700	

**Note:** Composite reliability = CR; Cronbach’s alpha =  $\alpha$   
**Source:** Authors

### 4.3 Model Validation through Structural Equation Modeling (SEM) and Discussion

Table 4 summarizes the proposed model result, and Figure 2 depicts the standardized route coefficients for the SEM output by SPSS (AMOS).

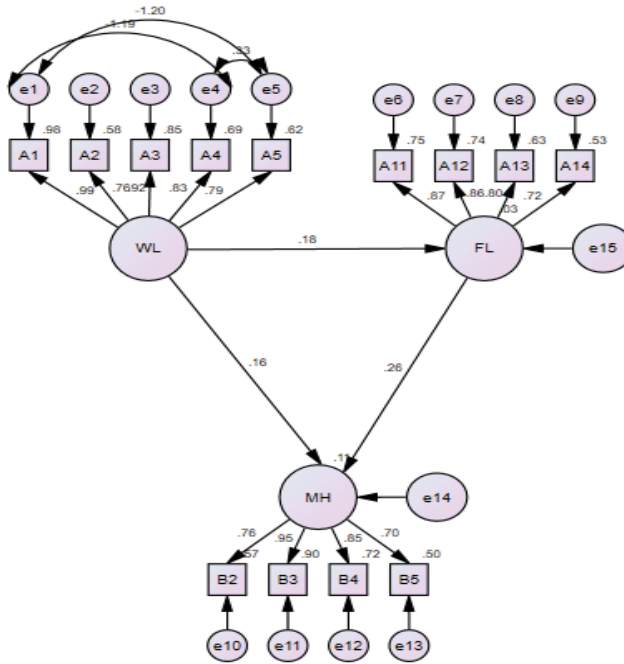
*Table 4: Hypotheses testing with Result (SEM)*

Relationship	Coefficient	p-value	Results
H <sub>1</sub> : Work-life balance has a positive impact on family-life balance	0.123	.029	Supported
H <sub>2</sub> : Work-life balance has a positive impact on mental health	0.151	.049	Supported
H <sub>3</sub> : Family-life balance has a positive impact on mental health	0.368	.003	Supported

**Note:** Parameter estimation significant at  $p < 0.05$   
**Source:** Author’s

In H<sub>1</sub>, the study result demonstrated that work-life had a significant positive impact on employees’ family life during the COVID-19 pandemic. That means that during the COVID-19 period manufacturing employees believed that if they maintained a good quality of work-life, they felt mentally sound and vice-versa. The study outcomes supported the earlier study (Aslam et al., 2011; Brauchli et al., 2011; Yucel, 2017; Calderwood et al., 2021). This particular outcome strongly supported that both the employees and the organization must make some strategies to manage work and family life for mutual interest (Hilbrecht & Lero, 2014; Khan et al., 2018).

Figure 2: SEM Flowchart of the Proposed Model



Source: Authors’ SPSS AMOS output.

In  $H_2$  the hypothesis was developed as work-life significantly impacts employees’ mental health during the COVID-19 pandemic. The AMOS finding also supported this relationship. The outcome revealed that employees’ work-life and mental health during COVID-19 were positively related. If the employee- led a high-quality work-life, they were enjoying sound mental health and vice-versa during the pandemic. This particular outcome also matched the earlier results (Huxley et al., 2015; Ruppner et al., 2019). Based on this outcome, the organization may craft new HR strategies for the mental well-being of its employees.

The  $H_3$  was developed as Family-life significantly impacts employees’ family life during the COVID-19 pandemic. Once again, the study outcome revealed a significant positive relationship between these two variables. That means if the employee enjoyed high-quality family life, they had sound mental health and vice-versa during the pandemic. The earlier outcomes also supported this particular outcome (Schulz & Sherwood, 2008; Panelo, 2010). Hence, such an outcome urged the manufacturing employees to learn and adapt to family-life pressure to improve their mental well-being. Organizations have less chance to interfere with such issues.

## **5. Conclusion**

The study concludes with limitations, implications, and future research directions. The fundamental limitations of the study were data collection challenges. During the pandemic, social distancing was a must, and many of the employees were not those much technology-oriented. Another critical issue was research funding. Due to such constraints, the study could not go for mass data collection across the country. However, owing to such limitations, the research has some implications. In the case of theoretical perspectives, the work-life, family life, and mental health can be categorized under the organizational behaviour, employee psychology, and occupational health and safety theories under the management and human resource management (HRM) domain. Hence, such research outcomes will be vivid the earlier related outcomes (Panelo, 2010; Hilbrecht & Lero, 2014; Ruppanner et al., 2019). In addition, the work-life balance theory can be connected with manufacturing employees' mental health and well-being.

On the other hand, the study's practical implications could be in developing and crafting the HR strategy and policymaking in occupational safety and health as well as employee psychology in a natural catastrophe like the COVID-19 pandemic (World Health Organization, 2020). Additionally, employees may face stress from two potential sources; organization and individual (Griffin, 2021). In case of family life pressure, the employee will be able to address and solve such issues for their betterment in family and work life. Future research can develop variables such as job satisfaction, intention to stay, and organizational commitment. The relationship between WFB and job satisfaction, intention to stay and organizational commitment will be tested with meditation and moderation of mental health conditions. Such research can be conducted on service employees apart from the manufacturing ones. Few demographic variables such as gender, age, and marital status can be applied as a mediating effect to the proposed and validated research model.

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## Effects of Covid-19 on Tertiary Education Sector in Bangladesh

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### Abstract

*The paper discusses the effects of the recent pandemic on the 'Tertiary Education Sector in Bangladesh'. The researcher follows a systematic review of the literature that the other authors provide. Both qualitative and quantitative data are gathered for the study. The research framework has divided these effects into some common categories. These categories are Psychological effect, Institutional effect, Pedagogical effect, Socio-economic effect, Labour market effect, Migratory effect on students participating in international higher education, and Academic effect in terms of time value. The level of the research is inductive; that is, a tentative hypothesis is derived from observing theories and quantitative data provided by different authors based on systematic review, contrast and comparison. Finally, the hypothesis states if these effects of the pandemic can be categorised in the mentioned order or not. All the data which is used in the paper is secondary data. In the final part of the paper, the researchers identify the common effects identified from different reviews and prescribe a set of recommendations to overcome the negative impacts. The researcher intends to continue to work on the current categorisation of the effects by conducting primary research and a meta-analysis of the secondary data soon.*

**Keywords** Psychological · Institutional · Migratory · Socio-economic · Structural · Labour market · Pedagogical · E-learning · Digital literacy · Academic · Time value · Opportunity cost

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## 1. Introduction

The recent pandemic caused severe economic damage at the national and global levels. Since the first case was detected on 31<sup>st</sup> December at Wuhan in China, the rampant never left ultimately, and the odds were not beaten all at once. The effect of these widely spread diseases eroded many parts of human lives gradually and daily. The economy was not the only part of these ongoing damages. The education sector also suffered a considerable loss. According to Ela, Sohel, Shovo, Khan, Jahan, Hossain and Islam (2021), the Bangladeshi government confirmed this deadly pandemic on 26th March 2020. The academic life of the tertiary graduates started taking a severe blow. Based on Ibid (2021), the educational institutes were already closed a week earlier. However, the mass spread of the virus among individual citizens evoked an intense panic at almost every campus. Due to the growing fear, educational institutes inevitably became a part of an extended lockdown. According to the author of the current research the whole tertiary education sector was affected on the following dimensions: Psychological barriers (mental breakdown among the students), institutional damage (a dip in enrolment leading to organisational loss), economic sufferings and hardship (death, loss of income and occupation among many low and middle class family causing future financial constraints in funding higher education), daunting collapse in the labour market (negative structural changes within the firms, high job turnover, sudden shift to digital format of doing business and unexpected migration from urban to rural areas led to endless sufferings for many graduates in seeking employment), immense loss to students of the local communities who are studying abroad (Session loss and financial burdens) and finally, unprecedented situation among the teachers (as almost all of them experienced a tedious task of adjusting their pedagogical method to a phenomenal digital layout). The author's primary purpose in writing the current paper is to conduct a systematic literature review on these dimensions and build a solid foundation for a deep empirical analysis of the above issues. However, even though the current research is vastly qualitative, few numerical data are also added to support the literary evidence. The authors found that almost every researcher focuses on the psychological and pedagogical effects. The current paper will prioritise economic effects as one of the primary objectives of this investigation. However, all of the above effects are discussed sequentially, and brief literature is provided in each section to support the author's analysis of the supporting documents.

## 2. Background of the Study

Corona pandemic shifted the basic academic structure of the tertiary education sector to a digital platform that led to many difficulties such as lack of availability or access to electronic devices for students from low or low-middle class families, slow speed, high cost and limited internet access, technical difficulties for lack of user expertise and mental exhaustion (Dutta and Smita, 2020). Evidence from

Mahmud, Dasgupta, Gupta, Hassan, Kazi and Kabir (2021) support this above view. Mamun, Hosen, Hasan, Jubayar, Rahman, Maliha, Sarker, Kabir, Jyoti, Kaggwa and Sikder (2021), the pandemic left many students mentally shackled. Ibid (2021) also believes that it led to strange suicide and psychological breakdown events. Shahriar, Arafat, Sultana, Akter, Khan, Nur and Khan (2021), who emphasised the psychological stagnation among private university students, clearly supports this view. Reviewing the above literature, the authors may confirm the pandemic's adverse psychological effects on the tertiary students. However, some authors have focused on some unconventional issues rather than exploring the traditional effects. Kabir, Nasrullah, Hasan and Ahmed conducted a profound study on the upbringing solution of e-learning and its mass implication as a pedagogical tool revolutionised due to the pandemic. These authors focused on a brief empirical study on the independent predictors of e-learning efficiencies and readiness among sample students who went through the unexpected time of the pandemic lockdown.

Evidence from Mahmud, Dasgupta, Gupta, Hassan, Kazi and Kabir (2021); Muller, Goh, Lim and Gao (2020) raised questions about the same issues. Evaluating this literature, the authors have a solid reason to believe there were both positive and negative effects of pedagogical modifications as the whole education system was transformed into a digital platform. Khan (2020) identified the labour market's tragic struggles due to offsetting many organisations' operational cost effects. As a part of his study, he mentioned the possible mistreatment of fresh graduates in the job market.

Evidence from Tabassum, Jahan and Khan (2021) and ADB (2020) investigations on job postings support this notion. The authors firmly believe that one of the significant effects of this pandemic concerning the tertiary education sector was ongoing negative scenarios for graduate employment in the labour market.

Bhattacharya, Khan, Tabassum and Altaf (2021) reinforced these issues in their paper. World Bank (2021) provided brief evidence on enrolment constraints among university students due to the pandemic. Even though this document only indicates the lack of interest as education buyers, the author has reasonable grounds to suspect that the negative socio-economic impacts of the pandemic are on the horizon.

Shahriar, Arafat, Sultana, Akter, Khan, Nur and Khan (2021) added in their research about social implications due to the transformation of education that focused on the unaffordability of many to adjust to the new digital format based on monetary and technical terms. However, it did not mention anything specifically about the economic hardships of the households that may cast doubt over the fate of many fresh candidates because of financial inability to meet the required expenditure. According to the researchers, it may happen as many people lost their jobs and income from personal business and countless family heads died from the diseases.

Evidence from Emon, Islam and Alif (2020) on parental incapability to access the transformed method of education; further conclusive remarks on the limited living standard of the household heads from the same authors partially support the future prediction of the authors on socio-economic disasters as education may remain more expensive than ever before for a more extended period.

Uddin (2020) believes that the pandemic's effect is long due even after it is gone. Many families will hardly survive, especially from the low or middle-income group and based on the estimates of 'The Household Income Expenditure Survey (HIES)', students from these groups have a higher possibility of experiencing a post-pandemic life lying below the poverty line, which strongly supports the prediction of the researchers. Due to the pandemic, more than 45.0 per cent of such students' families might fall below the poverty line.

Emon, Islam and Alif (2020) discussed the institutional effects in their study during the pandemic. Ibid (2020) mentioned institutes which were literary shutdown.

Shama and Iqbal (n.d.) additionally talked about the lack of required infrastructural facilities for many institutes. Reviewing the above evidence, the authors conclude that institutional effects were visible in many parts of the country.

Finally, Ela, Sohel, Shovo, Khan, Jahan, Hossain and Islam (2021) discussed the academic uncertainties not only in future professional and learning terms but also provided detailed evidence on how the pandemic had a significant negative impact on almost 1.3 billion learners from different level of education sectors which mentioned about 185 universities around the world. It was noticeable that very few local authors highlighted the ongoing financial and academic loss of the major Bangladeshi tertiary student community living abroad to pursue higher degrees. Xiong, Mock, Ke and Cheung (2020) mentioned how the recent pandemic endangered the future of higher education at the global level. The authors believe movement restrictions and changes in visa policy are also a crucial part of these adverse effects. Evidence from Kercher and Placha (2020) supports the above views. Accordingly, the authors added this dimension to the current study.

### **3. Research Problem, Question, and Purpose**

'The recent coronavirus pandemic affected Bangladesh's tertiary education sector in the following dimensions: Psychological, institutional, and socio-economic. It also led to many other problems such as graduate employment in the labour market, migratory effects for students living abroad, pedagogical implications and academic uncertainty in periodical and other senses.' Research Question: What are the common effects of the recent pandemic on the 'Tertiary education sector in Bangladesh'?

### **Purpose of the Study**

**General purpose:** To explore the adverse effects of the pandemic on tertiary education in the following dimensions: Psychological effect, pedagogical effect, socio-economic effect, migratory effect, and academic as well as institutional effects.

**Specific purpose:** To explore the dynamics of socio-economic struggles considering future tertiary enrolments for students from low and middle-income families.

### **4. Methodology**

**Research design/method:** The research will deploy a mixed analysis method (quantitative and qualitative). It will be a 'Descriptive' type of research that involves 'systematic review'. Descriptive research describes the characteristics of the targeted variables under study as it is more concerned with the question 'what' rather than 'why' or 'how' (Gall, Gall, & Borg, 2007 cited via Nassaji, 2015). The data may be qualitative in such research, but it is often analysed quantitatively. Systematic reviews are a design that aims to identify all previous or current research that focused on one particular problem, dealing with one specific issue (Nightingale, 2009). Ibid (2009) gives a balanced but neutral summary of the literature, which can be analysed using qualitative and quantitative techniques.

**Type of study:** Prospective University graduates who are exposed to the risk of the recent pandemic.

**Type of participants:** All tertiary level students

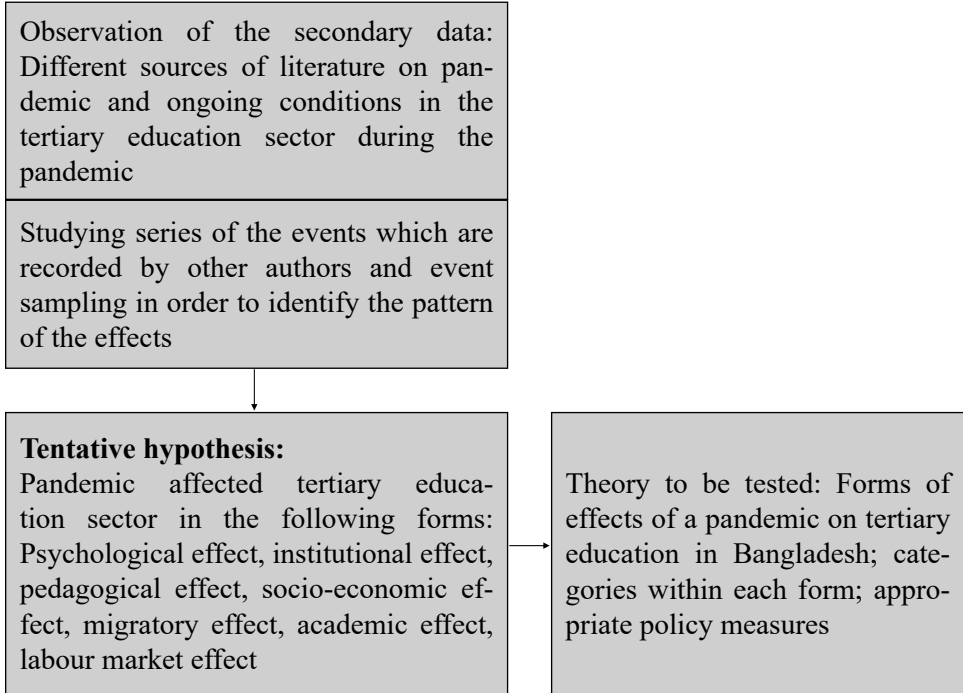
**Type of interventions:** No intervention with natural settings of the data to study things or objects or participants as they are

**Comparison:** Views and opinions of different researchers

**Outcome measures:** Risk factors associated with the pandemic for 'tertiary level education system.' Exclusion criteria are primary, secondary, or post-secondary education sectors (Nightingale, 2009).

**Sampling:** Event sampling focuses on a selected aspect of behaviour to reveal the nature of repetition of that same behaviour in analysing information from a series of events (Cambridge university press, n.d.)

Research level: Inductive level research with logical reasoning that derives the following:



(Burney and Saleem, 2008)

### Data Procedure

Data collection: Secondary data will be used to collect information on actual population characteristics (Ibid, 2018).

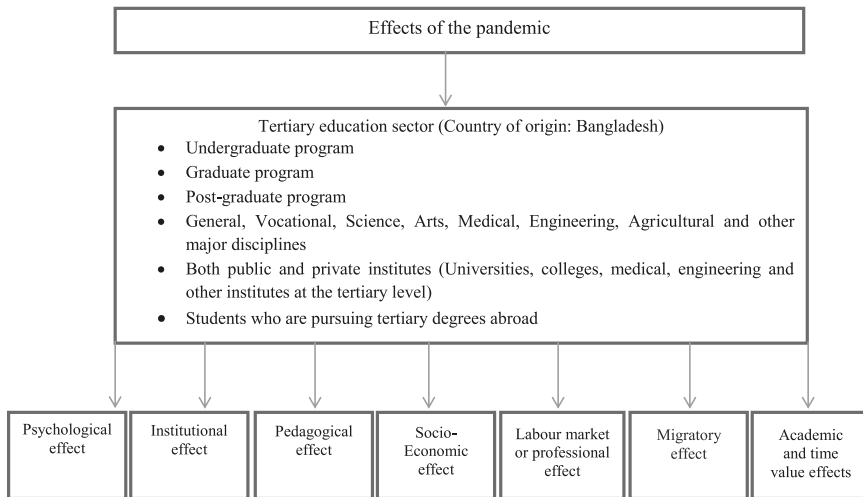
Techniques of data collection: Qualitative review, Quantitative review

Limitation: Absence of primary data.

Expected relationship: Effects of the pandemic on psychological state, pedagogical method, socio-economic condition, institutions, migratory students and the academic level.

Academic significance: The authors hope to positively contribute to ‘theories’ from the context of the recent pandemic and its negative aspects on Bangladeshi tertiary education sectors to design constructive policies.

## Conceptual Framework



## 4. Literature Review

Recent cases include Mamun, Mamun, Hosen, Hasan, Rahman, Jubayar, Maliha, Abdullah, Sarker, Kabir, Jyoti, Kggwa and Sikder (2021) pandemic led to enormous health-related problems for people in South Asia, and the effect was magnified among the Bangladeshi people. Ibid (2021) focused mostly on the young adults in Bangladesh, and the researchers presume a major subgroup of this population consists of tertiary-level students. Ibid (2021) mentioned the following problems: anxiety, frustration, depression, stress, hopelessness, panic, fear, sleep problems, etc. According to the findings of Ibid (2021), all of these symptoms caused a tendency to commit suicide for many of them. Ibid (2021) also added that the psychological fear of life is a prime factor for developing suicidal tendencies due to the prolonged lockdown and social distancing. Some authors mentioned psychological stress arising from the transformation of the learning system, such as online classes. AlAteeq, Aljhani and AlEsa (2020) found in their studies that there was an outbreak of negative emotions like nervousness and stress burden among the students, and some of them felt they were losing control over many important things in life while attending the virtual classroom. Considering all this evidence, the author has a firm reason to believe that the recent pandemic caused psychological breakdown among the students, even for relatively mature and attending tertiary institutes. Findings from Hossain, Ahmed, Rahman, Sanam, Emran and Mitra (2021) suggest the pandemic put a big question mark on human welfare because of mental health problems, especially among the university students. Findings from the same authors indicate depression and anxiety disorders



as common symptoms for the tertiary level students, which supports the earlier literature provided by Mamun, Mamun, Hosen, Hasan, Rahman, Jubayar, and Maliha, Abdullah, Sarker, Kabir, Jyoti, Kggwa and Sikder (2021). Evidence from Islam, Sujan, Tasnim, Sikder, Potenza and Os (2020) reinforces the same idea and emphasise physical problems as a consequence of mental disruptions such as eating or sleeping disorder and potentially addictive behaviours. Findings from Ahmed, Rahman, Bhounik and Siddiqua (2021); Barua (n.d.); Mohiuddin, Miah and Akter (2021), Liang, Kang, Zhang and Zeng (2021); Alam, Ali, Banik, Yasmin and Salma (2021); Islam, Barna, Raihan, Khan, Hossain (2020) also support with the above view. Therefore, the researchers identified the psychological effect as one of the major barriers created by the corona pandemic in the tertiary education sector. Shahriar, Arafat, Sultana, Akter, Khan, Nur and Khan (2021) believe that the tertiary education sector is largely harmed due to the pandemic because of personal and collective institutional effects. Findings from these authors (Ibid, 2021) suggest that lack of technological infrastructure, a limited number of digital devices, and lack of monetary funds support the digital platform on a collective basis for many institutions and on the other hand, the absence of tech literacy caused enormous problems at the individual level for both teachers and students. According to Shahriar, Arafat, Sultana, Akter, Khan, Nur and Khan (2021), the latter is to some extent related to the first factor (psychological panic and stressing) as mentioned earlier in the current paper. According to Begum, Hossain, Alam, Islam, Lemon, and Omar (2020), public universities in Bangladesh mostly depend on government funds. However, the supply of logistics and infrastructural facilities was not enough to conduct the entire teaching on a digital platform. Begum, Hossain, Alam, Islam, Lemon, and Omar (2020) also added other institutional problems such as accessibility, availability, quality of internet and shortage of devices producing a lower service satisfaction (Mazumder, 2014 cited via Ibid, 2020). However, ibid (2020) also suggested no definite estimation of this structural problem in the public institutes. Findings from Kamol (2020) suggest that the number of private university enrolments declined significantly; therefore, it negatively impacted the teachers' and other staff's administrative salaries. Kamol (2020) mentions that even giving tuition waivers was not enough to maintain the operational level expenditure. Based on the above evidence, the authors concluded that the pandemic had widespread negative institutional effects in the tertiary education sector. Aziz, Uzzal and Aziz (2020) believe that a huge amount of government investment from the pre-pandemic period was wasted due to unexpected closure and a prolonged lockdown. These authors also prescribe resuming university admission entrance exams in small batches by analysing the ongoing infection rate with flexible tools to overcome these negative institutional effects (Ibid, 2020). By analysing all this evidence, the authors may confirm the negative institutional effects on the tertiary education sector because of the pandemic. Finally, Dey, Khan and Hakim (2021) provided brief evidence on how

much institutional loss was incurred to different categories of universities – National, public, private and open universities, for example. Ibid (2021) made a separate estimation for each category, and the projected loss seems huge when converted to US dollars. These documents support the author's view and the other literature emphasising institutional loss. However, once institutional loss is referred to, one must consider the proportion incurred due to the change in the pedagogical method (transforming the whole system to a digital platform based on e-learning). The authors define this as a pedagogical method because Hoque (n.d.) describes any principle, ideas or beliefs about the nature of learning or teaching translated into reality in the classrooms as pedagogy. Ibid (n.d.) believes it is both the teaching strategy and the teaching approach designed to pursue long-term goals in the academic context. According to the Department of Higher Education in India (n.d.), different teaching techniques and skills are known as pedagogy, which supports the earlier definition of Hoque (n.d.). Accordingly, the researchers believe the effect of the digital transformation in the tertiary education learning system can be defined as pedagogical change as one may attempt to identify the effects of these changes relating to the present and future of higher education. The researchers find no categorical definition of e-learning as a pedagogical method, but Barbour (2005) came up with the idea that e-learning involves students and the learning process to be assimilative, which requires them to converge with the given process and tools, besides teachers are also a part of this assimilation process who also play the roles of converging. In contrast, diverging has the least role to play. However, accommodating may depend on other learners (Ibid, 2005). Thus, Ibid (2005) categorised e-learning as a 'pedagogical method' as 'Experiential learning' based on 'Kolb's theory. Some other authors defined it as 'cognitive learning' of pedagogy; however, there are no particular references. Based on the above theories, the authors may confirm that 'E-learning' may be well suited to fit the pedagogical model of 'experiential learning. Authors like Siadaty and Taghiyareh (2008) defined the pedagogy of e-learning simply as 'web-based education'. Kabir, Nasrullah, Hasan and Ahmed (2021) suggest that e-learning and level of readiness are deeply connected, and the effect of this connection is significant to take under consideration. Lack of resources and inaccessibility leading to structural or institutional problems are not the only dimensions of e-learning implications. This evidence directly suggests that readiness among the students to adapt to this process is a huge factor. Mahmud, Dasgupta, Gupta, Hasan and Kabir (2021) added their findings of the teachers' poor quality of online presentation and lack of student concentration as major problems of this recent pedagogical approach. Ibid (2021) further defined the 'lack of easiness' of the teachers and length of online classes as an additional source of constraints. Kusmaryono, Jupriyanto and Kusumaningsih (2021), who defined this recent approach as 'distance learning', find that management of the e-learning is difficult due to a lack of understanding of the instructional objectives. Thus, the quality of distance learning based on a digital

platform can get extremely poor. Reviewing all this evidence, the authors finally concluded that the whole and collective transformation of the education system had some clear adverse pedagogical effects because of the pandemic. Kusmaryono, Jupriyanto and Kusumaningsih (2021) believe that e-learning can be more accessible than traditional teaching methods if proper resources are available. Müller, Goh, Lim and Gao (2021) believe that both opportunities and challenges are inherent in the e-learning system, which supports the opinions of the previous authors about the recent pedagogical transformation. According to these authors, creating effective social, emotional and cognitive interaction and meeting the need of the diverse type of students simultaneously are the most difficult parts of this process. In contrast, increased flexibility due to the scope of independent learning is the biggest opportunity (Ibid, 2021). Findings from Kusmaryono, Jupriyanto and Kusumaningsih (2021) support the above evidence. Challenges seem to arise more when instructors are less converging to the system. Farhana, Tanni, Shabnam and Chowdhury (2021) find that a lack of expertise and proficiencies in assessing the learners is a major obstacle for the teachers. Dhawan (2020) identified the lack of instructional goals from the institutions as a major barrier that supports the earlier authors' view. Keeton (2004), cited via Dhawan (2020), mention that educators must make the highest level of effort in terms of time and delivery to make effective strategies to design the most proper instructions, such as asking for feedback to broaden the course contents online. Ibid (2020) further mentioned digital ranges of devices and understanding the varieties in their implication to increase the effectiveness (digital divide) and an increased cost of digital education as added components of the current challenge. Ibid (2020) firmly believe that the technical competencies of online educators are more crucial than anything within the current context of the pedagogical change. Literature from Baltaci-Goktalay and Ocak (2006) on faculty adaption with online technology in higher education supports the above view. Sidiropoulos, Bousiou and Demiray (2010); Lounaskopri, Vainio and Demiray (2010), while discussing the practice of e-learning, emphasised heavily the requirements of adult training and inclusion of initiatives in national education strategy to develop new skills on such learning practices like e-monitoring, e-working and online pedagogical research methods. All this evidence indicates that teachers need to adapt to a much-upgraded version of the teaching system that requires sound knowledge, training on digital literacies and practices outside the professional hours to become an expert in the e-learning system. Kituyi and Tusubira (2013) suggest reinforcing the 'integration theory of e-learning' to provide a blend of e-learning and face-to-face interaction. Even though all this evidence strongly suggests that e-learning is not complete without many criteria, within the current context of the research, which is 'the pandemic situation', re-examining these above issues is mandatory. Shahriar, Arafat, Sultana, Akter, Khan, Nur and Khan (2021) believe that digital education helps promote teachers' skills to a new level and increases cognitive abilities such as complex thought processes

among the students. These authors found another added benefit of the new pedagogical approach, which is the creation of the platform for ‘knowledge sharing’; however, these authors also agree that quality online education services may differ for different institutions because of the feasibility of resources. Emon, Alif and Islam (2020) mention that outdated internet service drastically affects public and private universities, especially in rural areas. In addition to the above, these authors also focused on the affordability of university students who accommodate themselves in rural areas to maintain a high-speed broadband service. Al-amin, Jubayar, Dev and Hasan (2021) find limited access to online devices and electricity as the major source of constraints for the newly transformed teaching system. All this evidence indicates a link between institutional or structural problems and the change in pedagogical approach more than teaching skills. However, Dey, Khan and Hakim (2021) propose in their research that online training for teachers, such as utilising central video streaming, free downloading options and creating an effective interactive learning environment, should be the priorities. This evidence finds beneficial opinions from Sidiropoulos, Bousiou and Demiray (2010); Lounaskopri, Vainio and Demiray (2010). Although Begum, Hossain, Alam, Islam, Lemon, and Omar (2021) believe professionally, the need for graduates to attend training centres will be minimised because of this new system. Considering the whole scenario, the authors may agree that the pandemic’s pedagogical effects on tertiary education include both positive and negative dimensions. Evidence from Miah, Kabir and Sultana (2020) on the study of teachers’ behavioural orientation strongly supports the above view. Ibid (2020) further claim about possible biased perception on the diffusion of technology orientation in terms of teaching staff’s demographic factors leading to weakening the effects of e-learning. Ibid (2020) explored the teaching faculties’ associated emotions, feelings and general perceptions of ‘e-learning’. This evidence indicates the importance of the ‘effects’ due to changes in the pedagogical method in tertiary level education, which can also be non-cognitive from the educator’s perspective.

World Bank (2020) attempts to study the pandemic’s economic impacts on education financing. Ibid (2020) believe the education sector will depend heavily on the fiscal effect on the national governments due to the pandemic crisis. Ibid (2020) also believe that many countries will face difficulty managing their education budget for the next several years. But what about Bangladesh? Dey, Khan and Hakim (2021), who attempted to estimate an institutional loss by categorising the universities, clearly mentioned that only a planned finance system from the government could help overcome this loss. Thus, the authors developed an interest in seeing the socio-economic impact at individual levels rather than considering the whole macroeconomic perspective. Emon, Alif and Islam (2020) mention the socio-economic status of the mass population in terms of their access to technology and the financial abilities of the household heads. According to these authors, because many citizens in Bangladesh still live below the poverty line,

it is often infeasible for them to afford expensive devices for online education (Ibid, 2020). The authors also added a teacher's odd economic situation to access expensive online tools as a significant factor (Ibid, 2020). Uddin (2020) provided detailed evidence on the 'socio-economic' impact on the tertiary education sector and found that a negative economic consequence may be on the horizon. South Asian Economic Modelling cited via Ibid (2020) found that families of the future graduates who live below the poverty line may lead to sufferings in funding the university education. Emon, Alif and Islam (2020) repeatedly focused on the issue of family income and the need for temporary student grants and scholarships. Ibid (2020) specially mentioned this need for students from families experiencing job loss. All this evidence strongly suggests that the pandemic's socio-economic impact on tertiary students is important within the current context and an issue that needs to be considered once this deadly pandemic is over. The authors firmly believe the need to focus on this issue can be categorised into several levels: loss of occupation, income loss for self-employed family heads or untimely death of a family member due to the pandemic condition. Uddin (2020) further suggests that many teachers may be switching off their current profession due to income constraints in the post-pandemic period, supporting the author's views. Finally, Ibid (2020) strongly believe that the future socio-economic impacts arising from Covid-19 will certainly have long-term consequences in terms of lifetime income and productivity of the current age-cohort among the graduates from low-income families except in situations which involve government intervention. Next, the researchers focused on the effects of the pandemic on the labour market condition as graduate employment is largely the outcome of almost every education system. Khan (2020) believes that as an outcome of covid-19, many firms need to reduce their operational expenditure and so eliminate many job positions, especially in the presence of a newly transformed digital platform, without the physical presence and a new 'working from home' culture will lead to unemployment among many new graduates as this number may certainly go up in the next several years. Ibid (2020) also adds that fresh graduates who only recently completed their degrees will find it extremely difficult to compete in the job market. After reviewing such evidence, the author firmly believes this may happen due to the presence of old and experienced candidates in the job market who are already well-trained in the newly assigned job roles. One may call it the shift in 'skills dimension and technology' effect on the labour market even though it depends on the type and nature of the industry (Johns and Johns, 2007). Ibid (2020) discussed, in brief, the changes which took place within job nature & contexts causing a gradual professional shift among the fresh graduates; however, the same authors also argue that this newly defined professional environment could be an alternative opportunity to generate increased digital earning for both individuals and firms in the labour market who suggested self-employment as a more feasible option than attending a formal job shortly. After critically examining such evidence, the researchers conclude that the impact

on the labour market for the graduates due to the recent pandemic looks definitive. However, the effect may vary for individuals due to their level of digital skills, literacy, selection of occupations and existing labour market conditions. Akter (2020) believes one may see this impact in formal and informal labour sectors as she categorises the possible affected job sectors: RMG, Banking and Insurance, and Transportation and tourism. As a result, the authors do not doubt that many of these mentioned job sectors will certainly affect formal graduate employment. Tabassum, Jahan and Ahmed (2021) believe that the long-term effect of this recent pandemic will mostly arise in highly skilled professions compared to non-essential informal jobs, which once again supports the researcher's idea that graduate employment will be under huge negative impact. Mahmud, Chowdhury, Adib, Nasrullah, Bashar and Akram (2021), as a partial view of a thorough investigation on 'tertiary graduates and employment at national college levels' conducted by the Bangladesh Institute of Development Studies, provided firm evidence that both graduates with self-employment and graduates with full time or part-time degrees who are looking for formal salaried employment will be facing enormous challenges in the labour market due to this recent outbreak of covid-19. Evidence from Ibid (2021) reinforces the ideas of the authors.

Findings of Mannan, Chowdhury and Farhana reveal that the pandemic forced many national governments to impose restrictions on travel, work and immigrant visas (2020). Therefore, the researchers are willing to identify the negative impact on migratory students as most Bangladeshi students pursue higher education abroad every year. Xiong, Mok, Ke & Cheung (2020) reveal that the above problem might be related to socio-economic conditions as one may see a rise in social and economic inequalities across the globe and as a result, some countries struggle to maintain the current platform of international learning due to a possible economic disparity. Ibid (2020) also discovers that the rate of enrolment of international students in the host countries has significantly declined, which strongly indicates the lack of migration among the home country students to obtain tertiary degrees in different countries. Now the remaining question: How severe is the impact on the Bangladeshi students as home country residents in international higher education? Ela, Shohel, Shovo, Khan, Jahan, Hossain and Islam (2021) believe that the shutting down of the administrative and academic institutes certainly affected the learning process of billions around the globe; however, it did not mention anything specifically about the increased financial burden on the families in home countries due to prolonged academic sessions in the host countries including living and food expenditure. Xiong, Mok, Ke & Cheung (2020) added many raised questions about the value of future higher education on the international platform. Most of them cancelled their plans to study abroad, and the authors defined the effect on student mobility in international higher education. No specific literature was found in this regard from the Bangladeshi context. Ibid (2020) explained these adverse effects in terms of the pull and push theory of international education



(Lee, 1966 cited via Xiong, Mok, Ke & Cheung, 2020) as push factors are those which force the home country students to go abroad to avoid adverse economic and academic conditions and pull factors motivate one because of the positive aspects which are inherent in host country investment on international students. Although none of the local authors provides any specific literature on this issue from the perspective of Bangladeshi students, the researchers, however strongly believe that one might see a revolutionary change in these factors due to the recent pandemic as it will undoubtedly reshape the perception and views on life among many future graduates. Finally, the authors want to focus on the academic effects on the tertiary graduates regarding time value in the labour market. According to Latchanna and Hussein (2007), one decides to obtain higher education as the time that is sacrificed for spending hours in the classroom instead of the labour market, which is treated as the 'opportunity cost of higher education' must not be greater than the return they are hoping to get from the labour market with a higher level of skills in the future. This estimation also depends on the time value of hours and money (Ibid, 2007). Evidence from (Johns and Johns, 2007) supports this above view.

One may conclude that as time is extended due to academic gaps, the possibility of a future return is greater than the opportunity cost. Ela, Shohel, Shovo, Khan, Jahan Hossain and Islam (2021) added the 'study gap' problem even though these authors were literary discussing the adverse psychological effects arising from the gaps and future uncertainties are associated with it. Ibid (2020) believe that the current situation of the pandemic has left many graduates undecided on whether to continue with their academic life or drop out of higher education. Dutta and Smita (2020) found that assessment and educational disruptions were an added component of this problem. Mahmud, Kabir and Dasgupta (2021) define the above situation as the 'education gap' and claim that the effect is solely upon the university graduates. Aziz, Uzzal and Aziz (2020) emphasised restoring the level of university entrance admission tests. They found a strong relevance between the rate of infection, lockdown period and timely conduction of admission tests in the tertiary sector with best practices. It indicates the pandemic's negative impact on 'academic/study gaps' in terms of a future return to higher education while one considers the 'time value' of education.

After critically evaluating all of the literary evidence, the researchers may confirm the following effects of the pandemic on 'tertiary education' in Bangladesh: Psychological effect, Pedagogical effect, Institutional or structural effect, Labour market or graduate employment effect, Socio-economic effect, Migratory effect and Academic effects.

## 5. Quantitative review

Mamun, Hosen, Hasan, Rahman, Jubayar, Maliha, Abdullah, Sarker, Kabir, Jyoti, Kaggwa and Sikder (2021) found that almost 8.2% of the young adults were found to have suicidal thoughts during the pandemic. Additionally, 7.40% had tried to seek ideas to commit suicide, 0.10% had a plan to commit suicide, and 0.70% attempted to kill themselves (Ibid, 2021). Among the other psychological effects, the authors found drug addiction, broken physical condition due to higher anxiety and stress, fear of suffering the infection, and depression from social distancing. All these factors seemed statistically associated with a tendency to commit suicide. Studies from Zhenga, Siddik, and Masukujjaman (2021) on attitude and psychological effects of the tertiary graduates revealed that awareness about the covid-19 infection was noticed because of the social media (60.80%) posts. The same study also revealed that another 23.86% of the respondents were informed through online blogs or forums, whereas news channels, friends and relatives informed others (7.39%). Based on these findings, 80% of these respondents (university students) experienced extreme fear, and the rest remained patient. Research from Begum, Hossain, Alam, Islam, Lemon and Omar (2020) included 1092 students from 15 public universities, and according to their findings, 64% had a psychological breakdown. This evidence suggests that the pandemic has had a clear negative psychological effect on the tertiary graduates. Ibid (2020) also found the following: About half of the respondents (542 - 49.6%) were heavily bothered due to increased e-learning costs, (461 - 42.2%) were in a panic as they were located near COVID-19 patients, (805 - 73.7%) experienced loss of income, (367 - 75.2%) lost part-time jobs and (688 - 63%) had financial crises (Ibid, 2020). Additionally, (827 - 75.7 %) faced problems due to limited internet access and (526 - 48.2%) had problems with device accessibility to attend online classes, also (519 - 47.5%) failed to bear the internet cost. Finally, Ibid (2020) also found a significant time reduction in terms of study hours from (3.67±2.17) to (1.23±1.34) hours, and career planning (853 - 78.2%) were affected by indecision and delayed response. This evidence strongly suggests the pedagogical, socio-economic, labour market, and negative effects arising at the personal level due to academic gaps. Data from Islam, Barna, Raihan, Khan and Hossain (2020) suggest that out of the total sample, 392 (82.4%) students were experiencing mild to severe depressive symptoms, and 389 (87.7%) students were caught by mild to severe anxiety symptoms; An online survey findings indicate that during April 2020, out of a total of 3,122 Bangladeshi university students who are aged from 18 to 29 years (59.5% males; 40.5% female) there was a widespread symptom of depression, anxiety and stress: 76.1%, 71.5% and 70.1% mild symptoms, 62.9%, 63.6% and 58.6% moderate symptoms, 35.2%, 40.3%, and 37.7% severe symptoms and 19.7%, 27.5% and 16.5% very severe symptoms (Islam, Hossain, Tasnim, Sikder, Potenza and Os, 2020). According to Shama and Iqbal (n.d.), as university type is taken into consideration, it is seen that approximately 36% of private university students are



concerned about study gaps. In contrast, among public university students, approximately 47% are worried about the study gap, and over 78% have indicated that they consider current internet connectivity prices too high for online education. This evidence strongly suggests psychological, socio-economic, pedagogical, and academic effects supporting the previous findings. Additionally, Khan, Bashir, Basu and Uddin (2021) found that most (87.3%) of the teachers did not receive any training on online teaching. Ibid (2021) also identified that 12.7% of the teachers at the university level received some form of training, including self-initiated and institutional training during the pandemic, which once again supports the authors' view on limitations imposed by the authors on the pedagogical change due to the pandemic. Further, based on the same findings, nearly two-thirds (65.2%) had no prior online teaching experience (Ibid, 2021). Similar findings also reveal that 63.8% of the students had no prior experience remotely attending classes (Ibid, 2021). Thus, all these data are consistent with the earlier literature on negative effects on teachers and students who had little or no exposure to the newly transformed teaching and learning method. Based on the findings of Khan (2020), Abul Barkat, current President of the BEA, referred to the downward mobility of some 59.5 million households into lower/different socio-economic strata during this pandemic. Further, Ibid (2020) describe that 25.5 million people are now living in extreme poverty who were economically better off before the pandemic. It gave a significant rise in national poverty to 35 per cent in 2020 from 24.3 per cent in 2016 because of income loss, death of family members or loss of occupations during the pandemic (CPD cited via Ibid, 2020). According to Uddin (2020), even though the BEA president believes that the "very rich" class that is estimated at around 17 million, will not be affected but among all classes or categories of people, there will be a massive job loss involving the highest job losses in the following sectors: service, agriculture, and industry (Ibid, 2020). This negatively affects tertiary degree holders seeking employment in the job market. According to ADB (2020) number of job postings dropped sharply from the third week of March 2020 - just one week after the first cases of COVID-19 were traced, and a nationwide lockdown was imposed. ADB (2020) also confirmed that when the figures for job postings are compared to the last year (December 2019), the number of new job postings was approximately the same at the beginning of 2020 (January). However, it significantly declined by 10%–17% as the year proceeded (during February). Once the covid-19 infection was identified in Bangladesh, the figures for job postings experienced a sharp fall (during the first and second weeks of March, followed by the ending week in the same month) as the number of job postings was down from 59% to 24% during this time. These data strongly support the earlier views of the authors on the negative effects on graduate employment and seem consistent with the literary findings provided by the other authors. Based on the findings of Uddin (2020), e-learning had a huge negative implication as only 5.0 per cent of the households (among those who were surveyed in the rural areas) do

not have a mobile phone with multiple facilities such as zoom, video conferencing or other applications for students in these families to attend online classes, having computer/tablet was another major obstacle: 62 per cent among the surveyed households do not have access to the broadband or other reliable internet services at home. Based on the latest HIES findings cited via Ibid (2020), around 12.70 per cent of the poor or low-income households do not have a single mobile phone with multiple facilities. These support the views of the researchers about the negative effects in terms of pedagogical change and structural as well as socio-economic dimensions. According to Mohiuddin, Miah and Akter (2021), a survey that was conducted on families with university graduates found - that 43% of respondents have strongly faced pressure to pay house rent, followed by 65.9% due to unemployment, 55.6% of the students lost their part-time job, and 46.7% experienced economic hardship in paying their educational expenses. Further, they were constrained by the rising supply cost of food (48.9% agreed and 36.3% strongly agreed), 34.8% agreed on the increasing threat of losing the job of the family's main earner, and 37% agreed on the growing educational cost on tuition fee or semester fee or internet fees. All this evidence strongly indicates the negative effects of the pandemic on the socio-economic domain.

Based on Dey, Khan and Hakim (2021), per day institutional costs and students' individual higher education costs during a pandemic are USD 2.90 m and USD 5.82 m, respectively. Summing up these two costs, the total economic cost due to the pandemic became USD 8.72 m per day, including private, public, national, and open universities. These costs are higher than before when e-learning was non-existent (Ibid, 2021). Findings from World Bank (2021) suggest that the profitability of all these institutions has sharply declined during the pandemic due to a sharp fall in graduate enrollment. As per individual institutional data: the Association of Private Universities of Bangladesh data indicates that enrolment in this summer semester at the beginning of 2020 - for private universities fell by up to 88 per cent compared to the summer semester of the previous year before the pandemic. Ibid (2021) also indicated individual institutional estimations, which suggest: The number of enrolments at BGMEA University of Fashion and Technology dropped by 88 per cent (Ibid, 2021). It had 623 students in the summer of 2018, 741 in 2019 and just 82 in the last summer (Ibid, 2021). At the same time, Prime University's enrolment dipped by 77 per cent as only 76 students enrolled in the most recent summer semester, while the figure was 332 in the summer of the previous year before the pandemic (Ibid, 2021).

Further, Daffodil University enrolment fell to 1,088 students in the current summer semester, while the number was 1,760 last summer (Ibid, 2021). Precisely if one goes back to the data which is provided by Khan, Dey and Hakim (2021), it ultimately makes sense that out of the USD 8.72 million spent per day total cost of higher education - during the pandemic: per day institutional loss was USD 2.90 million and per day student loss was USD 5.82 million (Khan, Dey and Hakim,

2021). These data strongly suggest that the institutional effect due to the pandemic has been largely negative, and they occurred in the form of sharp economic loss. Finally, regarding the migratory students, the prolonged closing had a significant impact not only on the academic life of about 1.3 billion learners from schools, colleges, and universities in 185 countries (United Nations Educational Scientific and Cultural Organization, 2020a, 2020b, 2020c cited via Ela, Shohel, Shovo, Khan, Jahan, Hossain, Islam, 2021) around the world but it also affected their status of student visas and travel for education purpose. Based on Kercher and Plasa's (2020) findings, who conducted a study on international students in Germany, almost two-thirds (65%) of the universities around the globe reported that students cancelled their plans to stay abroad for educational purposes during the 2020 summer semester. Also, more than a third of the universities (29%) report cancellation of welcoming events (Ibid, 2020). Considering student mobility, the decrease of international students due to the pandemic will negatively impact overseas higher education institutions, especially in financial terms (Marginson, 2020a; Tesar, 2020 cited via Xiong, Ke Mok and Cheung, 2020). For example, UK universities would face an approximately £2.5 billion loss in tuition income from international students in the new academic year (Ibid, 2020). These data are consistent with the authors' earlier views on adverse migratory effects on international tertiary students in terms of student mobility, academic fees and residential access.

## 6. Findings from the Review

Based on the results, it was revealed that the following psychological effects took place –

- Anxiety
- Fear
- Stress and depression (low, mild, severe)
- Suicidal tendencies

These effects took place for different reasons:

- The implication of the new learning method
- Uncertainty of academic and professional career
- Risk of being infected
- The economic burden to adjust with increased expenses
- Social distancing and isolation.

Further following institutional effects were observed:

- Monetary loss for educational institutions due to the reduced number of enrolments
- Increased operational expenditures leading to job loss of many teachers and staff
- Structural limitations, especially in rural areas, to adapt the new teaching method (lack of infrastructural facilities to set up or deliver the broadband service)

- Heavy reliance on government funding
- Lack of device accessibility and poor quality (e.g. internet speed)
- Cancellation of semesters, academic programs and entrance exams.

Following pedagogical effects were found:

- Change in the teaching method and implication of e-learning
- Little or no training to adjust to the new pedagogical method
- Stress (psychological effects) seems to be associated with pedagogical effects due to changing class hours
- Lack of instructional objective
- Lack of digital literacy both for teachers and students
- Increased operational expenditures related to the new e-learning implication (as institutional effects and pedagogical effects also seem to be associated with each other)
- Difficulties in assessment and monitoring of teachers
- Difficulties in communicating with students.

Following socio-economic effects were identified:

- Reduced income and increased expenditure leading a fall in living standards for graduate families relying on formal jobs
- Reduced income and increased expenditure leading a fall in living standards for graduate families relying on self-employment (small business owners or entrepreneurship)
- Job loss (Part-time/full-time) for students (current and old graduates) themselves
- The death of the household head or a primary earning member of the family leads to possible funding constraints for future graduate prospects
- Downward mobility within the social class for many graduate families
- Lack of affordability to access the tools of e-learning for graduate families who live in rural areas (as socio-economic effects and pedagogical effects seem to be associated within this current context)
- Loss of interest in higher education
- Increased poverty among the graduates with low-middle income families.

Following labour market effects were noticed by the authors:

- Obstacles in seeking employment for fresh graduates
- Change in skill requirements for jobs based on digital platform
- Reduced number of supply of vacancies/elimination of job positions in high-skilled industries
- Reduced number of job posting
- Changing nature of work environment (working from home).

Following migratory effects were found for students pursuing tertiary degrees abroad:

- Lack of student mobility due to cancellation of the plan to study abroad
- Cancellation of semesters, academic programs, welcoming events and

other activities by the institutions

- Increased living expenditure for international students
- Imposed restriction on travel for international students
- Imposed restriction on visas for international students.

The author observed the following academic effects:

- Study gaps or academic delays and uncertainty of institutional re-opening lead to the possibility of a higher opportunity cost for periods which are spent on education compared to the relatively possible lower future return from the labour market
- Discouragement for students to continue higher education (possibility of dropout or discontinuation)
- Obsolete knowledge from previous learning.

## 7. Answer to the Research Question

Tentative Hypothesis—

Conventional: Covid-19 pandemic effects on the tertiary education sector of Bangladesh cannot be categorised in the following forms: Psychological status of individual graduates, Institutional structures, Pedagogical methods, Socio-economic class, Labour market conditions, Mobility of international students, Loss in academic levels in terms of the time value of education.

Alternative: Covid-19 pandemic effects on the tertiary education sector of Bangladesh can be categorised in the following forms: Psychological status of individual graduates, Institutional structures, Pedagogical methods, Socio-economic class, Labour market conditions, Mobility of international students, Loss in academic levels in terms of the time value of education.

## 8. Recommendations

The authors believe the study is incomplete without primary research because there can be a far difference between theoretical implications and reality. However, whatever the reality is, it is an emergency to take remedial measures as soon as possible to overcome the seriously damaging effects impacting the tertiary education sector. Ela, Shohel, Shovo, Khan, Jahan, Hossain and Islam (2021); Dutta and Smita (2020); Mahmud, Kabir and Dasgupta (2021); Kusmaryono, Jupriyanto and Kusumaningsih (2020); Mamun, Mamun, Hosen, Hasan, Rahman, Jubayar, Maliha, Abdullah, Sarker, Kabir, Jyoti, Kaggwa and Sikder (2021); Müller, Goh, Lim and Gao (2021) and many other authors who worked on the same issue strongly agree with the researchers and prescribed policy measures at different level on different dimensions of the topic. According to the researchers -

The government should set up a counselling department in almost every university to consult with the graduates to overcome their psychological fear, anxiety, stress or depression. Families, relatives and friends of the graduates

should be advised to encourage the students to attend the counselling. Mamun, Mamun, Hosen, Hasan, Rahman, Jubayar, Maliha, Abdullah, Sarker, Kabir, Jyoti, Kaggwa and Sikder (2021) suggest taking mental health initiatives at all level for the graduates throughout the country that supports the view of the authors.

It is necessary to re-evaluate the implication of e-learning on several spectrums: Cost, Convenience of the clients from all income classes, Accessibility for all institutions from both urban and rural perspectives, Infrastructure, Device and other digital literacy, Training on instructional objectives, Attempts to reduce mental stress arising from e-learning teaching environment and Subsidising feasible distance learning program for private institutions. Evidence from UNICEF (2021) on the case study that was conducted on the whole education process of Bangladesh during the pandemic also suggests evaluating distance learning as an alternative tool to the physical form of education that should be used not only at the tertiary level but also at the primary and secondary level of education. Evidence from Brac (2020) suggests taking special care of the rural madrasa students or students with disabilities equally to adapt to the new teaching process. Müller, Goh, Lim and Gao (2021) prescribe mixing physical interaction with the e-learning process, whereas Kusmaryono, Jupriyanto, and Kusumaningsih (2021) suggest recording lesson presentation sessions and class discussions and then sharing them with the students who are unable to join the live session to make e-learning process more effective. However, none of these authors provides any guide on the implications of e-learning training. Finally, Dhawan (2020) mentioned that IT infrastructure development is a prior condition to continue with the e-learning process, and it is similar to the researcher's recommendation. Although Baltaci-Goktalay and Ocak (2006) contributed to the field of e-learning before this pandemic began, they improvised the ideas of full adoption of the faculty members and educators to educators make the e-learning process successful. Ibid (2006) believe organised vision, proper planning, and mass-level financing are required to launch e-learning initiatives at a more significant level. The concerns of the educators and faculty members should be acknowledged to support them in delivering effective teaching.

Additionally, Miah, Kabir and Sultana (2020) focused on the behavioural orientation of the educators, whereas Dhawan (2020) emphasised the need for digital literacy. All this evidence strongly supports the author's suggestion to implement an entire course of training programs on e-learning for both educators and learners. Finally, Dey, Hakim and Khan (2021) suggested initiating online training for the teachers, forming a central video-streaming channel including a free downloading option, ensuring free internet connection and an environment for teachers and students that fully supports the policy measures that the current authors recommend. The researchers also believe that maintaining an optimum class size for e-learning sessions is equally effective as physical classes. Evidence from Dey, Hakim and Khan (2021) also supports this view.

Government must provide equal benefits and access to funds for private and public universities to overcome the institutional effects. Suggestions from the World

Bank (2020), which emphasise financing based on effectiveness and utilising scarce resources to improve the quality of weak institutions, make complete sense and duly support the researchers' idea. Dey, Khan and Hakim (2021) prescribed planned finance to help the students, teachers, and educationists, and Ibid (2021) also reinforced the role of government in Bangladesh in reducing the educational loss.

Providing easy access to bank loans to graduates with families in financial trouble due to loss of income, occupation, formal jobs, or prior death of any earning family members could be a great solution to the problem of downward socio-economic mobility because of this deadly pandemic. Evidence from Begum, Alam, Hossain and Islam (2020) supports this view of the authors, who believe both public universities and government should provide financial subsidies to students who are in an adverse financial situation due to the pandemic. At the same time, it is necessary to provide learning tools and other digital kits (devices such as laptops, mobile phones with multiple applications such as zoom, what is the app, video conferencing, messengers) free of cost to students from families with less affordability, especially those who live in rural areas and do not have to access to high-speed internet to promote equal access to e-learning.

The academic gap is a serious problem and causes a higher dropout rate. To reduce absenteeism and lack of participation in the new learning process, universities must ensure at least one weekly physical meeting between the teachers and the students. At the same time, universities can re-start their mandatory physical programs such as admission tests and course orientation at small units to inspect the daily infection rates by adopting the required safety protocols. It will also help minimise the impact of confusion and uncertainty among the students. There must be a threshold level of attendance from both participants and organisers. Evidence from Aziz, Uzzal and Aziz (2020) supports this view.

Universities should design 'Digital career planning' related courses, counselling policies to promote a digital career, and training programs to enhance the digital literacies and skills among the fresh graduates. The government should also invest additional funds in training and vocational courses alongside regular education to improve the level of digital skills among the young graduates to compete in the labour market.

Finally, there should be initiatives from the government through different formal and informal channels located in foreign countries to comfort the home-bound students and take necessary actions to remove any obstacles in fluent mobility of education/living expenditure-related funds or visa restrictions. Students may consider alternate destinations instead of regular choices with more flexible international education policies during the crunch time.

The researchers wish to collect primary data to soon test these effects' categorisation.



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## Post-COVID situation of internal returnee migrants in Southwest Bangladesh: A rapid assessment\*

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### Abstract

*Internal economic migration is widespread in Bangladesh as workers move to the growth centres or economic hubs, especially large cities and towns, searching for economic opportunities. During the COVID-19 pandemic, when the lockdown was enforced, there was an exodus of workers from their host locations back to their home locations. Many businesses were shut down, and many workers were laid off either temporarily or permanently. In Bangladesh's economy, more than four-fifths of the labour force is engaged in the informal economy and unemployment or underemployment is a serious issue. The COVID-19-related layoffs thus posed a severe economic crisis for the internal migrant workers who were left to fend for themselves without any formal entitlement or alternative employment. While there has been significant discussion and attention to the plight of the international returnee migrants, the helpless situation of the internal returnee migrants was little discussed in the literature. This paper sheds light on the economic situation of the internal returnee migrants in the second wave of COVID-19 in the climate-vulnerable region of Southwest Bangladesh, centred on the Mongla-Bagerhat region. The paper also suggests how to provide relief to this group during crises.*

**Keywords** *Internal migration · COVID-19 · Climate change adaptation · Gender and adaptation · Sustainable livelihood*

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## 1. Introduction

The COVID-19 pandemic has severely impacted the livelihood of the marginal population in Bangladesh. BBS estimates that poverty has risen from 20% in 2019 to almost 30% in 2020. Unemployment rate rose from 3.4% in 2010 and 4.2% in 2019 to 5.3% in 2020-21. One study found that 36m people – mostly from the informal sector – lost their jobs.<sup>1</sup> Globally, the food security situation worsened in 2020, as around 10% of the world's population suffered from food insecurity, according to an assessment by the UN.<sup>2</sup> In the rural economy of Bangladesh, there were impacts like 'delayed harvest, difficulties in selling farm produce, labour and non-labour input disruption and cost increases, and reductions in remittance receipts and non-farm business sales'. Moreover, in households led by women with low education, young or casual workers suffered more. There was decreased food and non-food consumption in households.<sup>3</sup>

The impact of COVID-19 has been differentiated across different groups within the population. Migrant workers, informal workers, women workers, people not in employment, education or training (NEET), and so on have been among the most affected.

One of the critical segments of the vulnerable population has been the internal migrant workers of Bangladesh. Internal migration is usually defined as a change of residence within a country. Internal economic migration can be designated as residence in a location different from one's home location for economic reasons such as employment or livelihood. Around 10% of the population of Bangladesh have internally migrated at least once in their lifetime. Regarding the direction of migration, most of the migration is rural to urban or urban to urban. Economic opportunity and natural disasters are among the critical reasons for internal migration. Migration is thus a key livelihood strategy for people around the country. Dhaka is the primary destination of internal migrants. Migration can involve whole families moving to the host destination or the earning members undertaking the migration and sending remittance back home to the staying-back family. For unskilled or low-skilled people, migration to large cities offers more significant economic opportunities, although the quality of life other than income may be limited. While income increases through such economic migration, it may not ensure asset-building or poverty alleviation.<sup>4</sup>

<sup>1</sup> According to a short survey by Caritas Rajshahi among 600 households conducted in northern Bangladesh, 67% informal sector workers lost their jobs.

<sup>2</sup> UNICEF, "Jāṭisaṅghērapratibēdana: Mahāmārirabacharēbīśbēkṣudhābṛd' dhi", July 12, 2021.

<sup>3</sup> M. A. Malek, H. T. Truong, and T. Sonobe, "Changes in the Rural Economy in Bangladesh under COVID-19 Lockdown Measures: Evidence from a Phone Survey of Mahbub Hossain Sample Households", ADBI Working Paper 1235, (Tokyo: Asian Development Bank Institute, 2021), Available: <https://www.adb.org/publications/changes-rural-economy-bangladesh-under-covid-19-lockdown-measures>

<sup>4</sup> Abu Hena Reza Hasan, "Internal Migration and Employment in Bangladesh: An Economic Evaluation of Rickshaw Pulling in Dhaka City", in *Internal Migration, Urbanization and Poverty in Asia: Dynamics and Interrelationships*, ed. by Prof. Kankesu Jayanthakumaran, Dr. Reetu Verma, Dr. Guanghua Wan, and Prof. Edgar Wilson (Springer Singapore, 2019).

During the COVID-19 pandemic and the resultant lockdowns, a large share of the migrant workers returned home to protect themselves from the health hazard and cope with the financial distress arising from unemployment or underemployment. Workplaces were shut down or ceased operation temporarily, and there were layoffs. During the Eid under lockdown in May 2021, at least 10.6m people left Dhaka, according to Bangladesh Telecommunications Regulatory Authority (BTRA). It provides a rough estimate of migrant workers willing to go to their homes outside Dhaka during a holiday or an emergency.<sup>5</sup> The economy opened in September 2021 as the second wave of COVID-19 passed, and many migrants returned to their former host locations. However, it is unclear what percentage of migrant workers have been reintegrated into employment in the aftermath of the second wave of COVID-19.

The question of internal migration and economic vulnerability is exacerbated by the factor of the informality of the economy.<sup>6</sup> 89% of the labour force is employed in the informal economy, according to the 2010 Labour Force Survey. In the wake of the pandemic, the informal workers were left to fend for themselves without alternative employment or formal entitlement to welfare benefits.

The return of migrant workers to their homes has implications on several aspects, such as:

**Unemployment and Underemployment:** Many returnee migrants return home having lost their job. Unless they find gainful employment at home, they are relegated to unemployment or underemployment, affecting their income.

**New economic opportunities and engagements:** A section of returnee migrants adapt to new economic activities at home. This may probably mean increased economic activity back home, which could be examined.

**Increased Poverty or Distress:** Returnee migrants may experience erosion of their income. This has implications for the standard of living and quality of life of themselves and their dependents, especially children.

**Redistribution of Economic Poles:** Migrants' return to home can eventually drive changes in the geographic distribution of economic activities based on whether circumstantial factors facilitate or hinder the redistribution.

The economic impact of COVID-19 on various groups was compounded by pre-existing vulnerability and stress factors, the most significant of those being climate change. Bangladesh is one of the most climate-vulnerable countries, just as South Asia ranks among the top climate-vulnerable regions. Slow- or rapid-onset disasters and hazards due to climate change, such as salinisation, temperature

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<sup>5</sup> The Daily Star, "1 crore mobile phone users left Dhaka during Eid holidays", May 17, 2021. <https://www.thedailystar.net/business/news/1-crore-mobile-phone-users-left-dhaka-during-eid-holidays-2093429>

<sup>6</sup> The projected labor force growth rate for Bangladesh is 2.2% over the next 10 years and 2 million youth are joining the workforce every year. Among them 0.6 million are from mainstream education and 1.1 million are trained from government/ private skills development agencies.

variation, erratic rainfall, cyclones, drought, flash floods, and so on, eroding the livelihoods of vulnerable communities' vulnerable populations. As a result, climate change has emerged as one of the significant contributors to internal migration. By 2050, internal climate migrants in South Asia could reach 40.5 million (pessimistic scenario), 21.1 million (average scenario) or 16.9 million (optimistic or climate-friendly scenario). In the pessimistic scenario, Bangladesh will have 13.3m climate migrants by 2050. Declining water availability and crop productivity will be two critical factors behind climate out-migration.<sup>7</sup>

According to a 2015 Bangladesh Bureau of Statistics (BBS) survey, Dhaka and Gazipur are the most popular districts for internal migration. It creates an unsustainable pressure on the cities in the long term, especially in the context of climate displacement.

The Southwest region of Bangladesh, centred on the Mongla-Bagerhat zone, is a highly climate-vulnerable region affected by hazards including severe salinity, flooding, erratic rainfall pattern, and so on. These have caused a lack of pure drinking water and degradation of croplands, eroding the livelihoods at the local level. If we look at the internal migration profile of Southwest Bangladesh, it can be seen that 15% of the population in Khulna are floating population. However, the percentage is much higher in other divisions like Rajshahi and Rangpur. In the Bagerhat district, only 7% population is floating. In the Khulna division, 77% of the migration is internal. 31% of migrants living in Khulna were born in Dhaka. While migration within Khulna is most intra-divisional, a significant share of workers settled there is from Dhaka.<sup>8</sup>

There has been little research on the impact of COVID-19 on the internal economic migrants, especially those who returned home. In this backdrop, this research was initiated by Business Initiative Leading Development (BUILD) with support from the PROKAS programme of the British Council along with FCDO, UK, seeking to understand the impact of COVID-19 on their lives and livelihood and how to ensure that they can recover and resume income-generating activities. BUILD has identified some of the issues faced by the internal returnee-migrants and structural problems faced by MSMEs that hamper full economic recovery in the aftermath of COVID-19.

## 1.1 Objectives

There is insufficient understanding of policy-makers and key stakeholders about the situation of internal returnee migrants. While there has been extensive literature and some interventions about overseas migrants who have returned, the same has not been the case for internal or internal returnee migrants. In the Southwest

<sup>7</sup> World Bank Group, "Policy Note 2, Internal Climate Migration in South Asia" *groundswell: Preparing for Internal Climate Migration*, 2018.

<sup>8</sup> Bangladesh Bureau of Statistics, *Population Distribution and Internal Migration in Bangladesh*, BBS website, 2015.

region, this is further complicated by the region’s greater vulnerability to climate change. In this background, the objectives of the current study are the following:

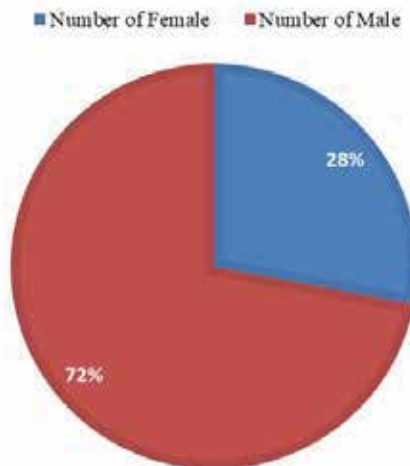
To understand the impact of COVID-19 on the socio-economic situation of the internal migrants and their families;

To identify potential actions that could contribute to their coping and adaptation by enabling them to reintegrate into income-generating activities.

**1. 2 Methodology**

We focused on the Khulna-Bagerhat region and centred explicitly on Mongla to conduct a rapid assessment of the situation of migrant workers. The returnee migrants are usually dispersed over a wide area. They are not well-connected to modern information and communication technology that could render them easily identifiable and available for communication. Given the challenges of identifying and communicating to the potential respondents, an enumerator was posted to Mongla to visit the locality and identify returnee migrants, mainly from working-class neighbourhoods. The enumerator collected the names and contacts of the returnee migrants from the ground level. There were efforts to include women workers, though an equal proportion was not necessarily maintained. We also contacted the local authorities and other stakeholders to integrate their responses into the overall assessment. However, gathering data from the concerned local authority was pretty challenging.

Figure 1 : Distribution of respondents by gender



Due to the difficulty of finding returnee migrants owing to their marginality and the pandemic situation, random sampling was not possible. Instead, convenience sampling was followed. In some cases, snowballing or referrals were used for finding migrant workers and suitable local representatives.



We conducted a telephone and ground-level survey with that sample of the returnee migrants. We developed a questionnaire and had a pilot survey to test the questionnaire. The questionnaire was subsequently updated to include the valid parameters of interest.

Both qualitative and quantitative data were collected. Collecting precise quantitative data was difficult as respondents tended to give broad answers. The qualitative data was more available and helped form a deep understanding of the respondents' situation.

## 2. Analysis of Information

The interviews offer a rich array of primarily qualitative and quantitative information. The information can be organised into pre-COVID, post-COVID, and analysis of critical factors.

### 2.1 Pre-COVID Situation

Out of the 25 workers, we find the following distribution of jobs. Most of the migrants were RMG workers during pre-COVID times and have subsequently lost their jobs or were temporarily laid off. It points to the economic shock of COVID-19 in the Bangladeshi RMG sector.

*Table 1 : Pre-COVID Sector of Employment of the Respondents*

Pre-COVID sector of employment	Number
RMG	15
Construction or sanitary	12
Electric	2
Other manufacturing firms	1
Shipping and boat	2
Fishmonger	1
Retail	2

Regarding pre-COVID job locations, we find that most workers worked in Chattogram, followed by Dhaka. It is correlated with the predominance of RMG workers among the sample since most of those working in these large cities are RMG workers.

*Table 2 : Pre-COVID job location*

Pre-COVID job location	% of respondents
Chattogram	33
Khulna	10
Dhaka	23

Barisal	10
Gopalganj	10
Jashore	7
Satkhira	3
Pirojpur	3

The jobs of other earning family members are of a varied range. Some were migrant workers, while others worked in the home town or village. Seven female respondents had working husbands, and two male respondents had working wives. Six respondents had their fathers employed in some work.

Most workers earned monthly incomes between BDT 10,000 to BDT 20,000.

*Table 3 : Pre-COVID income range of respondents and their family members*

Pre-COVID income range	% of respondents	%of respondent's family members
up to 10,000	22	19
10000 to 15000	35	56
15000 to 20000	26	19
20000 to 30000	4	6
above 30000	13	0

## 2.2 Post-COVID Situation

Agriculture, gher farming and driving have emerged as essential livelihood options for the workers, sectors which are traditionally reserved for men. A significant percentage of migrants are now unemployed, and it is women who preponderate among the unemployed section.

*Table 4 : Current employment (disaggregated by gender)*

Current employment	Women in %	Men in %
Back to previous work	0	3
Agriculture and fisheries [farming, trading, etc.]	3	34
Driving [autovan, motorcycle]	0	13
Electric work at the village	0	3
Ship worker	0	3
Unemployed	21	10
Shop worker	0	3
Sewing	3	0

The loss of income of the workers has been quite significant. More than 50% lost 60% or more of their family income.

*Table 5 : Income loss of respondents*

Income loss in percentage	% of respondents
0-30%	0
30-60%	48
more than 60%	52

The loss of family income has hit the disposable fund for necessary expenses. As we will see, the lack of public grants and institutional credit pushes many families to borrow from informal sources to meet the gap between disposable income and necessary expenditures.

### **2.3 Understanding Adaptive Capacity of Respondents Using Sustainable Livelihood Framework (SLF)**

In analysing the vulnerability of the returnee migrants, we would use the well-known Sustainable Livelihood Framework (SLF) by DFID. The SLF helps us conceptualise the vulnerability context, livelihood assets, transforming structures and processes, and potential outcomes. Adaptive capacity is conceptualised under the SLF in terms of the following five assets or capital:

- **Physical Capital:** structures, machines, equipment and so on owned by a person or household. The respondents hardly owned much physical capital except for some who owned a house. A few owned some transports or equipment. Limited ownership of physical capital also hampers potential income-generating activities.
- **Natural Capital:** natural resources at their disposal, including trees, ponds, fertile soil, and so forth. Most respondents have no land or very small plots of land or a pond. The limited natural capital doesn't allow them to survive based on agricultural activities on their own farmstead.
- **Social Capital:** social connections that can help access support and resources. Most respondents do not have beneficial political or social relationships with the powerful and the rich who could secure more significant aid and support for them.
- **Financial Capital:** financial resources that they have access to. Most respondents would not receive any bank loan as they do not have enough collateral. On the other hand, NGO loans were often insufficient to meet their needs.
- **Human Capital:** education, health, skills and so forth, which make them competent for sustainable livelihood. Most of the respondents have minimal education. Their professional skills are mainly concentrated around the specific jobs they used to perform in their previous jobs. Moreover, their offspring's education was also hampered due to the lockdown. Malnutrition

is a serious concern for Bangladesh, and it is unevenly distributed among children, and often vulnerable women are primary victims of malnutrition.

The shocks here are caused by the COVID-19 pandemic and the resultant economic crisis.

The respondents faced Livelihood Disruption due to the COVID pandemic. It posed a severe shock for which they had limited adaptive capacity.

## **2.4 Gender Dimension of Unemployment**

Women have been most devastatingly affected by the pandemic, as many have fallen out of the formal labour market and are now unemployed. Women workers who are now settled into unemployment don't see any prospect of reemployment. Most of them mention their childcare responsibilities as the reason they foresee themselves working from home in the near future. Thus, the uneven distribution of reproductive labour is hampering women's participation in the productive formal sector. Loss of formal employment and wages also threatens the loss of power and autonomy for women in the social and family spheres. In brief, there is a risk of re-traditionalization of gender roles unless women are reintegrated into the labour market as the country braces back for post-COVID recovery.

The survey's findings of greater unemployment among women align with the bigger picture of women's compromised access to the labour market. In general, the unemployment situation in Bangladesh is worse for women than men. ILO's Global Employment Trends for Youth 2020 (GET youth 2020) showed that some 47% of young women in Bangladesh are not employed, education or training (NEET) compared to 10% of young men.

## **2.5 Government Support and Coverage Gap**

In the wake of COVID-19, the national government allocated specific support packages for the vulnerable groups within the population. The local administration was directed to extend the distribution of certain forms of support to the needy.

However, an insignificant amount of support reached the distressed households. Most respondents did not receive any monetary support from the local administration. 25% of respondents received minuscule government support such as small food aid or little cash grants on specific occasions (e.g., Eid or other festivals). It may be mentioned that the government has a permanent program for providing food aid to the most vulnerable sections in rural Bangladesh called the Vulnerable Group Feeding (VGF) Program. For example, on the Eid-ul-Azha occasion in July 2020, the government provided 10kg of free rice to 10m people through the VGF program.<sup>9</sup> Such aids are provided in major religious festivals

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<sup>9</sup> Dhaka Tribune, "10 million people to get food aid across Bangladesh during Eid amid pandemic," July 7, 2020, <https://www.dhakatribune.com/bangladesh/2020/07/07/10mn-people-to-get-food-aid-across-bangladesh-during-eid-amid-pandemic>

(e.g., Eid, Durga Puja, etc.) as well as in the events of natural disasters. The Disaster Management and Relief Ministry play a vital role in this distribution.

*Table 6 : Government support received by respondents*

Government support received	% of respondents
None	71
Cash support (BDT 2500)	4
Food support (10 KG Rice)	21
Loan from Upazila	4

Beneficiaries need VGF cards to avail this support. Conditions for receiving VGF aid are a bit stringent. Moreover, the VGF program did not cover some distressed families in the survey.

The frequency and amount of support were too little and far between to have any real impact on their standard of living or consumption level. The government also extended direct cash support worth BDT 2,500 to a limited number of people reportedly distressed by the pandemic. However, the amount is minimal for even poor people. Moreover, the coverage of the cash aid program was minimal.

Pre-existing practices and institutions for distributing support have shaped the outcomes of the social safety programme. On the supply side, the local authorities believe there is a significant outlay of support for the distressed people. The experience of the distressed families reflects a different reality. There is a clear gap in terms of resource allocation and distribution. This gap could include political-economic context, social network factors, or something else.

## **2.6 Financing by Banks and NGOs**

Bank credit is the predominant source of financing for the private sector of Bangladesh. However, the internal returnee migrants did not have access to bank loans for want of collateral and complex procedures. The few households that owned small land assets only used those for their house. They were not disposed to offer their house plots for collateral. The migrants did not explore all possibilities of bank finance either, the presumption that they would not be able to avail or utilise bank finance effectively.

The BB statistics show that the disbursement of loans to the Cottage, Micro and small units have been increasing (Table 7).

*Table 7 : Working capital loans for CMSMEs*

Total package amount in BDT crore	Disbursement up to June 2021 in BDT crore	Disbursement in %	Total amount of disbursement to Women Entrepreneurs in BDT crore	Total no of beneficiary entrepreneurs	Total no of beneficiary women entrepreneurs
20000	14742	73.70%	737.46	93919	5252

The segregation among cottage, micro, small and medium sector-wise disbursement is not available for the stimulus package. However, there is data on sectoral CMSME loan disbursement for the entire term and working capital loans. The highest share of the disbursed loan went to the small enterprises, which account for 57.66% in 2020 and 60.49% in the previous year. Micro and cottage enterprises received 12.40% and 0.80% share of the total loan disbursement, higher than the earlier years of 9.82% and 0.76%, respectively.

*Table 8 : Category-wise, all Loan Disbursement of CMSMEs in 2019 and 2020 (in billion BDT)*

Year	Cottage	Micro	Small	Medium	Total
2019	12.75	165.03	1016.01	485.91	1679.71
2020	12.31	190.32	885.05	447.29	1534.96

*Table 9 : Category-wise, all Loan Beneficiaries (CMSMEs) in 2019 and 2020 (in number)*

Year	Cottage	Micro	Small	Medium	Total
2019	25088	283512	424480	41041	774122
2020	42880	303310	401518	38150	785858

Because of the above, localised information/data will be essential to understand the support they need. Aside from bank loans, some of the respondents resorted to NGO loans. However, repayment of the NGO loans remained a challenge for them.

It must be pointed out that while the government and key stakeholders paid heed to the plight of the overseas returnee migrants, there was no comparable focus on internal returnee migrants. As foreign remittance constitutes one of the lifelines of the Bangladeshi economy, it is natural that there is a legitimate policy focus on overseas migrants. Many overseas migrants have had to return home, especially in the backdrop of the COVID-19. The government quickly came forward to rescue the distressed overseas returnee migrants. We would mention here a scheme by Prabashi Kalyaan Bank, a Govt. owned specialised bank, which has a specific

loan for returnee migrants: Rehabilitation Loan for Returnee Migrants. The added volume as the concessional loan for COVID-19 affected Returnee Migrants, and their self-employment and investment is BDT 200 crore (the loan guideline is attached herewith). The previous loan volume was BDT 500 crore. So, the total volume is BDT 700 crore. The interest rate is 4% (Before COVID, it was 9%). The loan can be a project loan or working capital loan/cash credit. There are 35 categories of self-employment or investment purpose (agriculture/ manufacturing/ service/ trading). BDT 2 lac is the maximum limit of the collateral-free loan with 1 Guarantor. With 1.5 times collateral, the loan can be taken from BDT 2 lac to BDT 10 lac.<sup>10</sup>

Compared to the immediate policy measures to help out the overseas returnee migrants, there has been little research and policy intervention for the internal or internal returnee migrants. It is because internal or internal migration or return migration is seen as a natural and perpetual phenomenon within the nation's border by its mobile citizens. Such a conception has a grain of truth, yet it fails to consider the linkage between poverty, migration, adaptation, and climate change vulnerability. Moreover, people's mobility itself is restricted by various factors. Therefore, it is crucial to consider the phenomenon of internal migration and return migration as separate issues in policy discussion linking the themes of COVID response and recovery as well as climate change adaptation.

## 2.7 Future Prospects of Internal Returnee Migrants

The returnee migrants are surviving in the short run with their limited savings, but the latter will deplete soon. Many workers do not see prospects of returning to their former careers. Many look forward to finding a livelihood at home in the post-COVID period. Some are sceptical about getting their earlier livelihood back, and some are hopeful that local livelihood may be preferable to their needs.

The future expectations of the internal returnee migrants are conditional upon the availability of livelihood at the local level, which in turn depends on access to income-generating assets. As we have already discussed, most internal returnee migrants severely lack the various kinds of assets (natural, physical, social, financial and human). Therefore, we explored what kind of income-generating assets they might need for a sustainable livelihood.

Most women workers look for some livelihood at home, such as sewing, poultry, handicrafts, or home-based fisheries. Some women expressed the desire for their husbands' shop or vehicles (e.g., auto vans). Men desired support for a vehicle (new purchase or repair of auto vans, motorcycle, easy bike, etc.), small

<sup>10</sup> Other notable costs are 200 TK application form fee, 1000 tk current account opening deposit, 1% processing fee, 2% service charge. If 4.8 Lac returnee migrants are considered as per CPD-RMR-RU Study, only 2.6% returnee migrants availed the concessional loan. Lack of knowledge among the returnee migrants about the concessional loan and about the bank has been highlighted as a major barrier of little utilization of the fund.

shops (saloon, clothing, etc.), gher farming employment, flower nursery, poultry and livestock, etc. Lack of cash prevents most of them from making their ongoing business profitable. What they would need to find local livelihood would be access to such income-generating small assets that could range from a sewing machine to an auto van. They would need small loans for availing of such assets. Those households with access to some assets such as a pond or an auto van often needed some stopgap cash support to activate the income-generating activities, e.g., by purchasing fish fries or a battery for the auto van.

*Table 10 : Volume of finance desired by the respondents*

Desired amount of loan	% of respondents
20k to 50k	20
50k to 100k	50
More than 100 k	30

### **3. Major Findings**

It would be helpful to summarise the findings of the challenging situation faced by the internal returnee migrants from Southwest Bangladesh centred on the Mongla-Bagerhat region. The internal returnee migrants are faced with a multi-hazard situation where poverty, climate change hazards, and insecurity exacerbate the health problems of the returnee migrants' families. The case is worsening for many of them. Some are surviving on meagre savings soon to be depleted, while others are falling into debt by borrowing from informal sources.

1. Inadequate aid for internal returnee migrants: A few respondents received occasional food or cash aid that was insufficient to enable them to have a minimum level of consumption. Although local administration made reasonable efforts to distribute allocated support, both allocation and distribution gaps seem to have affected the receipt of support by the households.
2. The unavailability of information about internal returnee migrants and newly unemployed people has been a critical problem for local and national interventions. Local governments lack essential information or database about poor households, including returnee migrants. National-level policy-making and stakeholder discussions have also lacked sufficient information about the situation at the grassroots level.
3. Distribution equity and loopholes: Local-level distribution of resources and patronage is often influenced by political-economic considerations and social networks. More accountability and information about support services could be ensured to solve these issues.
4. Unavailability of Bank Credit: Access to collateral and complex procedures deterred individuals from exploring bank loan options. The poor households



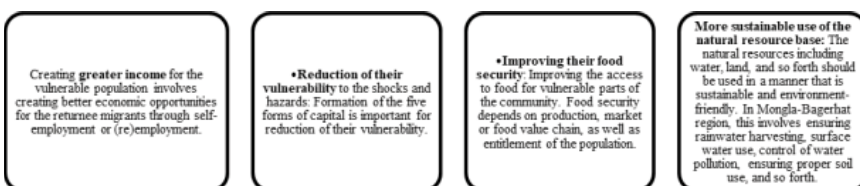
owned land was mainly for their habitat and not amenable as collateral.

5. Problems with NGO finance: NGO loan offerings often have lower amounts than candidates need.
6. Localisation of livelihood plans of returnee migrants: A significant number of the respondents expressed interest in finding some livelihood at the local level at the end of COVID-19 rather than re-migrating to their earlier workplace. Or they are aware that they will not get their job again.
7. Asset gap: What they would need to find local livelihood would be access to income-generating small assets ranging from a sewing machine to an auto van. They would need small loans for availing of such assets. Those households with access to some assets such as a pond or an auto van often needed some stopgap cash support to activate the income-generating activities, e.g., by purchasing fish fries or a battery for the auto van.
8. Exclusion and informalization of female workers: Women are now getting used to home-based work, and thus many are dropping out of the formal labour market. It is partly due to normative, gendered discrimination regarding child-rearing responsibilities. Quitting the formal labour market also impacts a woman's socio-economic empowerment and results in the re-traditionalization of gender roles.
9. Disruption of education of the young: Education has been hampered for the children of the families of returnee migrants. Enabling remote education is not feasible for poor families.

#### 4. Recommendations Toward Sustainable Livelihoods for Returnee Migrants

Drawing from the Sustainable Livelihood Framework, we could identify the fourfold objectives for improving the situation for the internal returnee migrants.

Figure 2 : The fourfold objectives for sustainable livelihood of internal returnee migrants



The response, in turn, could also combine a few fundamental approaches:

### **COVID Recovery:**

- There is a BDT 3,000 crore stimulus package for Low-Income Professionals, Low-Income Generating Individuals/Enterprises, Farmers, Ultra-Small Businesses, Poor/Ultra-Poor People, People from Deprived Communities & Deprived Women. (BB FID Circular 1 on April 20, 2020). The vehicle of disbursing loans to clients is microcredit organisations. Returnee migrants can be included in these SP. Certain relaxations, such as lower interest rates, can be announced for the returnee migrants for this SP.
- Cash and food support programs should be extended to the poorest people, including the new poor. The cash support should be sufficient to cover the shortfall in their basic needs. While the economy is reopening, it is essential to maintain a certain level of necessary consumption of the unemployed and underemployed returnee workers for a successful recovery.

### **Social Security**

Social security programs such as VGF, VGD, and so on support vulnerable social groups. There is also a range of poverty reduction activities by the government.

- Most social safety net supports, such as the allowances for widows, elderly, maternity, and so forth, are channelled through Bank Asia, although there is no bank branch in Mongla. If a relevant bank branch is set up in the locality, the beneficiaries could avail the of critical government support more conveniently and transparently. The Hon'ble Mayor of Mongla could initiate the request from his end, and Bangladesh Bank could consider the matter so that the vulnerable social groups could benefit from the government's supportive policies.
- The coverage of existing welfare programs such as the Employment Generation Programme for the Poorest (EGPP) program should be expanded for the vulnerable people in these regions. EGPP provides work opportunities for two periods – each comprising three months or 100 days - in the year. The criteria of EGPP may be reviewed to see if any criteria should be relaxed.
- The government should strengthen its database or information system to track the vulnerability of ordinary citizens.
- In the local infrastructure development projects, it could be a conditionality for project approval that the projects must provide incentives or set a quota for employing local returnee-migrants.

**Climate change adaptation:** Climate change mitigation and adaptation is a high priority for Bangladesh. Adaptation activities could be tailored to the situation of the migrant workers.

**Local business development:** To ensure the sustainable livelihood of the migrant

workers, local business development in the Mongla-Bagerhat region could be an essential adaptive solution pathway.

- The workers and unemployed people should be provided with concessional loans. Government and NGOs must develop specific support programs for these vulnerable people.
- Some specific bank loan packages could be tied to local training and capacity-building programs by government and non-government organisations. It could be conducted on a pilot basis to test the efficacy to decide on eventual scaling.
- There need to be specific programs for women. There are higher risks of disengagement of women workers from the labour market. It will seriously impact women's economic autonomy, social position and overall women's empowerment.

## **5. Conclusion**

The brief study sheds light on one of the less researched phenomena of internal or internal returnee migrants. This phenomenon will increasingly assume greater importance, like climate change, and various hazards are growing threats to Bangladesh's socio-economic development pathway. Migration and return migration within or across national boundaries are not mere ordinary economic processes but can be necessary measures for adaptation. There is a small study or information base to make targeted interventions to support the internal returnee migrants. One central methodological question is whether to cover them as a separate group or subsume them under broader categories like the rural unemployed, the poor and ultra-poor, and so forth. The study points to the need to conduct larger-scale studies and interventions in this emerging policy issue to identify different dimensions of the problem.

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# COVID-19 Pandemic: Microfinance and Social Sustainability of Grameen Bank Borrowers in South-West Bangladesh

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## Abstract

*As important as social sustainability is to the sustainable development agenda, there is a lack of research to define and operationalise the concept. This research aims to add to the existing knowledge by developing a comprehensive scale for evaluating social sustainability and microfinance at the vulnerable level. We argue that a multidimensional concept of social sustainability incorporates equity, diversity, social cohesion, quality of life, and democracy and governance. An incomplete picture of social sustainability may result if these dimensions are ignored. Factor analysis examines the scale's validity, reliability, and dimensionality. Using microfinance as a case study, we demonstrate how the social sustainability scale can be used in practice. Women microfinance users in rural and coastal areas in the Satkhira District of Bangladesh's southwest were surveyed for this paper using data from a questionnaire survey that included 223 respondents from rural and coastal regions (Shyamnagar and Kaliganj Upazilas). According to this new research, improved microfinance positively and significantly impacts various aspects of social sustainability and overall social sustainability.*

**Keywords** COVID-19 · Microfinance · Grameen bank borrowers · Social sustainability · Bangladesh

## 1. Introduction

Among policymakers, practitioners, researchers, and the general public, pursuing “sustainable development” has become everyday discourse and practice. The

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concept of “sustainability” and how it might be attained is a hotly debated topic. Hence, a widely used term for low-income financial services provided in various banking and financial service methods, including microcredit, micro-insurance, micro-savings, and money transfers, is “Microfinance.” (*van Rooyen et al., 2012*). It is now considered an excellent tool for international development, particularly in alleviating poverty (Yunus, 1999). It affects sustainable development directly and indirectly (*Busch et al., 2016*). However, there are very few conceptual arguments that exist.

On the other hand, Microfinance programs can potentially achieve equitable and sustainable development (*Rahman, 1999; Stevens and Morris, 2001*). For these lucrative specialities and in consideration of their importance, microfinance has been targeted as research content for the last few decades.

In the world’s largest banking market, *Microfinance* is considered a high-growth industry serving customers (*Mersland et al., 2013*). Microfinance offers financial services to poor and low-income customers not helped by the conventional banking sector for the last three decades. For instance, in the present world, 62% of the adult population have a bank account, 51% in 2011. At that time, 2.5 billion adults had no bank account, and at present, the number of people with no bank accounts adult is 2 billion. The increase in bank account holders has been 20% since 2011 (*Kunt et al., 2015*).

Sustainable development lies in financial, environmental quality, and social development (*Rogers, P. P et al., 2005*). Economic Sustainability refers to sufficient revenue to cover the total expenses (*Mia, M. A., Nasrin, S., & Cheng, Z. 2016*). However, in some cases, the microfinance specialists believe that the microfinance institutions are giving more importance to financial sustainability. The main aim (social development) of microfinance is de-emphasised (*Louis et al., 2013*). This paper seeks to contribute in this regard.

However, the primary objective of microfinance was related to economics, but later it shifted to the social and after-development perspective (Copestake, J. 2007). However, microfinance specialists have disagreed with these objectives recently and emphasised “environmental” as the third objective (Hall et al., 2008). Consequently, “Green Microfinance” comes forth, which always tries to meet these objectives by ensuring environmentally (Green) friendly products (loans and services) and technical assistance to the poor, low and moderate-income people. Reducing poverty and financial exclusion “Green Microfinance” immensely affects environmental protection, energy efficiency, and slowing down environmental degradation. Moreover, because it is observed that low-income customers of microfinance have a strong dependency on these natural resources, which results in the depletion of natural resources, by availing of the “Green Microfinance,” they can gradually fill up the shortage and sustain their businesses. In this way, microfinance ensures the well-being of the environment, people, and humanity (*Rammaswamy A., Krishnamorty A., 2016*).

However, for Microfinance, there is still an ongoing discussion and debate between the recent financial orientation and better financial access for the root level people termed as a social mechanism (Atahau et al., 2020). On the other hand, by extending financial services to poor people, microfinance has also been an effective tool for developing the grassroots level for several years (Hudak, 2012). However, it is observed that the higher authorities of microfinance institutions are socially driven in most cases, whereas almost all the officers supposed to provide credit are financially oriented (Serrano-Cinca et al., 2015). Such shifting of motive from social to financial orientation is broadly termed the mission drift (Mia and Lee, 2017). Due to massive loan funding from traditional banks and financial institutions, microfinance institutions focus more on commercial objectives than serving the poor, leading to this mission drift. So, is needed to find empirical studies between microfinance and social sustainability to address the evidence gap. This paper also seeks to contribute in this regard.

Since the 1980s, Social Sustainability has been an overlooked aspect of three-pillar sustainable development that has discoursed economic, environmental, and social Sustainability (Shirazi and Keivani, 2018). However, in recent years, the concept, area, and ideas of social sustainability are least defined and ambiguous. Unfortunately, though, the development of the concept and definition of social sustainability was sidestepped from time to time. Still, the theories of social sustainability have been outlined as “added-on” for the development and measurement of environmental (natural resources) and economic sustainability (the basic human needs) (Magis and Shinn, 2009). However, after reviewing social sustainability literature, researchers have discovered two significant shortcomings: the theoretical deficiencies in considering the areas and the definition of the social sustainability concept and another deficiency in operationalisation and integration into planning projects (Vallance et al., 2011).

This article seeks to determine the relationship between social sustainability (equity, diversity, social cohesion, quality of life, democracy and governance) and microfinance among rural Bangladesh microfinance customers. The data was collected during the Covid period by obeying the Covid safety rules from the Grameen Bank (Noble prize-winning microfinance providing institution) customer in Satkhira, situated in the southwest part of Bangladesh. This area is a good location and a research field to examine the linkages between the variables. Bangladesh has a pulsating microfinance field and is the most climate-changing country worldwide (Fenton et al., 2017). *The country* suffers from multiple environmental and natural climate hazards, mainly flooding, affecting many countries (MoEF, 2008).

## **2. Literature Review and Justification of the Study**

Poor people and communities do not have enough food, clothing, shelter, and medical care to maintain a basic level of well-being (Kanellopoulos, 2011). To alleviate poverty, microfinance is expected to help those in need by increasing their



standard of living. There is a wide range of views on whether or not microfinance interventions have been successful or unsuccessful in promoting sustainable growth among the poor. According to the literature, a substantial increase in microfinance services effectively alleviates poverty and empowers the poor (Dunn, 2002; Cohen, 2002). The popular belief that the poor are passive recipients of financial services is a misconception in microfinance. The idea that poor people are “unbankable” was also debunked by this study (Woller, 2002). Microfinance has a long history of success, but there have been reports of cases where customers questioned the sustainability of its programs. Researchers have discovered several reasons these interventions have failed to achieve long-term success. These findings are based on research conducted in various countries. Among the issues raised were those money laundering, gender inequality, interest rates, and inter-village strife (Hulme, 2007, Haasan 2002, Snow and Buss, 2001, Floro and Dymski, 2000). Another reason microfinance has failed to achieve its goals is that the product has not been blended to consider local needs and preferences (glocal approach) (Rugimbana et al., 2005). Consumers have been accused of misusing funds intended for microfinance companies, leading to underperformance. It necessitates further research that could lead to a successful business model. Given the stake size, successful and unsuccessful strategies must be identified. This way, the best designs could be adopted and the worst ones eliminated. This study will examine the effectiveness of the formal financial sector’s strategies for sustainable growth of bottom-of-the-pyramid customers in Bangladesh’s rural microfinance programs.

## **2.1 Alleviation of Poverty and Improving Lifestyle Through Microfinance**

Over the past two decades, microfinance has progressed from being a charitable activity to an effective tool for poverty alleviation (Carlin, 2006). It has also developed into profitable business activity, with an average repayment rate of more than 90 per cent, demonstrating its success. Microfinance has evolved from a “novel” concept to a concept that has won the Nobel Peace Prize for its contribution to alleviating poverty (Rogaly, 1996; Carlin, 2006). In part because of microfinance’s low default rates and its emphasis on women’s empowerment, it has given the impression that poverty in low-income countries can be gradually eliminated by assisting customers at the bottom of the economic pyramid to obtain small loans for business purposes (Develtere and Huybrechts, 2005). Contrary to popular belief, some research has shown that microfinance hurts poverty; the burden of debt placed on low-income families has resulted in them becoming poorer due to the debt (Hulme and Mosley, 1996; Hulme, 2007). In most studies, microfinance has a negligible effect on economic development (Dichter, 1996).

Well-established financial institutions are pursuing microfinance as part of their Corporate Social Responsibility (CSR) efforts. Their firm belief will result in long-term benefits for both consumers and service providers. Access to formal

financial services allows consumers to borrow money to start their businesses and break out of poverty, which is a significant benefit. By pursuing the strategies mentioned above, these financial institutions claim that people will be more likely to adhere to corporate values and that their initiatives will better meet the organisation's and its stakeholders' needs. It is critical for a financial institution to maintain credibility and long-term viability to remain competitive in today's economy. Researchers, on the other hand, have expressed scepticism about microfinance initiatives.

## **2.2 Criticism on Microfinance**

### **2.2.1 The Absence of Sustainable Practices**

Microfinance programs face increasing criticism as their popularity rises. The critics agree that microfinance institutions can and should become financially viable. – The critics The effectiveness of microfinance as an instrument for alleviating poverty and ensuring long-term viability has been questioned in numerous locales. Given that a wide range of institutions, ranging from the richest to the poorest, engage in microfinance lending, it begs whether lessons learned from one context can be applied to another. Furthermore, because they are frequently heavily subsidised, most micro-lending programs heavily rely on donations (Adams and Von Pischke, 1984, Morduch, 1999). Microfinance programs, even if they focus on the poor, may not be cost-effective or even worth supporting to transfer resources.

### **2.2.2 An Absence of Customer-centred Strategies**

Furthermore, the micro-enterprises that these programs support can only grow at such a rapid pace that they have little impact on the poor. According to their critics, Microfinance programs cause the poor to become economically dependent on their program (Bouman et al., 1989). Some microfinance loans may not reach the poorest of the poor due to credit rationing in microfinance programs, including inequalities in benefits and loan sizes and restricted access to services (Baydas et al., 1997, Joseph, 1993). As a result, microfinance institutions (MFIs) have been accused of failing to target the appropriate customers in some parts of the world. Through the efforts of the microfinance movement, poor households are encouraged to take out loans they may not be able to pay back (Snow and Buss, 2001). According to Gonzalez Vega (1998), many people questioned the goals and expectations of the microcredit summit. While these objectives are commendable in principle, they are flawed in practice because they fail to recognise the difficulties of broadening the financial sector to include the less fortunate.

### **2.2.3 Social and Economic Problems Created by Microfinance**

Some studies have pointed to several social and economic problems in some programs. Some of these are:

- Personal use of money taken from microfinance ventures. (Hume, 2007, Bichanga and Aseyo, 2013);
- High rates of interest (Hassan, 2002);
- Risk of being trapped in a debt-to-debt cycle (Snow and Buss, 2001);
- The vulnerability of households reliant on credit (Floro and Dymiski, 2000);
- There is a possibility of free-riding and conflicts between villagers and men and women (Hassan, 2002).

There appears to be much disagreement about the potential of the microfinance movement based on the results of various studies. An investigation into the matter is necessary. Despite all of the criticisms about microfinance, this sector is growing, particularly in countries like Bangladesh, where most people live below the poverty level. Since microfinance has so many potential customers, testing its effectiveness in a country like Bangladesh is critical given its inconclusive research findings.

### **2.3 Microfinance Institutions in Bangladesh**

The 'Jobra' experiment of Mohammad Yunus and some government-led microfinance institutions emerged in Bangladesh in the early 1970s. Following these initiatives, several MFIs have sprung up in the country to serve the needy. Despite being around since the 1970s, MFIs began to increase in the 1990s and quickly spread across the country. This sector's rapid expansion has also been widely acknowledged around the world. The microfinance industry's rapid expansion necessitates establishing a regulatory framework to ensure its long-term viability. Without regulation, Microfinance Institutions engaged in numerous fraudulent activities against small depositors, leading to operational inefficiency. Weak liquidity management and a lack of transparency and reporting mechanisms also damaged the MFI's reputation.

There has been much discussion about how to regulate microfinance. Scholars worldwide have developed various options, including soft regulation, self-regulation, and prudent regulations (appropriate regulations that can sustainably guide and control microfinance operations). Substantial evidence is that both self-regulation and special regulation failed to achieve the expected growth in the microfinance industry. Sustainable development can be achieved through prudential regulation. Furthermore, it is difficult to attract capital without proper regulation. While adopting prudent regulation, however, developing countries face challenges due to inadequate information and data collection, weak accounting standards and reporting mechanisms, lack of professionalism, and political interference, among other things. 16 PKSF, Bangladesh Bank's Microfinance Research and Reference Unit (MRRU) since the 1990s and later in the 2000s, has supervised, monitored, and provided guidance to NGO-MFIs in the country. Until

2006, regulation was seen as a stumbling block to this sector's growth. On July 16, 2006, the Bangladeshi government finally passed the "Microcredit Regulatory Authority Act, 2006." Under the Act, no MFI can operate without a license from MRA. Only a small number of the 4236 potential microfinance institutions were chosen in 2007 due to the requirement of either having 1,000 borrowers or owing 40 lacs on their loans. [17].

## 2.4 Microfinance and Social Sustainability

On the other hand, social sustainability factors consist of social equity, diversity, social cohesion, quality of life, and democracy and governance (Fernández-Pérez, V., & Peña-García, A., 2021).

Figure 1: Social factors in the broader social sustainability context



## 3. Research Design

### 3.1 Data Collection

We designed a questionnaire named "microfinance and your social experience during Covid 19 periods" for surveying the microfinance customers for this study. This survey's primary purpose is to use the data as the primary data source for evaluating microfinance and social sustainability. We believe it is needed for quality and best research judgments to collect data from the respondents who live in the rural society because the individual's interpretations and values may vary for many factors from individual to individual (Dave, 2011).

To evaluate our question validity measures, we scrutinised our questionnaire's initial version by academic experts with sound knowledge of microfinance and

social sustainability. We checked and corrected our questionnaire based on their review, comments, and suggestions. In addition, before starting our data collection, we conducted a pilot survey among 20 respondents to evaluate our questionnaire's mistakes, clarity of instructions, assessment survey terminology, and response format.

Three hundred questionnaires were distributed among the women microfinance users of the rural and coastal areas of Satkhira District (Shyamnagar and Kaliganj Upazilas) of the southwest part of Bangladesh during the Covid period to maintain Covid safety rules. As a result, we received 235 questionnaires from the respondents that correspond to the 78.33% response rate. In addition, among the questionnaires received, there were 12 questionnaires unusable as missing data, which results in a usable rate of response of 74% (questionnaires).

The location was selected based on questionnaire surveys indicating the factor relation. It was a typical region, subjected to flooding, relief, and assistance supplied by Government and Non-government financial institutions. Data was available and safe, and study participants were a low danger of fatigue. Data is collected to examine the context-specific nature of vulnerability and adjustment thoroughly. Qualitative techniques and extended local existence were needed to acquire the familiarity and confidence of study respondents (Fenton, A., Tallontire, A., & Paavola, J. 2017).

*Table1: Response Category Interval*

Scale Level	Interval	Answer category
1	1-1.99	Strongly Disagree
2	2-2.99	Moderately Disagree
3	3-3.99	Disagree
4	4-4.99	Neutral
5	5-5.99	Agree
6	6-6.99	Moderately Agree
7	7	Strongly Agree

**Source:** Author's Calculation

### 3.2 Methodology

In this study, there are two parts to the data analysis. Social sustainability scale development is the subject of the first section. As recommended in the literature, we followed standard procedures for scale development (e.g., DeVellis, 2016; Hair et al., 2010). EFA and CFA are used in this study section to develop the social sustainability scale and evaluate its validity, reliability, and scale dimensionality. Related figures in the supplementary material depict the scale-development process in greater detail. Applying the proposed social sustainability scale in Bangladesh is the focus of the second part of the data analysis. Multiple regression analysis investigates the relationship between Microfinance and social sustainability.

### 3.3 Measurements

#### 3.3.1 Measuring social sustainability

After widely reviewing the literature for defining social sustainability, this paper identifies five critical factors: Equity, Diversity, Social Cohesion, Quality of Life, and Democracy and Governance. Each factor is defined in the context of relevant variables, and each variable is reflected on the survey questionnaire. For designing the questions, we have used a 7-point Likert scale. Each respondent's answer to a statement is asked to be listed in one of 7 categories, ranging from strongly disagree (rating of 1) to strongly agree (rating of 7). For social sustainability, each variable is derived from existing literature and earlier surveys (Bacon et al., 2012; Rani, 2012; Smith, 2011).

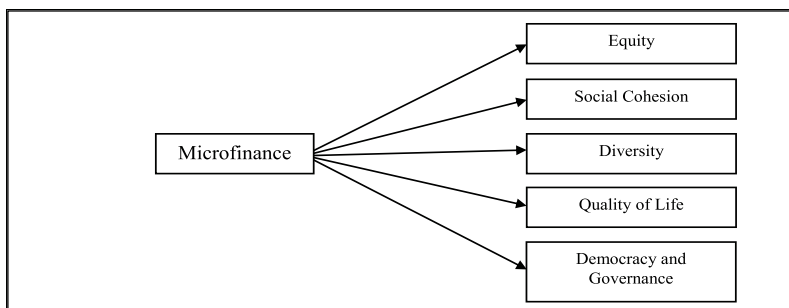
Figure 2: Social Sustainability factors



Source: Authors

#### 3.3.2 Measuring the Sustainability of Microfinance

Figure 3. Conceptual Model



Source: Author's Calculation

There are many factors for determining the contribution of microfinance (Allet and Hudon, 2013). However, especially in the country's countryside regions,

the social, economic, environmental, and demographic factors mainly affect the development of microfinance. Demographic factors consider the local population's age, gender, and occupation (Elsayed and Paton, 2009).

### 3.3.3 Measuring Sustainability Factors Between Microfinance and Social Sustainability

This paper uses the social variables as social sustainability factors with microfinance depending on the previous literature. Depending on the current findings, the researchers recommend the following hypotheses:

- Hypothesis 1. There is a significant relationship between Microfinance and Social equity.
- Hypothesis 2. There is a significant relationship between Microfinance and diversity.
- Hypothesis 3. There is a significant relationship between Microfinance and Social cohesion.
- Hypothesis 4. There is a significant relationship between Microfinance and the quality of life.
- Hypothesis 5. There is a significant relationship between Microfinance and Social democracy and governance.

## Results and Discussions

### 4.1 Modelling Social Sustainability

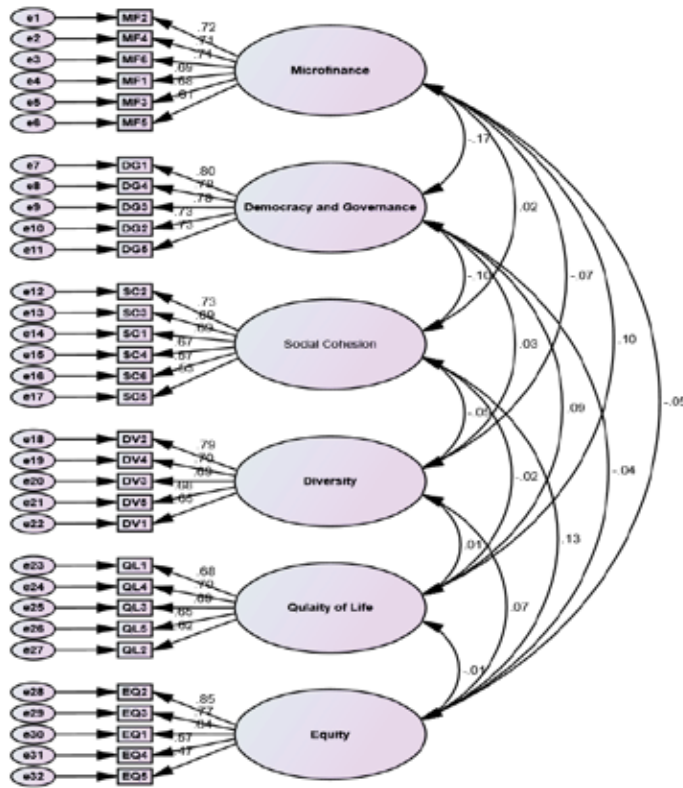
Results of exploratory factor analysis (N=222)

Factors and Items	Factor loading range	Eigenvalues	% Variance explained	Cronbach's alpha
Democracy and Governance (Items: DG1, DG2, DG3, DG4, DG5, DG6)	0.786-0.838	3.780	14.540	0.872
Social Cohesion (Items: SC1, SC 2, DG3, DG4 DG5, DG6)	0.621-0.786	3.165	12.172	0.810
Diversity (Items: DV1, DV2, DV3, DV4, DV5, DV6)	.729-.821	3.068	11.802	0.824
Quality of Life (Items: QL1, QL2, QL3, QL4, QL5)	0.710-0.771	2.770	10.654	0.802
Equity (Items: EQ1, EQ2, EQ3, EQ4, EQ5)	0.624-0.849	2.484	9.555	0.795

Extraction method: principal component analysis; Rotation method: Varimax with Kaiser normalization. KMO=0.736; Bartlett spherical test=2368.685; significance= 0.000.

**Source:** Author's Estimation

Figure 4: The structural model results.



Source: Author’s Estimation

### 4.2 Exploratory Factor Analysis (EFA)

For studying the social sustainability factorial structure, an exploratory factor analysis (EFA) is employed to explore the nature and number of the factors allied with the variables that have been observed (Hair et al., 2010). In line with Hair et al. (2010) and DeVellis (2016), we measured the overall dimensions of the social sustainability scale and refined the item pool.

The results of Table 3 show the EFA factor loadings, percentage of variance explained, and factor reliability values (i.e., Cronbach’s alpha values) for the refined scale. When viewed, it can be seen that all of the variables have acceptable loadings, with none having loadings less than 0.5. (Hair et al., 2010). Factor loading illustrates how each variable plays a significant role in the dimension under consideration. For every individual dimension that a particular variable represents, the higher the factor loading for that dimension, the more accurate that variable will be in describing it. When it comes to establishing the reliability of the various dimensions, the results show that Cronbach’s alphas all exceed the



accepted threshold of 0.7, except for the measure of the place, with an alpha of 0.69, which is just above the accepted threshold to be acceptable (Hair et al., 2010).

### 4.3 Confirmatory Factor Analysis (CFA)

A confirmatory factor analysis (CFA) is done to assess the factorial validity of the Five-dimensional model with 26 variables discovered through an earlier evaluation process known as an extraction fluency analysis. This method is done in AMOS (Arbuckle, 2006). The path diagram of the finalised social sustainability scale measurement scale's factorial structure is depicted in Figure S2 in the online Supplementary Material. Numerous indices of overall model adequacy (fitness-of-fit) indicate that the social sustainability scale fits the data well: CMIN/DF= 1.438, NFI=0.795, CFI=0.926, RMSEA= 0.44, GFI= 0.853, AGFI=827. These Five-dimensional social sustainability measurement scale measurements are within the accepted threshold (Hair et al., 2010), supporting the findings that the scale measurements fit the data very well. All five dimensions have a CR between 0.87 and 0.62, confirming their reliability and consistency, which lie above the 0.60 thresholds (Bagozzi and Yi, 1988). Additional support for a one-dimensional model is given by each variable's large and significant standardised loadings on its intended dimension.

Additionally, to evaluate the validity of the social sustainability scale, we performed convergent, content, and discriminant validity tests. Ensuring content validity, in this case, calls for applying a model that draws on a thorough review of relevant literature (Hair et al., 2010). A comprehensive literature review was employed to construct the social sustainability scale's variables and dimensions. In addition, the pilot test performed before data collection validates the developed scale's content.

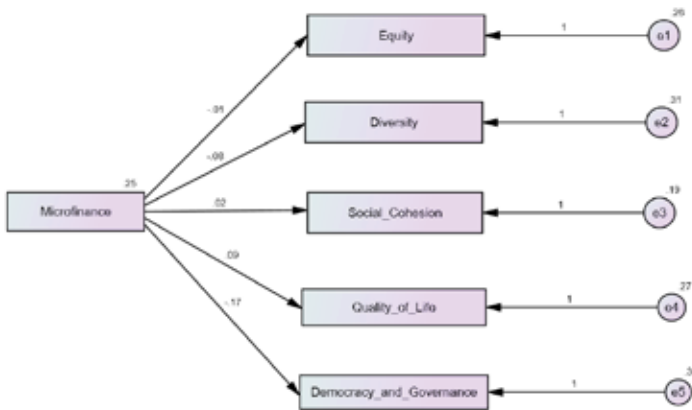
There is convergent validity because each variable's standardised loading has a large and significant effect on the intended dimension. The validity of convergent results is accepted when factor loadings are greater than 0.5 and *t* coefficients are significant, which is when their values are greater than 1.96 (Hair et al., 2010). The two dimensions are highly correlated in the first two tables, suggesting strong convergent validity. The discriminant validity analysis checks whether two dimensions and their variables can differentiate (Bagozzi and Yi, 1988). Hair et al. (2010) found that discriminant validity, measured as the individual variable factor loadings, was 0.50 or above, indicating better measurement properties than other dimensions in the measurement scale. We also applied the AVE test, first introduced by Bagozzi and Yi (1988). Discriminant validity is confirmed for all the dimensions as AVE's square root is more significant than any other factor's correlation coefficient. Overall, the results show that the model's parameter estimates are strongly associated with the variable loadings (defined by the numbers assigned to each variable in the social sustainability scale), and the five dimensions (the variables themselves) explain over 58.72% of the total variance, indicating a solid model fit.

### 5. Results Discussion

**The Relationship between Microfinance and Social Sustainability:** The social sustainability model developed at the previous analysis stage provides valuable inputs for exploring the effects of design quality on social sustainability. Ordinary least squares (OLS) regression modelling is applied for this part of the analysis because it is considered a suitable technique for providing empirical evidence on the nature and direction of the relationship between microfinance and social sustainability. Seven sets of multiple regression analyses were conducted using SPSS (version 26) to investigate the relationship between microfinance and each dimension of overall social sustainability. The possible effects of the personal factors, social equity, diversity, social cohesion, quality of life, and democracy and governance on each social sustainability dimension are also investigated. Descriptive statistics and ordinary least squares regression results are shown in the Table.

**Discussion:** The Social Sustainability scale, created and validated as part of this research, is a comprehensive and multidimensional indicator of social sustainability. Social sustainability was defined as encompassing social equity and diversity and fostering social cohesion, quality of life, and democratic governance for our second-order concept. The goodness of fit results shows that the model fits the data well and that the five dimensions, as previously mentioned, accurately represent the concept of social sustainability. As a result, this result contradicts hypotheses 1, 2, 3, 4, and 5 that suggest different dimensions of social sustainability. According to our findings, social equity, cultural diversity, and community cohesion are not strong enough to stand independently in microfinance.

Figure 5: The Structural Model Results



Source: Author’s Estimation

*Regression Weights: (Group number 1 - Default model)*

Path		Estimate	SE.	CR.	P	Results
Equity	<--- Microfinance	-.005	.069	-.074	.941	Rejected
Diversity	<--- Microfinance	-.078	.075	-1.041	.298	Rejected
Social Cohesion	<--- Microfinance	.015	.058	.264	.792	Rejected
Quality of Life	<--- Microfinance	.088	.070	1.260	.208	Rejected
Democracy and Governance	<--- Microfinance	-.172	.081	-2.114	.035	Accepted

**Notes:** P-value < 0.05

**Source:** Author's Estimation

Only democracy and governance, one of the five pillars of social sustainability, directly bear on microfinance. Finally, we discovered a strong link between democratic governance and social well-being. The findings of this study confirm the crucial role of strategies aimed at improving democracy and governance in fostering a society where people can live happily now and in the future.

## 6. Conclusion

The concept of social sustainability, an integral part of sustainable development, has been studied in numerous contexts and disciplines. There is still a lack of clear definition, conceptualisation, and contribution to microfinance from the literature review (Colantonio, 2016; Shirazi and Keivani, 2018). Using the SS scale as a comprehensive measurement model for analysing social sustainability at the vulnerable level and testing its reliability and validity using a systematic and rigorous statistical approach, this study fills this gap in the literature. It also examines how the proposed SS scale might be used to assess risk in a more vulnerable population. Additionally, we looked into the impact of less-studied urban form factors like equity, diversity, social cohesion, quality of life, and democracy and governance on Social Sustainability.

This paper furthered our knowledge of social sustainability, adding to the body of work already available on the subject. Social Sustainability is a multifaceted concept, and the proposed SS scale can help unify and consolidate its various aspects into a single framework from an academic perspective. However, despite previous studies examining individual dimensions and variables of the SS scale, they have not been studied together. We argue that ignoring these dimensions could result in an incomplete understanding of social sustainability as a multifaceted and complex phenomenon. Social sustainability measures used in previous studies have not been rigorously validated, reliable, or dimensionally analysed. This study addresses this issue. It is possible to use the SS scale to investigate how social sustainability affects vulnerable populations in the future. These studies have

received little attention and need to be explained further.

It also has a practical application in providing a more comprehensive and fine-grained view of the various social sustainability issues affecting vulnerable populations. Use the SS Scale to identify the strengths and weaknesses of vulnerabilities in terms of social sustainability across multiple dimensions.

For vulnerable people, microfinance has a significant and positive impact on five dimensions of social sustainability and the overall social sustainability of the population. There is much significance in these findings.

This study, like all others, has some limitations that can be exploited in the future. As a first possible limitation, this study's data collection of household surveys was restricted to the vulnerable people context, limiting the model's generalizability to countries with similar coastal area contexts. It is necessary to replicate this study in other countries to test its generalizability because social sustainability is affected by other countries' cultural, social, and environmental factors.

A measurement scale for social sustainability has never been attempted before. A wide scale has been developed that incorporates and categorises the most frequently used dimensions in the literature under a single umbrella, even though we cannot claim to have fully captured all social sustainability dimensions. We encourage researchers to conduct interviews or focus groups to uncover additional variables that may have been overlooked in this study to continue improving the SS scale.

Third, our literature review shows that social sustainability is a dynamic phenomenon that has evolved from traditional complex dimensions to more soft and intangible dimensions over time. A static and cross-sectional research design may not fully capture the complexity of the social sustainability concept and its constituent dimensions, we argue in this regard. It is, therefore, possible to extend the current study by conducting an in-depth analysis of social sustainability by using a long-term approach.

To conclude, we recommend that future research on the relationship between microfinance and social sustainability use a mixed-methods approach. An approach incorporating qualitative and quantitative data analysis helps shed light on what quality of design can do for people's lives and how they perceive social sustainability and quality of life. It supports social planners and policymakers in better understanding people's perceptions and expectations of the quality of life and living. It helps them address these needs more effectively and efficiently in the plans for socially sustainable localities.

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## Reinforcement of Human Capital Reducing Secondary School Dropout: An Exploratory Analysis with Post Covid-19 Implications

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### Abstract

*Human capital is one of the most critical economic growth and development determinants. The level of education and health perceives in a population. This paper interprets the challenges of reinforcement of human capital in Bangladesh and secondary school dropout as an interruption of its boosting with post-covid-19 implications. The public and private expenditures on education and health are crucial to fortifying human capital. On the contrary, school dropouts negatively affect social, political, environmental and economic development. Progress in education, especially women's education, has reached a decent level here. However, the dropout rate in secondary education is still a concern, which has not been reduced to the desired level. This research aims to understand better the undisclosed causes of dropout at secondary level schools that lead to reinforcing the human capital to face the FIRE. Seven hundred ninety former secondary school level students and 1580 parents/guardians were interviewed in this research. The method used in this study is quantitative with logit analysis. The study reveals that school dropout is negatively related to boosting Bangladesh's human capital and economic development. The study also explores that perceptions of education, working experience, lowest sociodemographic status (SDS), and family size significantly affect the probability of dropping out of school. Contrariwise, Parent's academic support, NGO membership of family members, and the government's SSNPs support significantly reduced the likelihood of dropping out. The study recommended authorities for rapid response to minimise dropouts for efficient formation of human capital, which led Bangladesh to achieve the targets of SDGs and come out a developed nation by 2041.*

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**JEL Classification** C31 · C83 · H52 · H53 · I25 · I26 · J24

## 1. Introduction

Bangladesh has emerged as the fastest-growing economy globally with an average pace of 7% GDP per year during the last decade, which has drawn a positive line of expectation in the eyes of the world community. According to Zafar *et al.* (2020), Bangladesh shifted out from the World Bank-defined list of low-income countries (LIC) to Lower Middle-Income Country (LMIC) in 2015, much earlier than the targeted date of 2021. In 2018, it met all the UN criteria to graduate from the list of LDCs to a developing country. At the beginning of the 21<sup>st</sup> century, Bangladesh's human resources potential is expected to emerge as a driving force of economic development with the demographic dividend. The potential population of a country is considered an asset. Humans are the most important and significant source of productivity and economic growth (Ali, Alam, and Noor, 2016). The growth of the national economy depends on how much its population grows into human capital. Other than economic growth, there are spillover effects and externalities of human capital formation like technological, spatial, environmental, economic and non-economic (Wilson, & Briscoe 2004). The standard of national human capital depends on the quality of education and health standard. Human capital is the knowledge, skills, competencies, and attributes embodied in individuals or groups that facilitate the creation of personal, social and economic well-being (OECD 2016).

Bangladesh is one of the most densely populated countries in the world. Bangladesh's population density per square kilometre is almost 1140 people (Bangladesh Economic Review 2021). The current population living in the country is over 168 million. It contains 2.18% of people with a tiny fraction of its land area of 147,570 km<sup>2</sup>. The population growth rate is increasing at a slower pace at an average of 1.05 per cent per year. It has been projected that the country's population will be reached its landmark of 200 million within the next few decades. The labour force participation rate has been consistent at 58 million. The unemployment figure has been around 2.6 million over the years. It has fluctuated between 4 to 5 per cent of the labour force participation rate since the 1990s. The underemployment rate from the 1990s is, on average, 25% till now (labour force Survey, BBS, 2018). The underemployment rate can be calculated by measuring visible and invisible unemployment (Islam, 2014.). The higher underemployment rate is a concern, especially for national policymakers. Most of the people among the employed groups are engaged in the informal sectors. The number will be around two-thirds of the employed person. Among the remaining one-third, half of them are regular paid workers, and the rest are working as daily labour.

Currently, the number of working people in our country is about 65 per cent

of the total population. The number of working people in Bangladesh is now 106.1 million (10.61 crore), and the actual labour force is 62.1 million (59.5 million working in the public and private sectors, the remaining 2.6 million are still fully unemployed, and 44.0 million are completely unemployed) (The Financial Express, 2020). If it is not managed correctly during this period (i.e. by 2040), the trend of economic growth will continue to shrink if other things remain the same. The population pyramid of Bangladesh indicates the future possibilities of economic growth and prospects. A higher growth rate will only ensure when the country arranges more human capital investments. According to the demographic features of Bangladesh by the level of education in the year 2016-17, around 34 million people among the 160 million do not have any education. The highest number of 38 million people has only a secondary level of education, followed by the primary pass of 24 million. Only 8 million people have higher secondary, and 4.55 million have a tertiary level of education. The gloomy picture is that only 2.85 % of the population has higher education, and the second-highest proportion does not have any education (Labor force survey, 2016-17, BBS). This situation clearly demands more allocation and distribution of education.

However, the latest estimated poverty rate reported by MoF (2020) stood at 20.5 per cent in 2019. Still, about one-fifth portion of the total population of the country lives below the poverty line. Poverty negatively impacts human capital and education, increasing school dropouts. In Bangladesh, 10.3 million students attend secondary education in over 20,000 institutions, and 246,845 teachers work at schools (BANBEIS 2020). Among 10.5 million enrolments, 5.6 million (54.41%) were girls' students, indicating that gender parity has momentum. At the beginning of the millennium, the secondary enrolment rate for girls was less than 40 per cent. Although there is some progress compared to growing countries, the completion rate at this level is still low, and the dropout rate is high, which are the significant challenges for quality secondary education and human capital formation. According to a government survey report (BANBEIS 2011), the principal reason behind the high dropout rate is financial, which comes from poverty due to low-income financial problems. However, the reports and their findings have some deficiencies. The information is based on routine quarries and an aggregate account for all school levels. The survey also included out-of-school students who did not attend school. Therefore, the reports and presented data don't have conceived the concept of whether students left secondary school mainly for financial problems or not.

The number of educated unemployment has become a serious problem now a day. Several illiterate or low schooling graduates generally leave the country for a foreign country for higher earnings. The country's primary source of foreign currency is the expatriate's remittance from abroad. Poor investment in education and inadequate expenditure from the government is stagnant and insufficient to mitigate the increasing demand for the secondary level. Many previous studies

have identified a strong relationship between financial problems and dropout. Still, little research has been conducted that investigates whether the factors affecting students to drop out vary by sociodemographic issues and how they compare, which insists present study with key attention.

The paper is organised as follows: giving an introduction on the research issue, the article provides a literature review in Section 2. The methodology is presented in Section 3. Section 4 discusses the study results, Section 5 provides policy implications, and Section 6 concludes.

## 2. Literature Review

Human capital is determined by education, training, health facility, and, if effectively, a means of production. Increased human capital indicates the differentials of income for graduates. Excessive student dropout rates shrink educational opportunities and directly hinder human capital formation. Human capital is also crucial for influencing economic growth rates (Becker, S. Gary, 1975). Laroche, Merette, and Ruggeri (2001) explain the basic features of human capital and mention that human capital is a complex and multi-faceted concept. It consists of distinctive abilities and acquired knowledge. Investment in human capital generally refers to the expenditure on education, training, and health (Goldin, 2016). Ahmed *et al.* (2010) conducted a study on ten high schools in rural Bangladesh with the assistance of a US-based NGO, Volunteers Association for Bangladesh (VAB). The study confirms the prevailing views that the main reasons for dropout are poverty and its relevant factors, which adversely affect human capital formation. Some studies use respondents and learners who are still enrolled and compare them with those who dropped out of school (South *et al.*, 2007). The usage of currently enrolled respondents and learners is inappropriate because there is no assurance that they will surely complete or graduate with the secondary school SSC program. If enrolled students leave school before passing SSC, the results will be biased. Therefore, it is better to use graduated respondents instead of still enrolled respondents than dropout students.

According to Khan (2007), the higher growth rate of East Asian countries over the average world rate during early 2000 was mainly due to the large volume of highly skilled human capital. They invested less in education, research and development, health, youth development, and other sectors. With the accumulation of a high volume of human resources, they have attracted many multi-national companies, which eventually helped them boost economic growth. About one-third of the world population lives in the Asia-Pacific region. Large varieties of development to the under-development economy are found here. Investment in education has had a more positive impact than expected which causes the enhancement of human capital (Weil, 2013). Every investment has prerequisites of an initial endowment of capital. When the return from education is more significant

than its cost, expenditure on human capital will be prevalent (Blundell, Dearden, Meghir, & Sianesi, 1999).

Kucharcikova (2014) investigates the investment in human capital as a source of economic growth. Investment in education brings intensive economic growth by ensuring higher production, services, quality, labour- productivity, cost advantages, innovation, relationship with new customers, and the competition's ability on the market. Islam (2014) examines the causal relationship between education and national income growth between 1973- 2010 using a multivariate approach. He found uni-directional causality from GDP to education and vice-versa. GDP and education can cause each other to grow. This relation indicates the long-run equilibrium relationship between GDP and the components of education expenditures. Ali, Alam and Noor (2016) found a significant association between economic growth and government expenditure on education and health in Bangladesh. Rumberger and Lim (2008) reassessed the past 25 years of research on dropouts and came up with two types of factors that anticipate whether students drop out or graduate from secondary school. They categorised the factors associated with (i) *individual characteristics*, which illustrate students' attitudes, behaviours, and school performance, and (ii) factors associated with *institutional characteristics*, which denote the respondents' families, schools, and communities.

Rahman and Al-Hasan (2018) try to estimate the return to schooling in the context of Bangladesh. He uses the quantile and instrumental variable regression models to determine the return to education. Due to the endogeneity problem, the return has been underestimated and tends to vary along with the wage distribution. He also found that females have a higher average schooling return than males. However, the returns are also high for males and females when they move an alone higher percentage of the wage distribution. For Bangladesh, people's awareness of the importance and significance of education needs to be enhanced in society to reduce the dropout and better capture the benefit of the demographic dividend and fourth industrial revolution (FIRe). Ingrum (2006) argued that if the dropout trend is not downsized or at least reduced to the desired level, the future of high school dropouts is anticipated to be grave. Therefore, Ingrum (2006) also stressed the importance of more and more research on secondary school dropouts. The outcome of further study, survey and analysis is expected to prevent the most vulnerable students from dropping out and help them stay and finish secondary school education. As a result, this could illuminate their economic achievement in the future.

It is vital to explore the factors leading to secondary school dropout in Bangladesh regarding the challenges of covid-19 pandemic devastation because it can encourage government agencies, researchers of universities, school practitioners, community organisers, and other interested parties to construct effective policies with responsive strategies targeted at preventing dropout. Taking indications from available literature, in this study, the author has employed

dropout as the instrument for measuring the causes of secondary school dropout and its consequences on human capital. Moreover, efficient strategies and policies will support reducing poverty, ensure people's welfare, and enhance the nation's economic and sustainable development in the long run.

### 3. Methodology

The research is based on quantitative data and econometric analysis. The Primary data was collected in 3 phases from 79 school catchment areas covering eight administrative divisions and topological *char*, *haor* and *hill tracts*. The baseline data identified 1,50,188 ex-students as the population for this study who enrolled in Grade 6 (in the selected secondary schools) during the 2009-2020 academic year. Two questionnaires were disseminated, one to ex-students (who had either SSC graduated or dropped out) and another to their parents/guardians. In data analysis, 790 ex-students (474 females and 316 males) were included as valid responses whose parents also (i.e. both mothers and fathers) responded to the questionnaires (1580 parents/guardians). The study used a clear definition of school dropout, supported as the selection criterion to identify the potential respondents. Besides, qualitative data was collected through FGD and critical informant interviews (KII) of stakeholders, including the head of the institutions, community leaders, and managing committee members as respondents to compare quantitative results.

### Model Specification

The goal is to analyse the impacts of individual, family and school domain of factors and Bangladesh government policy and social safety nets program variables on the probability of an individual completing or dropping out of secondary school in Bangladesh.

First, the model specification of dropout in general form is adapted from Roebuck et al. (2004), as follows:

$$D_i = f(I, F, S, GPS)$$

Where  $D$  is a dichotomous measure of whether an individual  $i$  has completed secondary school or has permanently dropped out from secondary school education,  $I$  is a vector of individual domain factors variables,  $F$  denotes a vector of family domain factors variables,  $S$  represents a vector of school domain factors variables and  $GPS$  is a vector of government policy and social supports variables.

The next step is to turn the general model into an empirical model adapted from Setyadharma et al. (2015), as follows:

$$D_i = \beta_0 + \beta_1 I_i + \beta_2 F_i + \beta_3 S_i + \beta_4 GPS_i + e_i$$

Where:

$D_i$  = 1 if individual  $i$  is a dropout, and 0 otherwise (the dependent variable).

$\beta_1; \beta_2; \beta_3; \text{ and } \beta_4$  = Vectors of parameters to be estimated

$I_i$  = Vector of individual domain factors

$F_i$  = Vectors of family domain factors

$S_i$  = Vectors of school domain factors

$GPS_i$  = Vectors of government policies and social support

$e_i$  = Error term.

$i$  = 1, 2, ...,  $n$ .

The empirical model is estimated separately in three domains of factors, i.e. individual, family and school, and government policy and social support. The vector of individual, family and school domain factors consists of 40 explanatory variables shown in table 1. The study estimate five models, and robust standard errors are applied in the regressions to reduce heteroscedasticity problems. Model one is the baseline model. It includes the 12 explanatory variables that were the most cited in previous studies in different countries, model two consists of the baseline model with other individual domain factors variables, model three consists of the baseline model with other family domain factors variables, and model four contains the baseline model with other school domain factors variables, and finally model five consists of the baseline model and all other explanatory variables.

### **Present Trend of Human Capital and Socio-economic Indicators**

Bangladesh has maintained a high growth rate over the decades amidst the slow growth in the world. According to the international monetary fund, in its World Economic Outlook 2018, global growth peaked at 3.8 per cent in 2017 and slightly slowed down to 3.6 in 2018. Bangladesh has been experiencing an above 6% growth rate over the last decade. It has been projected that the growth will continue its journey towards up-ward and expects to touch its landmark double-digit within the next few years. Bangladesh has recently been upgraded from the least developed country list to developing. The economy of Bangladesh is now 324 billion US\$. Per capita income crossed over 1000 USD in 2014. Since then, the average gain has increased, reaching a landmark of 2097 USD.

Life expectancy at birth has grown continually and reached 73 years from 65 within the last two decades. The literacy rate was only 45% in 2000, which increased tremendously to 75.2% in 2021. This figure clearly demands more pragmatic steps toward mass education. The country's positive picture prevails in the poverty rate except for the covid-19 devastations. The rate has decreased from one-half to one-fifth within the last eighteen years. Robust growth of foreign remittance inflow and export growth of the readymade garments industry leads to the downslides of the poverty rate for those days.

#### 4. Results and Discussion

Before analysing the logit results, it is required to look into the overall significance. As shown in Table 1, LR tests indicate that the model is statistically significant at the 1% level, meaning that at least one or more coefficients of independent variables are different from zero. The Wald tests also show that the model is statistically significant at the 1% level, supporting the LR tests.

Table 1. Coefficients of the Main Data Sample Logit Regressions

Variable	Model-1	Model-2	Model-3	Model-4	Model-5
<b>Individual Domain Factors</b>					
<u>Gender</u> (Female = 1, Male = 0)	-0.03 (0.16)	-0.03 (0.17)	0.03 (0.18)	0.14 (0.17)	0.06 (0.20)
<u>Age at first entry</u>	0.84** (0.41)	0.75* (0.43)	0.90** (0.44)	0.69* (0.41)	0.87* (0.47)
<u>Working experiences</u> (Yes = 1, No = 0)	0.25 (0.20)	0.36* (0.20)	0.36 (0.22)	0.12 (0.21)	0.50** (0.24)
<u>Perception on education</u> (Good = 1, Bad = 0)	0.34** (0.15)	0.53*** (0.18)	0.31* (0.16)	0.40** (0.18)	0.44** (0.20)
Home location (Rural = 1, Urban = 0)		-0.02 (0.18)			0.17 (0.23)
Repeat grade (Ever repeated a grade =1, No=0)		-0.34* (1.57)			-0.60 (1.85)
Frequency of repetition at grade		-0.54 (1.59)			-0.64 (1.87)
<b>Junior Secondary School Certificate Examination (JSC) Final Result:</b>					
Low		0.22 (0.16)			0.23 (0.18)
Average		Reference			Reference
High		0.14 (0.20)			-0.06 (0.23)
Changing school experience since primary		0.35** (0.17)			0.45** (0.20)
Deviant behaviour (No deviant behaviour=0, up to six deviant behaviour=1)		-0.24* (0.57)			-0.18 (1.18)
Health condition (poor health=0, up to excellent health=6)		0.67 (0.62)			0.92 (1.19)
<b>Family Domain Factors</b>					
Lowest sociodemographic status (SDS) (Yes = 1, No = 0)	0.43* (0.26)	0.53** (0.27)	0.46* (0.28)		0.63** (0.30)
Lowest socioeconomic status (SES) (Yes = 1, No = 0)	0.01 (0.16)	0.03 (0.17)	0.01 (0.17)		0.02 (0.18)
Household head with at least SSC level education (Yes=1, No=0)	0.22 (0.29)		0.27 (0.39)		0.44 (0.42)
Family size	0.9 (0.08)	0.11 (0.09)	0.14 (0.09)		0.20* (0.10)
Parent's academic support (no support=0, Max support=4)	-1.01*** (0.32)	-1.10*** (0.34)	-1.19*** (0.36)		-1.38*** (0.39)



Variable	Model-1	Model-2	Model-3	Model-4	Model-5
Total number of siblings in family			-0.13** (0.06)		-0.19*** (0.07)
Sibling rank in family (1=1st born, 2=2nd born, ... 6= 6th or above born)			-0.29 (0.34)		1.13** (0.51)
Number of siblings dropout			0.51* (0.27)		0.57** (0.28)
Parents are divorced (Yes=1, No=0)			0.20 (0.32)		0.23 (0.33)
Helping family with household works (Yes=1, No=0)			-0.24 (0.28)		-0.39 (0.30)
Helping family with daily business works for income-generating (Yes=1, No=0)			-0.15 (0.19)		-0.09 (0.20)
ICT and internet facilities in family (Yes=1, No=0)			0.53 (0.37)		0.67 (0.41)
Comfortable washroom in family			0.02 (0.18)		0.02 (0.20)
NGO membership in family members (Yes=1, No=0)			1.12** (0.53)		0.60*** (0.22)
Mobility to local power structure (Yes=1, No=0)			-0.79*** (0.27)		0.86*** (0.30)
Food deficit in family (Yes=1, No=0)			-0.16* (0.08)		-0.18** (0.09)
Children do not live with their parents (Yes=1, No=0)			0.60 (0.47)		-0.20 (0.51)
Differently able person in family (Yes=1, No=0)			-0.55* (0.30)		-0.42 (0.33)
Parent's participation in household decisions making (No=0, Max partic- ipation=15)			1.72 (1.33)		1.76 (1.40)
<b>School Domain Factors</b>					
<u>School location</u> (Rural = 1, Urban = 0)	0.02 (0.15)	0.10 (0.16)		0.03 (0.15)	0.14 (0.17)
<u>Relation with teacher:</u>					
<u>Not good</u>	0.01 (0.31)	0.01 (0.32)		0.01 (0.31)	0.01 (0.32)
<u>Neutral</u>	Reference	Reference		Reference	Reference
<u>Good</u>	-0.12 (0.16)	-0.15 (0.17)		-0.15 (0.18)	-0.02 (0.18)
Bullied by peers and/or teachers (Yes=1, No=0)				0.26 (0.16)	0.23 (1.20)
Major Stream of education (General, Vocational and Madrasah)			0.64** (0.28)	0.47* (0.27)	0.66** (0.30)
School's type (Public=0, Private=1)			0.50* (0.27)	-0.40* (0.25)	0.68** (0.30)
Distance of school from home				0.38** (0.17)	0.53*** (0.20)
Vulnerability of the school-going transportation				0.18 (0.12)	-0.12 (0.13)



Variable	Model-1	Model-2	Model-3	Model-4	Model-5
Log of school's expenditures				-0.29 (0.29)	-0.55 (0.33)
Teachers' quality (Good=1, not good=0)				0.22 (0.18)	-0.20 (0.21)
Government policy support and poverty improvement					
Government's Social Safety Nets Programs (SSNPs) support (i.e. Stipend, VGD/VGF)	-0.43* (0.24)	-0.34 (0.26)	-0.40 (0.28)	-0.38 (0.25)	-0.33 (0.30)
School initiatives to help the economically backward student	-0.09 (0.18)	-0.16 (0.19)	-0.01 (0.20)	-0.04 (0.19)	-0.16 (0.19)
Topological analysis of sample area					
Mainland (8 Divisions)	-0.50*** (0.10)				1.85*** (0.65)
Char area (Raumari)	-0.40 (0.28)				2.95** (5.21)
Haor area (Austogram, Itna, Nikli)	-0.41 (0.26)				4.91*** (1.64)
Beel & low land area (Chalanbil)	-0.85*** (0.28)				0.57* (1.48)
Hill area (Lama)	-1.09*** (0.37)				2.99 (2.23)
Urban area (4 City Corp., both of Dhaka, Rajshahi and Khulna)	-0.87*** (0.16)				-2.05* (1.73)
Unemployment rate				0.38* (0.23)	0.24 (0.25)
Nature of temporary employment				-0.05 (0.09)	0.03 (0.10)
Log of real minimum expected wages				0.09 (0.70)	0.15 (0.08)
Number of observation	790	790	790	790	790
Likelihood Ratio (LR)	63.77***	78.22***	88.94***	54.65***	157.06***
Wald $\chi^2$	69.43***	96.30**	112.64***	86.56***	103.03***
Link test:					
_hat	1.13***	1.18***	1.08***	1.25***	1.15***
_hatsq	0.12	0.16**	0.07	0.21	0.13

**Notes:** Dependent Variable = School dropout (Dropout = 1, Graduated = 0); \*\*\* $p \leq 0.01$ ; \*\*  $p \leq 0.05$ ; \*  $p \leq 0.10$ . Every model also includes a constant, but its coefficient is not reported here. Standard errors are reported in parentheses. Reference = base category; Baseline explanatory variables are underlined. Logit coefficients presented in the above table are obtained from the following equation:

$$Li = \ln\left(\frac{Pi}{1 - Pi}\right) = \beta_0 + \beta_1 X_1 + \dots + \beta_i X_i + \mu_i$$

Table 1 presents the estimated coefficients from logit regression. This study does not attempt to interpret logit coefficients because their interpretation is not as straightforward as in the case of OLS regressions coefficients. The interpretation of the coefficients is discussed in the next section by computing the average

marginal effects and the odds ratios. It is important to understand that average marginal effects and odds ratios summarise the results differently. This part only discusses the positive or negative signs of the coefficients of logit regressions.

The study estimated that students' perceptions about education are also statistically significant and positively impact the decision to drop out in all models. This result supports previous studies by Bergeron et al. (2011) and Kaplan et al. (1997), not by Setyadharna et al. (2015). Moreover, students who repeat a grade while in secondary school are more likely to drop out. However, this explanatory variable is only statistically significant in Model Two, not the preferred Model Five. Similarly, low grades at the previous level of schooling also contribute to higher log odds of dropping out than students who get average grades. Students with more deviant behaviour significantly increased the log odds of dropping out. Only one explanatory variable in individual domain factors significantly impacts reducing dropout. As expected, valuing school more is associated with lower log odds of students dropping out.

In addition, students who more often changed schools in the past significantly increased the log odds of dropping out. A possible explanation for the result comes from the social capital theory. The number of times a child has changed school implies social interaction with the previous community, peers and teachers are broken at each move, and the child must establish new relationships with a new community. There is not enough evidence to support that students' working experience affects the decision to drop out.

The lowest sociodemographic status (SDS) is a crucial family factor variable. It is a proxy for social contribution and describes factors of the family status. The present study finds that students dropped out of school due to their families having many children. The variable *lowest sociodemographic status (SDS)*, indicating the number of members in a family, was constructed to test whether the student's claim is supported by quantitative analysis. The estimates suggest that having a higher number of family members significantly increases the log odds of a student dropping out in all five models, and they are statistically significant.

Also, having more siblings who dropped out of school is likely to increase the log odds of dropping out. The presence of siblings who dropped out is likely to provide a role model that encourages other siblings to leave school. This study does not find any evidence that *helping family with household works* variable and *helping family with daily business work for income-generating* variable is associated with the log odds of dropping out. Further, no evidence supports the correlation between parents' participation in household decision-making variables and dropouts.

Another vital family domain factor variable is the *lowest socio-economic status (SES)*. It is also a proxy for poverty and describes factors of the family's economic status. The survey shows that about 37% of dropout respondents said they left school because of financial problems. In addition, more than half

of respondents in the qualitative analysis also stated that financial problems are the main reason for leaving school. The quantitative analysis shows that students from families with the lowest sociodemographic status are more likely to drop out than SES (see Table 1). The variable is statistically significant in baseline model One and preferred Model Five. The findings from the quantitative analysis strengthen those from the qualitative analysis. There is strong quantitative evidence that poverty affects student dropout.

The qualitative analysis found that most of the respondents' parents only hold a primary school level of education or less. Therefore, there may be a relationship between parents' low education level and their children's decision to drop out. A variable named Household head with at least SSC level education was created in the quantitative analysis. In all models, household heads with at least SSC level education are correlated with lower log odds of students dropping out. Therefore, the quantitative findings strengthen the qualitative results. Educated parents or caregivers who benefited from education themselves will protect their children from dropout as they believe that investment in their children's schooling will produce benefits in the future.

The results also indicate that parents' higher support of students' academic activities significantly reduces the log odds of students dropping out in most models, especially baseline Model One and preferred Model Five. Concerning social capital, it has been discussed previously that parents' academic support is one form of social capital. As proposed by social capital theory, the positive attention given by parents to their children is essential for transmitting available human, social and financial capital to children (Teachman et al., 1996, p. 774). This result indicates that parents play an important role in keeping their children in school. Therefore, it is recommended that the mother preferably be the main person in charge of the family to show strong and positive relations with her children.

The estimates for school domain factors indicate that in some models, mainly in preferred Model Five but not in baseline model One, students from urban schools have significantly higher log odds of dropping out than those who studied in rural schools. Furthermore, in two models, not including the preferred Model Five, students who have a bad relationship with a teacher are likelier to drop out of school. In contrast, in all models, it is shown that students who have good relationships with teachers are more likely to stay in school (in comparison with those who only have a neutral relationship with teachers). This result supports the social capital theory that the density of positive interaction between teachers and students improves students' human capital accumulation.

Although there is no evidence of a robust quantitative relationship between students who have a bad relationship with a teacher and dropouts in some models, the qualitative analysis shows that some students claim they left school due to having problems with teachers. The quantitative findings show solid evidence that good relationships with teachers reduce the log odds of dropping out.

Being bullied by peers and/or teachers significantly increases the log odds of dropping out. This result aligns with Townsend et al. (2008) and Setyadharma et al. (2015). There is not enough evidence that *private schools*, *distance to school*, *school expenditure* and *teachers' quality* variables significantly affect the log odds of dropping out. This study does not find evidence that school expenditures impact dropouts. Likely, the respondents did not give detailed expenses when filling in the questionnaire as they had forgotten the actual spending.

The government's Social Safety Nets Programs (SSNPs) support (i.e. Stipend, VGD/VGF) for poor students significantly reduces the log odds of dropping out in all models. The Schools' financial and other initiatives to help the economically backward students also reduce the odds of dropping out in all models. The result supported a previous study by Khandker et al. (2021), which concludes that stipend significantly affects student dropout at the secondary school level. They reiterate that the subsidies to female secondary education through stipends and other forms of assistance are considered a direct and observable way to incentivise parents to educate girls at that level where gender disparity is high and persistent. The perceived wisdom is that since educating girls at the secondary level is costly for parents in developing countries for different reasons (both social and economic), providing subsidies for girls through stipends would be a way to promote secondary education, thus reducing dropout and persistent gender gaps.

Also, in the preferred Model Five, students in the southern part of Bangladesh are less likely to drop out than their northern counterparts. That is mainly because the job opportunities in the south part of Bangladesh are lesser than in the north region. The children work there in families, neighbouring farmland, stone quarries, etc. One explanatory variable with an unexpected sign is the real minimum wage. A study by Montmarquette et al. (2007) in Canada opine that minimum wages significantly increase the log odds of dropping out, while this study shows the opposite. Montmarquette et al. recommend that a high minimum wage in Canada leads some students to join the labour market because they think it is unnecessary to continue their studies if they can earn a high income.

In contrast, minimum wages in many districts in Bangladesh, including in city areas, are low compared to white-collar jobs and do not attract students to withdraw from their education. An increase in real minimum wages means additional income for families, so there will be an extra share of income for children's education. It might lead poor students to stay in school.

Most of the average marginal effect values (separately estimated) are similar to the coefficients from OLS regressions, except for the *perception of education* variable, for which the average marginal effect values are slightly lower than the OLS coefficients. The estimates can imply that female students have an eighty-seven percentage point higher probability of dropping out than male students on average. The difference between female and male students indicates that student dropouts are not less likely because of gender bias in Bangladeshi culture, but instead could be due to

the discrimination against female students in school. The government recently enacted law '*The Child Marriage Resistant Act 2017*' and corresponding rules 2018 replacing the old Act of 1929, negatively influencing female dropouts. The marriageable age for females and males is 18 and 21, respectively, which is discriminatory. Its '*special provision*' allows child marriage with the court's permission, and the consequences are reflected in the education of the girl's students.

## 5. Policy Implications

Firstly, enhancing public education expenditure and the private collaborative fund is a core issue to boost human capital. A paradigm shift is expected in the education sector by achieving the targets of SDG4 through implementing the 8<sup>th</sup> Five Year Plan (GED 2020). One major constraint that education and training face is the scarcity of resources (public and private investments). The government targeted to increase allocations through the 8FYP. However, the PP2041 set ambitious targets of increasing government spending on education to 4% of GDP by FY2031 and 5% by FY2041. Following those targets, government spending aims to raise 3.5% GDP by FY2025. Currently, government education spending is low, introduced at a maximum of 2.47% in 2017, but downsized again to around 2% of GDP in the following years. The private sector investments need to be encouraged for quality education. These initiatives help recruit quality teachers and need base infrastructures and an enjoyable education environment.

Secondly, the covid-19 made the education system more vulnerable through increasing poverty and school dropout. After reopening, the absence increased to 23,553 students on the second day of the 2021 SSC exams, indicating its severity and the situation of other grades (The Daily Star 2021). So, the educators and parents desire an integrated recovery plan. To become a developed country by 2041, SDGs are the upward stepping stone where quality education is the lifeblood, and human capital is the main driving force. In this context, realising the findings and recommendations of the present study, it is essential to initiate and implement the reform program on a priority basis to enhance the quality of education and raise the level of human capital in the short, medium and term basis. Multiple financial and non-financial interventions are required to reduce the school dropout, boost human capital, and recover from the loss caused by the covid-19 following lockdown. Moreover, there are some challenges in the base pillar of quality education in achieving international standards and commitments.

Thirdly, the present study reveals that about 37% of dropout respondents said they left school because of financial problems. On the other hand, more than half of respondents in the qualitative analysis also stated that financial problems are the main reason for leaving school. The harmonised stipend program of the government needs timely disbursement of the vulnerable students.

Fourthly, according to the present study, most household head belongs to low literacy skills and education and tiger parenting behaviour, which leads the students

to become an early dropouts. The research reveals that the education of 92.1% of the household head is below SSC, and 0.9% graduate and above qualifications. Due to low schooling, the parents cannot guide their children properly. In this regard, alternative parenting care (APC) is required. Through this initiative, students can enjoy parenting support in academics and finances. Some schools rely only on government assistance which does not cover all poor students who need aid, so sometimes they cannot keep needy students in the schools. The school may have encouraged the community and teachers to assist some money from their own or their monthly earnings to support poor students, i.e. philanthropy work. The amount of money given for helping poor students is flexible, and it is up to the teachers how much they want to contribute. It is important to note that participation is a collective action, meaning that a teacher is not solely responsible for a student who needs financial support. Instead, all money collected is managed by school administrators and allocated to boost students' vulnerable areas. The schools in different regions have this initiative on a shallow scale, covering only the community's financial support. They support voluntarily, not under a broad policy guideline that can reduce the poor students from the curse of dropout. Similar practices also exist in other schools, and I call it a '*Charitable Parenting Program (CPI)*' program. It is recommended that every school adopt similar CPI programs.

Fifthly, it is essential to strengthening ICT use to ensure quality education. Now, most teachers enable multimedia or PowerPoint presentation in their classroom practices instead of using large-scale teaching tools and assessments. Some alternatives need to innovate to cover the students with technological constraints; mobile apps and recorded videos can be helpful in this regard (Ahmed 2020).

Sixthly, a new curriculum will be introduced in the immediate years. According to the outline of the new curriculum, the essence and vision of the contents embedding 21<sup>st</sup>-century skills and competencies seem promising (NCTB 2021). It should have a target and plan to address the most vulnerable economically backwards learners, let alone technologies. Besides, content and adjust the teaching process so that the students with disabilities, from ethnic minorities, students living in rural areas and madrasa students can be reached equally effectively.

Finally, some quality issues like bullying (by peers/teachers) are expected quick responses that have slow but severe adverse effects on education. There is a general perception that most bullying cases become unidentified due to the proper knowledge of the teachers and parents. Being bullied by peers and/or teachers significantly increases the log odds of dropping out. Recently, the High Court also ordered a probe into the death of a ten grader student due to bullying (Dhaka Tribune 2021).

## **6. Conclusion**

The research reveals that financial problems are severely engaged in increasing the dropout rate, and non-financial factors play a disastrous role and lead the academic life of the dropout student towards an unhappy end. The study realises the economic effect of school dropout and its consequences on human capital development and the future economic development of Bangladesh. The study also explores that poverty is not the only reason for school dropout. Other reasons also contribute to an increase in the likelihood of school dropouts. To achieve the targets and goals of SDGs by 2030, there is no alternative but to reduce dropouts to ensure quality education for all. The study suggests authorities for rapid response to reduce dropout, which leads Bangladesh to achieve the targets of SDGs and eventually come out as an upper-middle-income country (UMIC status) by 2041.



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## Life and Culture in COVID-19: A Study of Tipra Community in Rural Comilla

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### Abstract

*The study was undertaken to analyse the life and culture of the Tipra community of Camilla Sadar Upazila, Bangladesh. In the collection of data, both qualitative and quantitative methods were used. The study revealed that the Tipra community in the locality enjoyed an identical culture compared to other ethnic groups. The urbanisation process has changed their identity and social life in line with the global forces. The study suggested more logistic support and cooperation retain their own culture in a diversified way in the locality.*

**Keywords** COVID-19 · Tipra Community · Ethnicity · Culture · Globalisation

### 1. Introduction

From history immemorial, the blending of cultures has occurred in South Asia. These processes continue in South Asia and the global world. It is long a tradition of humankind and manifests deep-rooted heritages at local specific character contributed by the people of different origins. Bengal or Bangladesh is also included in that intermingled cultural heritage. Most people of Bangladesh belong to Bengali or Bangladeshi, constituting 98 per cent of the total population. Alongside, about 13 indigenous ethnic communities live in Bangladesh. Therefore, Bangladesh is a country of multicultural heritage. However, Bengali culture is the primary and dominant feature of this country. Recently awareness of the identity of the ethnic communities has created new dimensions in politics in the national, regional and globalise world. The indigenous people are likely to preserve their own ethnic identity, contributing altogether to global culture and civilisation.

The ethnic people of Bangladesh are generally characterised by their community living. The colonial regime changed the social stratification of the

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South Asian people. The partition of the South Asian subcontinent had also changed the community lives and brought new challenges for many identity-based communities. Apart from these, the livelihood pattern of ethnic people is being changed due to the shifting socio-economic perspective of Bangladesh. Gradual linkages of the ethnic people to Bangladesh's broader society have occurred due to the social inclusion process of development and mobility. Economic and social exchanges are increasing between the Bengali and ethnic people of Bangladesh in the span of the progress of development processes. The Tripura or Tipra ethnic community is one of the major ethnic communities of Bangladesh. The Tripuris live on the slopes of hills in a group of five to fifty families. Their houses in these areas are built of bamboo, or as it is called in *Kokborok* and raised five to six feet in height to save themselves from the dangers of the wild animals.

Nowadays, most households of this community live on the plains and erect houses like the plains people, adopting their cultivation methods and following them in other aspects of life such as dress, manners, and cosmetics. Tripuri women wear a scarp, called *rignai*, which reaches down just below the knee. They weave a small piece of cloth in their loin-loom, which they call *risa*, and they use this small piece of cloth as their best garment. In Bangladesh, the Tipra people live scattered in the Chittagong Hill Tracts. However, most Tipra people live in Ramgarh under Khagrachari Hill District. The Tipra is one of the major ethnic communities of Bangladesh and resides in Chittagong Hill Tracts, Chittagong, Comilla and other regions of Bangladesh. The origin of Tipra derives from the Tooy-Pra word. Tooy is a Sanskrit word which means river or water. Pra means meeting place. Therefore, those who lived in the meeting place of the river they called Tooy – Pra eventually transformed into Tipra (Sattar, 1995).

In Comilla, they live with neighbouring Bengali people in plain lands and other ethnic communities in the hill tracts. Due to their relatively small size compared to other races and ethnic identities, they are at the juncture of the acculturation process, where a small group of subcultures submerged with dominant co-residents culture in their living patterns. Generally, ethnic communities are culturally conscious, governed by a headman, have kin group-based social relations and are characterised by a subsistence economic system. Today, most of the *Hindus* of Tripura and Bengali *Tripuri tribes* are adherents of *Animist-Shaktism, hybrid of Hinduism*. 'Tripura' is the name of a Bengali Hindu form of *Durga*. Bengali Brahmin priests (called *chantais*) are regarded as custodians of *dharma* and occupy an exalted position in Tripura Bengali society. Essential gods are *Shiva* and *Tripureshwari* (patron goddess of Tripura and an aspect of Shakti). Several fertility gods are also worshipped, such as *Lam-Pra* (the twin deities of sky and sea), *Mailu-ma* (goddess of corn, identified with Lakshmi), and *Khulu-ma* (goddess of the cotton plant) and *Burha-cha* (god of healing). Bengali *Durga Puja, Bijoyadosomi*, and the worship of the *Chaturdasah deities* are important festivals. The *Swarshati puja* is celebrated in a festive mood at the homesteads of the Tipra people. In all *puja* festivals of the

Tipra community, they like to slaughter a *pig*, *buffalo*, and *hen or rooster*.

The Tipra are generally *jum* cultivators, and both males and females cultivate *jum*, particularly in the Chittagong Hill Tracts. They also grow cotton trees for making thread. Tipra's dress pattern is simple, which they generally make at the houses. Ornaments are trendy among females and males. Headman plays a significant role in mitigating the disputes among the Tipra. Tipra called houses as *nok*. Overall, Tipra is simple, and sources of simplicity are found in their essential behavioural manifestation. Beggars or thieves were absent in the Tipra community (Sattar, 1995). Cultural artefacts are alive in *Tipra* communities through social communication and networking.

## 2. Objectives of the Study

In specific terms, the objectives of the study are as follows:

- i. To know the cultural practices of the Tipra community;
- ii. To identify factors of the occupational changes in the Tipra community;
- iii. To delineate their living styles, social communication and identity;
- iv. To suggest ways and means of improving the overall condition of the Tipra community.

## 3. Scope of the Study

The study was conducted in Comilla Sadar Upazila, where the people of the *Tipra* community have lived for centuries. The study was based on observation cum interview with the Tipra people, which attempted to address the livelihood patterns and social communication process. Thus the variables like livelihood, ethnic culture, social communication and network, changing ethnic communities, adaptation processes and cultural environment were incorporated into the study. All households of the *Tipra* community inhabiting the study area were considered the study's sample population.

## 4. Key Concepts used in the Study

Tipra and Tripura are the same meaning, the former is locally called, and the latter is the original term for the identity of the tribal or ethnic community. In this study, *Tipra* and *Tripura* bore the same meanings. Both indicate the Tribal community and are also called *Tripura/Tripuri*. The two approaches, i.e. culture and social communication, were incorporated into the study. *Tipra*- as a community- has a distinct culture. On the other hand, the combination of cultures directly and indirectly touches and alters the social values of *Tipra*. They are small in size, and exogenous socio-cultural elements influence the largescale.

## 5. Data Collection and their Analysis

The qualitative methods, in-depth fieldwork, observation, discussions, and case study, were used to collect data. The collected data were then narrated using the own judgment of the researchers.

## 6. Results and Discussions

**Living Styles and Identity of Tipra Community of Comilla Sadar Upazila:** Tipra of Comilla Sadar Upazila is practising the dominant Bengali cultural gamut with its own identity. The language of *Bangla* influences very much on their lives due to survival. It helps them to communicate and share with the Bengali population. Living in the relatively developed areas of Bangladesh, the *Tipra* of Comilla enjoys opportunities like urbanisation and social amenities. On the other hand, spreading out of non-farm activities also hamper their traditional lifestyles. Moreover, the demand for high valued agricultural products (cow milk, poultry, fruits and vegetables), rising land prices, and connectivity with the big cities, towns, and growth centres provide opportunities for Bengali communities and their co-resident Tipra community. However, this change and communication process has forced to eliminate the nature-dependent community living of *Tipra* and their environment.

The Study Areas and Locations of Hamlets: Lalmai Dakhin Kashar is situated at the hillock of Lalmai hill range under the Kalirbazar Union of Adarsha Sadar Upazila in Comilla district. The village is located administratively under the Kalirbazar union of Comilla Sadar Thana. The Tipra tribal inhabitants of the hamlet introduce themselves as Tripura. They also have cultural ties with their communities that live in the Indian state of Tripura. There were 15 households found in Lalmai Dhakhin Kashar hamlet; the total population was about 80. The average size of a household was 5.33. The majority were day or wage labourers - working at *Eit Vata* (brick filed); jogali (construction work as an assistant provider of inputs to the mason). The peasantry on plain land was a relatively new occupation for the Tripura/Tipra communities, although the work in peasantry was mainly sharecropping and agricultural wage labourers. They sell their labour generally at Bengali farm households. Tipra speaks Bengali fluently. At the hillock, some land owned by the Tipra households poses the small holding mainly produces paddy and vegetables. Some engage in small trade, and some supply milk to the nearby Bangladesh Rifles (BDR) campus. Therefore, milch cow rearing is one of their secondary occupations for them. Cow fattening business is also taking place in the community. They traditionally depend on natural endowments for their livelihood. Legal ownership was introduced in the land during the British Colonial Period. Before that, the Tipra community did not consider land's legal rights due to customary ownership. The king of Tripura gave rights to land in written form to the subjects or *Praja*. Therefore, now the Tipra enjoys legal rights.

Due to a pattern of careless individual behaviour, some Tipra somehow

lost their land. They called it simply 'unplanned' wish or living styles without vision. During the field visits, it was reported that the inhabitants of one hamlet, Jammura, owned 15 Kani of land. Their land is situated mainly at the hillock. Some households owned small plots of cropland land in the valley of the hillock or plainland. Tenancy pattern of cultivable land is practising sharecropping and mortgage-in. Remittances earners of the neighbouring Bengali communities offer the cropland for sharecropping and mortgages.

The major horticultural works of Tipra are orchards, mainly bamboo, jackfruits, different types of potatoes roots, etc. The households may produce more fruits like papaya, banana and other fruits and vegetables. Many of the early traditions of the community have been lost due to a lack of practice. A substantial number of Tipra exodus from this land settled in Tripura state after the 1947 partition of the subcontinent. Their flight has created a vacuum for practising conventional cultural practices at large. The spirit of the socialisation process on traditional values is somehow lost momentum.

The Tipra people are changing themselves in terms of internal and external factors. In recent times the girls of Tipra are attending more schools which could contribute more to educating the children and community in future. Cow and goats graze at the top of the hillock and other available grazing spots nearby the hamlets. Suffice to say, the amount of grazing land is shrinking now due to the migration of Bengali people and the ongoing urbanisation process. However, the hamlets of Jammura and Dhakhin Kashar still have hillock grazing land. The domestic pigs of Tipra are cash husbandry. The pigs are kept on a homestead and fastened rope or chained at the corner of the courtyard of their households.

Tipra's skill in producing wine is indigenous work greatly attached to the cultural traditions. However, this locally has wine attracts some Bengali people to collect it. To reduce their hard work and depression or feel relaxed as the labourers, Tipra drinks homemade wine, which is mainly contrary to the neighbouring Bengali drink culture community.

Producing and drinking liquor is a cultural tradition of the Tipra community in the point of heritage and tradition. Traditionally, they continue to make folk or local liquor, generally non-available at the open market. On the one hand, high prices of wines in the bars of posh areas and the low prices of locally made wine attract some people to collect the Tipra-made local wine. The modern manufactured wine is also not commensurate with their cultural traditions, and the taste of the homemade wine is different and bears its cultural drink heritage. Labourers get relief from drinking liquor after their complex works. The ethics of ordinary Bengali Muslim people do not permit drinking liquor in an open place. So, there is a value-loaded life styles difference between the two co-located communities. Tipra is aware that very few households of Tipra produce wine mainly for their consumption, and the little market demand is interactive to make the local win. Other people criticise them. Sometimes police harass them.



The financial capital of the inhabitant's hamlet is low to invest elsewhere, especially in agricultural production. Rich of the hamlet is distinct due to their work at formal organisations and formal education. The hamlet has land consisting of 3.5 Kani, mainly operated by private levels. The wealthy family have an agricultural crop plot at the pathar (agricultural field). The rest of the hamlet lives with Anon ar Khayon which means bringing and eating. In other words, being alive from *hand to mouth* manifests the harsh reality of day or wage-labourers of Tipra.

The Tipra community of Comilla and their culture and communication networks: The culture and social network, social capital and network communication have been developed through the historical process of the Tipra community. It is found that although they lost their language, their cultural practices of marriage and religion are still alive.

The historical divisions in inter-community relations: To collect information on the Tipra people of Comilla, four nearby locations have been selected for documenting. These areas are hamlets, small areas with less than 60 households at the cluster of living. Tipra generally belongs to Mongoloid races, which appears visible in the facial and other ethnometrics of the Tipra people.

Living styles: The living style of the community or society denotes their livelihoods, occupational, or similar activities. It also refers to the cultural tradition and heritage of those traits passing through intergenerational mobility. Overall it indicates the complete way of life. In societal change, the Tipra also adopt a new process of living. However, the modernisation process halted some households' levels due to particular outlooks of those households. The root causes are feeling separate and dependent on nature-based livelihoods, which may be laggard. However, this is also rooted in the social dynamics and historical consequences. The ethnocentrism may mislead the social and cultural system of the Tipra. Tipra is a community capable of adapting to the process of civilisation. The activities of the Tipra community are commensurate with the reconstruction or modernisation process.

Moreover, the Tipra/Tripura/Tripuri having own civilisation and cultural traditions. Bangladesh poses mixed races and cultures, reflecting the Austirc, Dravidian, Aryan, Mongoloid, Semitic, and Nordic cultures. The modernisation and disintegration of traditional bound society gradually eroded due to the sudden shrinking of the population of Tipra on the one hand and the process of world cultural penetration on the other. Despite much confusion on the history of Tribal people living, the Tipra are very adaptive and accommodative and show their ability to be quick adopters. In the view of European value-loaded development efforts, the contemporary Tipra is not lagging as a whole.

**Housing:** The housing conditions of Tipra bear the tradition, which is climatically commensurate with the areas. With a bit of variation, the housing tradition of Tipra is similar to the houses of Bengali people. A separate kitchen is unique to the household. The Tipra of Comilla is like a relatively big courtyard. Boar shed is an additional difference from the adjacent Bengali communities.

Generally, the wall of houses was mainly constructed with muddy and bamboo. The roof was erected with tin and iron material. The door is usually made of timber, and the floor is generally made of clay.

**Cloths:** The Tipra of Comilla has lost its traditional clothes. The Tipra male folk wear shirt, trousers, lungi, Panjabi, fotua, and dhuti. Women wear shari, selowar kamij, and maxi. The rigwani is their traditional dress. However, the Tipra of Comilla lost the knowledge and skill of making it.

**Furniture and utensil:** Furniture is generally made of wood, bamboo, and other metals. Utensils of the houses are usually made of enamel, plastic, melamine, glass, and ceramic.

**Arts, song and dance:** Tipra's houses are decorated with *naksha* (design) of rice in mixed colours. Some women are free to perform dances and sing songs even before the outsiders who visit the locality, even not feeling shy to talk with them. Similarly, the male also likes to perform such events in the period Tipra, influenced by Hindi cultural expressions transmitted through the electronic media. During the festivals at the Radha Krishna Mandir (temple), the songs of spiritual origin were performed. Bengalis Hindus are the main organiser of the festivals and are also a significant part of the kirtan singers at the festivals. The famous kirtan sing performs by a group of singers, and they perform korus. The people of Tipra are generally audiences of the kirtan. Some of the mandir helpers sing kirtan. The tuneful kirtan and the religious bayan (interpretations) are the major attractions to the devotees and visitors. The Mandir offers mass lunch to the devotees and the visitors. It involved huge costs shared by donations from the Hindu community.

**Healing of ill health:** The people of Tipra use modern and folk medicines. The use of vegetation for healing is also practised. The spread of modern medicine was practised for a long, but because of poverty, the market-based medical services were difficult to avail for the Tipra community. In that case, folk medicine worked well, but vegetation-based folk medicine needed scientific exploration.

**Marriage:** By customs, mate selection for weddings among the Tipra people preferred to the same community. Male can marry other ethnic communities like Hindus. But for females, it is preferable to choose a groom from the same ethnic community.

**Inheritances of property and gender relations:** Inheritance of property is patrilineal. Women generally do not get an equal share of the father's property. Division of labour in Tipra is divided into social and gender. From the gender perspective, the Tipra women are low access to outside homework. The separate identity and the security concerns are the hindrances to taking duty to the outside.

**Livelihoods:** Hill agriculture was popular among the people of Tipra. The previous system of hill agriculture, popularly called jummu or jum, was eroded; now, they depend on non-peasantry workers at various places in the labour market. Now, they are mainly day labourers and seek suitable day labour work. Among the Tipra, few

are service holders. Outside these communities of Comilla, a few Tipras are working in high positions in government and non-government organisations. Sharecropping is the primary pattern of peasantry among them. They gathered hill potato (cassava type), bamboo shoots, fruits and animals like *sajaru* (porcupine), *bonroui*, etc.

**Social stratification:** Tipra communities were stratified by income, formal jobs and professions, education, socially linked network, gender, and behavioural pattern. Urban proximity and growing urbanisation have created opportunities for them. In this respect, the communities are divided into urban and non-urban situations. The relatively remote areas of urban hamlets are Jammura and Dhakhin Kashar. No distinct pollution and purity are found in the hamlets living. New sources of leadership emerge from the support of civil society's approval of the *adibashi* (indigenous) people of Bangladesh, NGO and development activities, and network with government administration and media. The cultural component of the Tipra attracts the press to disseminate their culture in the television and newspapers. Many tourists visit Tipra hamlets.

**Savings habits:** Savings habit is popular among the Bengali community of Tipra and adjoining locality areas. Several Samity or societies, either registered or non-registered, existed at the localities due to the Comilla development program model. However, it is found that the Tipra have less access to the farmer's cooperative system. On the other hand, they formed a Samity under the finance of government agencies. The presence of savings societies in the adjoining areas of the Tipra also assimilated the process of the savings model. They are now having access to micro-credit along with the overlapping. The nature and magnitude of poverty are different in the ethnic community. The outlooks of the governing classes are critical whether a particular group of the population segment is included or not in the target group development process. Non-economic factors of poverty are also the bottleneck for Bangladesh's development. The elimination of isolation and vulnerability can ensure only participation. Individual characteristics, as well as family position and family values, are essential criteria for poverty analysis. The poverty syndrome among the women also varies from place to community to community. Exploring poverty among ethnic communities is more related to the cultural dimension.

**Principle norms related to social order and structure:** Living through the social shared life from time immemorial is practised in the Tipra community. One elderly but knowledgeable person directs the society or community. He maintains the social order and coordinates with the neighbouring communities. Protect own culture is one of the functions of the community. If anybody violates the social order, they get a warning from society. Women are given special care in the community; they are not allowed to marry the outside community like a male from Bengali and other external communities.

**The urbanisation process and the changing living styles:** The Tipra of these places is now enjoying suburbs facilities and social amenities. The excellent

road communications and positional advantages of the Comilla Sadar Upazila give them opportunities to avail themselves some advantages for living like security-related jobs at different organisations, petty business, getting an education, and changing lifestyles. During the growing urbanisation period, they also benefited from the increase in the land price. The approximate growth centres and evolving growth centres of the living places of Tipra have also changed their attitudes despite their distinct identity. So many visitors and tourists came to see them, for which the growth of tourism could be flourished in these areas. The museum and archaeological sites preserved the ancient heritage of old Samatat and ancient Buddhist educational civilisation adjoining the Tipra's living places of Comilla Sadar Upazila. The region where Tipra is settled displays multicultural traits of Bangladesh, including the Tipra *adibashi* culture that may attract the tourists more if it offers a package of heritage, including the proposed community centre of Tipra by the Upazila administration, showing living folk traditions and its changing aspects, archaeological sites, museums, Sal forests, hillocks, and living patterns of the people who live here.

**Indigenous knowledge:** It is earlier mentioned that the people of Tipra have inherently gained the ability to make chuak /cholai mod or local win. They also make bamboo materials for household purposes and agricultural/horticultural activities. The other indigenous knowledge they practice is health medicine, rituals for marriages, birth, death, and other purposes.

**The Adaptation Process:** The family pattern of the Tipra community has changed in the last four decades, and the nuclear family system has been widely practised in recent times. The male wears a Western pattern of clothes like trousers and shirts, which indicates their attachment to the process of globalisation. They are mixing their culture with other sources of culture like Bengali, Indian, and Western. Their livelihood pattern has also been changed from hill based to the plain land peasantry, providing labour for wage-earning generally at the land-based labour market. The Tipra of these places is conscious of their land rights system. Due to Tripura Maharaja during British India, the Tipra are guaranteed their land rights. In this case, they are different from the other ethnic communities of Bangladesh, especially the northern districts of Santal and others. Their food habit has also been changed. And cassava is now an old history for their food habit.

Although slow in the process, mate selection for marriage has also changed. The young boys and girls show interest in selecting their chosen mate for marriage. Compared to the past, the Tipra people enjoy more access to formal education. The children of Tipra now know more Bengali languages than their mother tongue. The elderly Tipra are afraid of losing their language, like Kok-Borok. They lost their relative remoteness due to being densely populated by Bengalis as co-residence and next-door neighbours, especially in the Shalban Bihar areas. The Dakhin Kashar moderately separated from the Bengali neighbours; on the other hand, the Jammura notably separated from the Bengalis households.

Moreover, the Tipra hamlets are not extensively separate from the other community; therefore, they co-share the courtyards, ponds, drinking tube wells, orchards, labour market, educational institutions, etc. They more like to adopt the Hindu religious traits. Organisations from the Government and non-government sources extended their social development activities among the Tipra community. To get service delivery, they organised different groups to receive ends. They also manage their own identical folk cultural functions at the request of the Government officials. They are interested in inviting the local District, Thana officials, and other influential personalities to attend their cultural program and festivals. The district and Upazila administrations have also shown interest in participating in Tipra's socio-cultural functions and celebrations.

**Tipra People Living with Hard Works:** General masses of the hamlets lived with hard labour. One elderly Tipra said we give our labour-power to the other people's property and stakes which benefits the owner of the property or investors or alike comparable – "*Amra kaj kori operer jami ar itvatai-te, maliker lab beshi amra pai samanna ja diee amader poshai na*" (we do works in others land or brickfields, owners gets major but we get little which is not enough for a living). Providing complex labour-based livelihoods to the outside ethnic community members of Tipra is a new phenomenon compared to their history. Declining of Tipra people owing to out-migration squeezing the old patron-client relations or productive reciprocal relations at the community level. In other words, the moral community that is more reciprocal has been broken down. Rising day or wage labourers termed *onner janna kaj* (working in the other property and for other's benefit) signifies particular socio-productive relations that imply a stake less situation on the one hand and express sort of the alienated situation on the other. However, women are discouraged from working outside of the household because of fear of security and feel stigmatised. After hard work throughout the day and at the dawn of night, the homemade win drinks attract some workers or labourers Tipra. Home arrangement for that purpose requires community interaction and preparing chuak or cholai mod (homemade win), which is at risk of cultural clashes by some sections of Bengali communities. Especially gentry and Islamic religious-minded Bengalis do not like such drinking habits at the locality. Therefore, the new settlers can pressure the Tipra community by their size. Drinking Chuak endows with relief from the tiredness among the hard workers of the Tipra community. To attract the wine, some Bengali settlers came here and demanded drinks of wine -the chuak. The process of chuak making has indigenous knowledge and folk traditions. Undoubtedly, the Tipra speciality mixes indigenous intergenerational skills and bears a unique heritage.

The aboriginal Tipra makes local wine. This cultural habit gives them living energy. The scarcity of land and still land-based economic activities have created the residences' clash. Criticising wine taking is a social stigma for most people in the areas. Not understanding the different cultures prevails there, indicating the weakness of Bangladesh's multicultural patterns.

On the other hand, excessive addiction to land, money, and even simple addiction to drugs and wine are considered ethical problems. The former also conveys another form of corruption in a society that hampers the country's natural development. Clash of culture and values irrespective of class, creed, gender, and ethnicity displays various forms in Bangladesh due to power relations, ethnic-based superiority complex, scarcity of resources, and the global process's direct impact. The Tripura collectively is dispersed and perhaps lately showing their existentialism on ethno feelings. On the other hand, the Bengali community is the mainstream people of the Bengal region by adopting Western education early. The adaptability of Bengalis to other cultures is a profound feature in the past and present. The diverse nation produces the coordination of different ideologies. The ideology of animism, charbak, joino, Buddha, baisnab, Sufism, bou and others. In this process, the Bengali language is enriched by many sources. The diverse nation produces its languages through the Aryan influences on the alphabetic traditions. Racial identity played here important role in inter-social relations in terms of distance, maintaining and keeping own living by intra relations.

**Other critical social facts on the Tipra community of the hamlets:**

According to the opinions of the 'alphabets,' the Tipra community of Daudkandi and the Chandpur lost the 'alphabet' and their cultural heritage. The Dakhin Kashar village of Lalmai is now rearing the boars and porks. The Kirtan practices and performs at festivals like puja, especially the Swarshati puja in the evening. Like Hindu religions, an exception is when they practice pig rearing, indicating the lower caste in the Hindu religion. That is the potential division in the interrelations with the Hindu community. On the other hand, the neighbouring Bengali community accepts the business of boar rearing; they think if we export frogs, why not pig or boar. In addition, if we are rearing the crocodiles in a district, why not pigs

The army and cantonment administration influenced the Tipra and the Bengali communities. By expanding cantonment and security measures during the 2nd world war and the time to time following strategic points, the Tipra displaced hillock tops house dwellings and slightly down towards the lower portion of the hillock. The gradual expansion of military and border security installations and the firing range is one of the reasons for slow down the most accessible road connection to the hilltop Mandir and the locality of the hillocks at Dhakhin Kashar, its adjoining locality of the Tipra, which consists of Bengalis. The seasonal trial or mohora of the army in the locality has created expanding relations with the people. Through the Army's disciplined life and organised behaviour, the locals know how valuable, such disciplined life is in practical life. The Tipra Bajar- bears the old traditions of their market networks. It also indicates the spread market among the Tipra community. The process of globalisation touches the people who have some sort of connectivity even in the colonial periods.

The Mandir of Radha Krishna of the Hindu community and their traditional way of life influence the Tipra people. Religion symbolised unity that they valued and bonded with the Hindu community in the growth centre and the villages. It



has been observed that all regions are now changing rural-urban relations on the verge of growing urbanisation and linkages with the global centres by exporting labourers for remittances earnings. A few clashes of cultural practices and values also prevail in the locality despite global influence here on the issue of winemaking and drinking by Tipra. It is reported that even police harassed them in the face of allegations of the wine bearing. Due to demand, some Tipra may produce wine for other people. Differentiation of cultures in Bangladesh has also attracted the people in the locality.

Consequently, their hardship in life and dropping out of education are the community's public events. The tourists came here to see them; some purchased local wine in covert ways. The heritage of making wine like *haria* of santal as traditional practices was mentioned several times, and it is the distinct cultural traits and the community's skill.

*Hamlet of Salban Bihar: The duration of settlement in the Salban Bihar's adjoining areas by some Tipra households has passed 36 years. They termed themselves adibashi of the Lalmai regions and settled in Salban due to land acquisition. They purchased the land with the compensation money. What does mean Adibashi? The Tipra tells the old inhabitants. The term adibashi denotes early settlers that were original and had entitlement to land possessions. Who came first means they must be countable in the development process. But the number is the factors which happened at the Australian aboriginals. Australian Australoyed Aboriginals gradually on the process of distinct. The adjoining of Salban Bihar is now pulling the people from different areas to settle here. Therefore, urbanisation is a crucial socio-economic phenomenon in these localities. The Tipra community is also on the way to changing its social relations in two spaces - its community level and neighbouring level. Government-sponsored organisational support also extended the assistance to them. NGOs also work in the community. The availability of micro credit has been expanded at the Salban hamlets. It indicates the broader opportunities for repayment of micro-credit. The diversity of micro credit is also found in the place.*

Table 1: Socio-economic profile of Salban hamlet

Number of Families	No. of Male	No. of Female	Education scenario	What are they doing now
26	28 Majority belongs to up to 45 years old. Above 50 + of age, number is 9.	32 no. of Elderly female (Above 50+) is 5.	Children now attend the schools. Majority complete primary education	Day labouring is the primary source of income. Most creditable matter is that 3 girls are now HSC student And one is a student of MBBS

Source: Fieldwork

Land ownership patterns and impact of urbanisation: The total land in Salban is 5.5 *Kani*. This land uses as home and homestead land; therefore, the cultivable land is nil at Salban hamlet. So they (Salban hamlet) are not distinctly peasants compared to the other hamlets (especially Jammura and Dakhin Kashar). They mainly work in the services and labour-based works. On the other hand, living at the edge of the town offers them opportunities to work in the city. The number of commuters has been increasing in the recent past. Developing town is going on the locality, due to approximate of Comilla town, and other trainings and, lastly the establishment of Comilla University boost up the process of urbanisation at the locality. The whole locality is now under the *Paurashava* (municipality areas). The locality's people, including the Tipra, pass through the new lives in the urban environment. Land ownership is crucial for getting direct and immediate benefits from urbanisation because the land prices are mounting. Some Tripura has no land; they live on others' land to survive. The land losing syndrome occurs due to the pressure of urbanisation and household demographic changes. On the other hand, out-migration and service-oriented migration is the cause to minimise the stress on the land. Pull factors in migration are the primary cause of changing demographic scenarios in the Salban areas.

**Income:** While day labouring is the primary source of income among the Tipra community, the per day labour wage was Tk. 150 in peak seasons and 120 in the lean seasons in the areas (in 2007).

**Socialisation process:** Socialising of own culture is practised in the Tipra community. Fostering ethics like obeying the parents and respectfully maintaining the kin relations are some of their codes of life. The family and community valued the good advice and distinctions between good and harmful elements of the society, how to behave and poses good things and some teaching. They also teach love and teach the children and respect for the elderly. How to minimise own interest in the competitive world is also trained as practical knowledge for survival. The living mechanism is also respectful of the neighbours and their sentiments.

**Water sources:** Hand tube well water is widely used for drinking, cooking, bathing and washing. No. of ponds is declining fast due to housing and infrastructure demand at the locality. The hand tube well is supplied by the government-funded project of *Upajati Kallayan Samity* (Tribal Welfare Society).

The organisation's participation-

### **Micro Credit and the *Adibashi* Organisation**

The *Upajati Kallayan Samity* (Tribal Welfare Society) provide loan from its seed money for the welfare of the Tipra people. The organisation was formed to get assistance from the government's delivery system. Simultaneously some NGOs also operate their micro-credit in the different households. The source of micro



credit is many. A single borrower can borrow multiple sources of microcredit. The open market of the micro-credit operation is going on.

Table 2: Some of the social functions of Tipra

Social events	<i>Puja</i> , rituals on birth, a child born and died and others
Marriage	Intra community preferable
Major religious functions	<i>Puja – Durga, Swarshati</i> and <i>Radha Krishna mandir</i> festival.
Funeral	Burn the body at the <i>shashan</i> , combined with Hindu religious rituals.
Socialise rituals	Try to preserve your own cultural rituals
Attitudes towards romance	Liberal
Inter-community functions	Seek decision-making on the crucial matter through the people's representatives or knowledgeable <i>shalishkar</i> (mediator) outside the community. Significant community matters were tried to solve by the community members. Sharing the development activities with the neighbours. Tolerance shows to abstain and perform <i>dhol</i> and songs during <i>ajan</i> and <i>namaj</i> during the festivals of <i>swarashati puja</i> .

Source: Fieldwork

The *Swarshati puja* indicates their interest in education. The awareness of education has increased. Education is a tremendous upper mobility factor, although sustaining formal education is hard for the majority family of the community. Therefore, they continue to keep children's education at their level best. Expansion of urban facilities increases the number of schools and colleges in the locality. Generally, they do not go to the *madrassah*. On the other hand, *madrassah* does not include non-Muslim students.

## Relations with Bengalis

### Social Relations and Contact of Languages

Good social relations between both ethnic communities are prevailing – the majority Bengali identity and the small number of Tipra ethnic community. The Tipra of Bangladesh belongs to Bangladeshi nationality. The small community of Tipra is in transition with the process of acculturation and diffusion. The semi-pidgin trends are seen in the Tipra communities. Pidgin means a mix of languages, although they try to maintain their own language in the family and kin relations that belong to the same community. Bengali is essential for communicating to the neighbourhoods and larger society of Bangladesh. The educated Bangladeshi Tipra knows three languages: own Tipra at family and kin groups; Bengali at the societal level; and English. Some know some Hindi language due to media impact and contact with the Tripura communities in the Tripura state of India. They generally feel their marginal position in their own culture while the overwhelming majority Bengali population.

Preferences of songs: The children and the young are more adoptive to the Bengali songs. The next generations' choices are more globalised than the taboo-based choice or own cultural boundaries. It is happening due to their few numbers and separate settlement under the growing urban influences.

**Folk entertainment and *chuak*:** It was mentioned earlier that, *Chuack* is one kind of local product wine produced by the Tipra household as a part of their cultural symbol. The *chuack* is made of *chuang thui*; this cultural symbol practices drinking together *chuck*, which reduces the tiredness of the industrious people of Tipra. The *chuak* drink is together irrespective of elderly and younger male and female. Sometimes, the terrorist is forced to collect wine with the demand; some Tipra also sell the *chuak*. Gradually, the Tipra demand local wine among the Bengali people. The production of wine is restricted, and wine is prohibited under Islamic values.

The hill potatoes very much match the food habit of the Tipra Community. This variety is rare, while the forest cover has declined due to settlement and other vital installations. In this way, the wild animals also are in the process of extinction. The newly formed *Adibashi Kallyan Samity* leaders think about extending the sources of income. How to become self-reliant? The educated Tipra think them yet to receive the knowledge of development.

The micro-credit is insufficient for them, but it also helps generate some economic activities. Rearing a boar or pig 'beast' or goat is getting popular. In the long term, planting a timber-valued tree will give a benefit. Trees are gradually creating resources. In general, Tipra households have fewer plantations in the case of the Bengali Community. If a tree is planted on the occasion of a baby's born, that tree will be resourced one day, and that tree will be provided financial benefit for the baby's education and marriage. Above all, this development message is not working correctly; it is found that some inertia is prevailing in a mentionable number of Tipra households.

According to an educated Tipra, cleverness is vital for living in society's competitive and relative hostile conditions. Competitions in everywhere. It is observed that accomplished training enhances cleverness. Intelligence is desirable in the present living styles for surviving. The credit they get must invest such a profit; otherwise, repayment generally will not be possible.

**Bamboo Selling:** Bamboo represents the cultural symbols of the Tipra. Bamboo shoots are used as delicious curry for meals. Selling bamboo is a coping mechanism for a bad period of family life. The availability of bamboo depends on the ownership and access to the hillock tops' natural resources, becoming very competitive and inventing market forces. Therefore, market forces benefit those who have good entrepreneurship quality.

**Hamlet of Jammura:** Jammura is a high hillock area relatively separate settlement situated at Lalmai hillock range of Comilla district. In Bengali, *Jam* means blackberry and *Mura* mean high land. *Mura* is a popular term for mentioning

payment and essential installation. *Kotila Mura, Itakhola Mura*, is a popularly known area where the late ancient Bengal Buddhist civilisations were found. These areas are characterised by high, hilly, Pleistocene soils, cultural civilisation, livelihood, and above all, way of life. The archaeological digging and its systematic exhibit at the archaeology and Moynamoti museum sites unveiled civilisation and form of life manifestations. As a locality, Jammura is situated under the nine no. Bijoypur Union. About 14 families live in the hillock hamlets, and only two families live in the downside plain land of the hillock. Ninety people are living in the Jammura Tipra Hamlet. The community named itself Tripura Upajati.

Table 3: Population distribution of the Jammura hamlet

Age groups	Female members	Male members	Educational statuses	Major works Performed by them
Up to 15 years	10	17	Girls and boys go to schools	Student
Up to 45 years	23	23	Only 2 males passed the SSC exam.	<i>Badla</i> (day labourers) brickfield labour <i>bandak</i> (mortgage in) based vegetable cultivate. Two families have peasantry. Services also found (2 persons)
UP to 54 years	12	12	Some have a primary level (in average class 3) of education	<i>Tuk tak kaj</i> (miscellaneous works which convenient for them), light works for a family
Above 60 years	-	-	-	-

Source: Fieldwork

Generally, women do not work outside the homestead areas; they collect water and fuel energy from nearby homestead areas. Hillock and downside of the hillock flora and fauna are fuel energy sources. Once these orchards and forests belonged to common property, the property was transferred to individual property due to the increase in population and scarcity of land. The privatisation of common property loses the shared access and leads to a shortage of fuel energy. The house consists of one roof of *akchala*, generally made of thatch/paddy straw and tin. Some Tipra families have faced and are facing land dispute trouble with non-tribal families. Tipra felt they were easily cheated and misguided. The young and capable males work in the brick field in winter and usually sell bamboo in the spring. Other activities include selling labour for earth cutting, digging, and tree cutting. The total land of the hamlet is 33 *Kani*, which mainly consists of homestead and orchards; two families have the cultivable land. Generally, Tipra rents land from the neighbour Bengali people; they usually grow vegetables there. Females and males of the hamlet also grow vegetables in the homestead areas. Wood and fallen leaf used as firewood for cooking and boiling water.

**Sources of water:** Once the inhabitants use ‘*Jarna*’ or stream water. Gradually those streams were dried up. The Tipra were bathed and cleaned dishes with stream (*nala*) water. Nala means water preservation with water follow. The tribal community gradually faced a water crisis due to drying up the creeks. Such little canals stream was transformed into walkways. Only a rainy season canal with water follows is visible briefly. Because water obstacles follow during the rainy season, the water logs the areas and damage homestead areas, orchards and even houses at the downside houses of the hillocks.

Table 4: The Sociability of the hamlet

Marriage	Use musical instrument, specially <i>dol</i>
Religious functions	<i>Durga Puza</i> , <i>Swarshati Puza</i> , and <i>Kali Puza</i>
Funeral rituals	After death, Son shaves his head hair on the 1 <sup>st</sup> day; After 13 days the death, <i>shraddo</i> (a meal-sharing-based get-together) is arranged.
Birth of a child	Generally born at home, going medical is a recent phenomenon.
Mate selection	Own mate selection is now practised more than arranged marriage. However, the mates seek permission from the parents. The consent of guardians is desirable.

Source: Fieldwork

**Relation with Neighbouring Bengalis:** Bengali and Tipra maintain social, economic, and cultural ties in many spaces. The Bengalis are generally the land owner, so Tipra rent land from the Bengalis land owner. The Tipra also depends on Bengali people to get work wages.

The Bengali and Tipra males drink tea at tea stalls. They also work together at the workplace like brickfields, agricultural fields and other wage work situations. Gossip is popular recreation among the people irrespective of Bengali and Tipra. They also maintain some reciprocal relations in the community life. The hamlet of Jammura holds interrelations to community life in the area on economic and social.

The *gormil* or difference of opinions, clashes of interests, land disputes, and creating pressure on the mind are some problems facing Tipra inhabitants. Due to their lower position in the economic hierarchy, they also live tense life. The tension arises in how to live, what will be eaten, and how to get food and work. Generally, they do not find reasonable solutions for these matters.

**Access to Micro-credit:** About 13 out of 16 households (81%) of Jammura are members of the Grameen Bank. Grameen Bank borrowers spread irrespective of Bengali and Tipra people. A person of Tipra Community remarks, “avoiding loan is beneficial, because of we are so poor & ‘*ababi*’ (poor) only six months I can do work; I fill ill many days; although I get not work in many days; so how can I repay the loan.” It has been reported that many households are facing traceability with repayment.

Even they are not able to continue the loan. The staff of the micro-credit hassle the borrowers if they do not get the *kishti* or weekly repayment of instalment.

Tripura people who live in Comilla Sadar (South), Jammura, Shalban, and Dhakhin Kashar have more access to micro-credit. Radhakrishna Mondir dwellers are mainly devotees and depend on charity from affluent neighbours.

Table 5: Total population of the community at Comilla Sadar (South)

Age group (years)	Distribution of population by sex		Total
	Male	Female	
0 – 5	4	1	5
6 – 10	11	7	18
11- 15	19	3	22
16 – 20	7	1	8
21 – 25	5	2	7
26 – 30	2	-	2
31 – 35	8	5	13
36 – 40	4	3	7
41 – 45	12	7	19
45 – 50	6	5	11
51 – 55	3	3	6
56 – 60	4	3	7
61 – 65	5	4	9
66 – 70	3	2	5
70-120	2	-	2
Total	93	44	141

Sources: Survey and Fieldwork

The Tipra community has more males than females. The key informants reported that “female girls born less in recent times during the field visit.” It may have some scientific causes. The economic ages consist of 11 to 65 years those contribute more to the economy.

Table 6: Number of households in different hamlets

Jammura	20
Shalban Bihar	34
Dhakhin Kashar	26
Rada Krishna Mondir	5
BARD campus	1

Source: Fieldwork

Table 6 depicts the majority of the households situated in Shalban Bihar. This place is more congested than others. The original living can be found in Jammura and Dhakhin Kashar areas. The separateness of living is visible here.

*Table 7: Educational status of Tipra people*

The level of education	Situation
Illiterate	-
Literate- able to own signature name	100%
Primary passed	70%
Secondary School Certificate passed	18%
Higher Secondary Certificate passed	7%
Graduate passed	4%
Postgraduate	-

**Source:** Fieldwork

Traditionally the Tipra people are educated and cultured. Due to their insolvency, the level of education is not higher. However, the Tipra children attend the schools, and parents have shown enthusiasm for sending their children to the school.

*Table 8: Major occupation of the Tipra households*

Type of occupation	Situation
Services	One-third of the community population
Day labourers	Three fourth of the community population
Business	One-third of the community population
Transport labourers	Nil
Sharecroppers	One-fourth of the community population

**Source:** Fieldwork

Day labouring is the primary occupational source of Tipra. So that they live mainly hand to mouth. At the fringe of living in the towns and city, the Tipra more enter the service.

**Mobility chart:** Tipra is mainly working in the Lalmai hill areas. They work at different organisations in the Lalmai areas. They visit relatives’ houses in Chandpur, Daudkandi, and the Tripura state of India. There are relations with their cultural roots. The desire to contact more with Indian Tripura is a felt need.

Table 9: Totality of the hamlets

No. of households	84
No. of population	150
Average household	1.78

**Source:** Fieldwork

**The Notion of Tribe, Ethnicity, *Adibashi* among the Tipra of Comilla:**

The present Tipra of Comilla is not totally tribe. They lost their horticultural and pastoral socio-political organisation. On the other hand, they adopted the peasantry and non and off-farm livelihoods. The spread of education also expanded the new forms of occupation, such as service-oriented occupations. Therefore, Tipra is now an ethnic identity but absorbed occupational diversification rather than horticulture and pastoralism. Adopting the peasantry, sharecropping, day labouring, wage labouring, small trades and other services. The old pattern of horticulture is declining, and a new form of horticulture has been introduced due to agricultural globalisation. The vast competition on limited land impacts the previous living on horticulture however reduces it. The personal and organised efforts to own the hillock land have changed the livelihood pattern. The women's movement to the hill gradually shrinks due to ownership problems. The Tipra also on the pauperisation process so that they lost their traditional occupation depends on hillock cultivation.

On the other hand, they also have an edge in new occupations due to expanding urbanisation of the locality. Living at the fringe of city life, the Tipra found some jobs that halted their further pauperisation. They are in a poverty trap but have several opportunities due to expanding urban-rural linkages. The Tipra of India and the state of Tripura pass through several dimensional lives. The Indian government developed several target group approaches for oppressed classes and the Tribes. Under the schedule tribe target approach, the *adibashi kallayan samity* plays a significant role in distributive justice among the Tipra of Tripura state of the Indian union.

Despite overall cultural homogenisation, Bangladesh also displays some significant heterogeneity. Bangladesh represents a mixed culture of Bengalis and other ethnic communities that live in Bangladesh. Cultural diffusions through the global process are also shaping the Bangladesh culture. Therefore, Bangladesh culture represents the mixed culture contributed by Bengalis' ethnic identities, religions, livelihood, cultural traditions, etc. Bengali religions or beliefs are: Muslim, Hindu, Buddhist, Christian, Animist, Jainism, Sikhism, Atheist, *charbak* (the secular form of world outlook formed in ancient India), and other believers contributed to the Bengali's cultural traditions. Side by side, the tribal culture also enriches the Bangladeshi culture. The mix of cultures is still going on, particularly in the era of cultural globalisation.

The Tripura of Comilla termed them as *adibashi*. Adibashi means the first settler in the region. First settlers represent the first users of natural resources like land and water bodies. Bengali settlers' view, they also live here from immemorial time. The formation of the plain land of the Comilla is embedded in their oral folk history. The age of the history of Bengali ethnic population spanned more than five thousand years. Therefore, the debate of adibashi, obscure in nature and fact, remains in the oral history, folk traditions, nature of the occupation, livelihood patterns, migration experiences, etc. According to an anthropological point of view, adibashi refers to the specific form of the living condition of ethnic people with cultural identity, social control through band or headman, etc. Tipra of Comilla, therefore, holds several identities, which are given below:

- Citizen identity – Bangladeshi
- Racial identity – Mongoloid
- Religious identity – *Sanatan dharma* of Tripura tribal
- Tribal identity – declining trends due to shrinks the horticulture and adopt the market-based pastoral
- Ethnic identity – on the process of Tipra identity with other Tipra of own country and outside country which may be called cultural affinity
- Settlement identity – claim as *adibashi* at the hillocks.

The Tipra of Comilla maintains social and cultural contacts with the Tripura state's Tipra or Tripura communities. The tribal character still prevails in the contact people and areas of that. The hill-based horticulture and pastoral are still there. So they adopt and mix two forms of livelihood patterns. Marriage ties are the weak ties among them. Bangladesh's situation is more market-oriented than rather the situation of those areas. The Tipra of Comilla is not more communicate with the Chittagong Hill Tracts Tipra. The causes are long-distance and fewer social ties. But feeling for cultural affinity is found. Some Tipra students of the hill tracts admitted at the different colleges of Comilla visit these hamlets occasionally. Some of the leading personalities of the Tipra community of Hill Tracts also visited these hamlets recently. What is the binding force to staying in Bangladesh? According to the leaders of the Tipra community of Comilla, patriotism and nostalgia for birthplaces are the significant causes for visiting Bangladesh.

On the other hand, Indian Tripura state offers some target-oriented development and service delivery mechanisms, such as a loan for *Tripura Adibashi Kallayn* (Tripura Aboriginal Welfare). In their opinion, the health facilities are also better in Tripura. The employment guarantee scheme also operates in Tripura state. On the other hand, Tipra of Comilla feels more access to the job by Tribal quota in Bangladesh. They also observed that the majority



Table 10: Mobility Patterns

Various forms of mobility	Patterns
Horizontal	<ul style="list-style-type: none"> <li>▪ Seasonal migration</li> <li>▪ Marital ties with the same community</li> <li>▪ Attend religious festivals</li> <li>▪ Stay in the same occupation through inter-generational mobility</li> </ul>
Vertical	<ul style="list-style-type: none"> <li>▪ Downward due to loss of land and traditional horticulture</li> <li>▪ Downward due to lack of education and no access to education</li> <li>▪ Downward due to lack of physical and financial capital</li> <li>▪ Upward due to earn capability to join the labour market and service market</li> <li>▪ Upward for the new generation due to their access to education</li> <li>▪ Upward due to social development, especially credit and assistants.</li> </ul>
Intergenerational	<ul style="list-style-type: none"> <li>▪ A considerable change occurred due to switching the horticulture to the peasantry and other occupations.</li> </ul>
Intra generational	<ul style="list-style-type: none"> <li>▪ Day labourers change their earning methods and feel deprived (a form of universal alienation).</li> </ul>

**Source:** Fieldwork

The differentiation of the Tipra community of Comilla is found in occupations, education, the intensity of cultural and social contacts, ownership of natural resources, and access to formal organisations. It is found individualism is developed among them. The suspicion was also found, which may relate to inter-ethnic value differences. Micro credit is not popular among the Dakhin Kashar hamlets and Jammura hamlets. The burden of repayment and the psychological pressures are why to avoid microcredit.

Once Tipra was not interested in mixing mud or clay of the peasant's works and engaging themselves in *jum* cultivation. Now they adopt the peasantry and join the wage labour market – these are the significant change in their lives due to the historical process of Nation States on the one hand and the demographical downwards of Tripura after 1947 and rapid increases of the non-Tipra population at the locality.

The Tipra was not tribal in the past. The market also penetrated that community in the process of human lives interplays with colonial and capitalist processes. The market of Tippera of Comilla indicated how the market developed among them based on their livelihoods and other exchange-oriented activities in the past, especially in the colonial period.

**New Roles of Tipra (Tripura):** Recently, they joined trust-oriented services – at present, they perform good security personnel at government and autonomous organisations. Women and girls mainly work within family boundaries. Work as a maidservant at a Bengali homestead was found (although one case in number). Sometimes, the shalish (conflict resolution) mechanism invites the Bengali

*shalishker* (conflict mediator). The Bengali language is cemented in their lives in Bangladesh and Tripura state of India. Tipra's fluency in Bangla indicates that they are Bengalis. Only racial identity and cultural traits, including food habits, differentiate them from the Bengali communities. Marriage with the Bengalis and other factors indicate their racial uniqueness is also transitioning.

**Structural Transformation:** The differentiation of the social system of Tipra is based on land ownership, education, good social network and style of life and pattern of responsiveness to the development and the market forces. The process of pauperisation was halted by wage-based hard labour, milch cow rearing, and the rearing of pigs. On the other hand, building links through the tribal societies associations, participation in the labour market, acquiring skills and capability, and using business opportunities. The decision-making process of the Tipra shifted to those persons of the own community who thought overall development of the four hamlets.

Relationship among four hamlets- a viewpoint from the exchange network: Tipra community of Comilla Sadar Thana Consists of three significant hamlets and one portion that mainly adjoins Rada Krishna Mandir, which is the service provider of the *mandir* in terms of *Sabayet* (dominant spiritual personality of the Temple or *mandir*) functions, assistants to *Sabayet* and *mandir* maintenances. The *mandir* adjoining settlement is situated at the top of the hillock and very near Dhakhin Gasha.

Relationships of these hamlets occurred in marriage, ceremonial functions, consulting and decision-making. The *puza* of Radha Krishna Mandir is an excellent opportunity to interact with each other. At the *puza* festival, the *pujari* (*puza* performers) participation come from different parts of Bangladesh, even occasionally outside Bangladesh. Especially in the Indian states of West Bengal and Tripura. The *Pujari* from India has decreased drastically in the recent past. The Hindu Zamindar who donated and built this mandir long ago sometimes came to the mandir in the past. So, the Radha Krishna Mandir opened avenues of extended relations with other Tipra communities, Bengali – Hindu communities. Festivals are great opportunities for assembles and share views, happiness and sorrows. The death and birth-related rituals also accelerate the interactions among the hamlet's inhabitants.

**Exchange:** Tipra people's downward situations provoke unequal dialogue with the resources riches persons of the community. Downgrade exchanges mean sustaining poverty. The historical causes are other matters to fall in the low position of the Tipra people. The Tipra passed through several historical shreds of evidence like band and tribal life, own monarchy, colonial, post-colonial, and Bangladesh periods. The constitution of Bangladesh is the safeguard for ethnic people – the question is the implementation.

## Chart of Relationships

Table 11: Relationship Charts

Family	Social	Livelihood	Market	State
<ul style="list-style-type: none"> <li>• Family and kins relations.</li> <li>• Intergenerational and socialisation and symbol-based (language) relations.</li> <li>• Consanguine Marital relations</li> <li>• Fictions and storytelling of own cultural traditions</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Bari</i> and Inter <i>Bari</i> relations</li> <li>• Inter Para and Neighbourhood relations</li> <li>• Inter communities relations</li> </ul>	<ul style="list-style-type: none"> <li>• Peasantry and Peasant relations'</li> <li>• own community's gathering</li> <li>• Inter-community relations on gathering on participation in natural endowments.</li> <li>• Labour market and 'Sardari' system.</li> </ul>	<ul style="list-style-type: none"> <li>• Labour production marketing.</li> <li>• Service seekers of health education</li> <li>• Dowry, but it has a market mechanism.</li> </ul>	<ul style="list-style-type: none"> <li>• Citizen Approval to cross the border to meet own community members.</li> <li>• State protection</li> </ul>

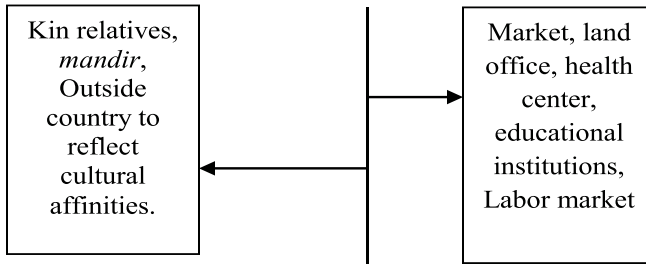
Source: Fieldwork

**Coping Mechanisms:** Migration is a simple way to cope with the Tipra community's livelihood mechanism. Cross-border social networks are beneficial for them during disaster times. Traditional social caring and guardianships for sharing adverse situations are practised during family or community crises. Still, some health problems meet up with the vegetation healing method. Older people of the community bear the knowledge of nature-based medicine and give advice and medications.

**Inter hamlets relations on development matters:** Ethnic-based community development and other initiatives or micro-credit programs shape their dyadic ties. They are assembling for getting loans and monitored by supervised credit mechanisms. To earn the development assistance like ring slab latrines and tube well under the Tribal Development Fund of Government, they showed their performances through organisational activities. Tribal Development Fund has created more interactions with the hamlet's inhabitants. The Tribal Welfare Monindra Tripura and Nokul Tripura leaders maintain relations with Boloram Tripura, Sanjib Tripura, and others in different hamlets. Monindra mentioned that the inhabitants of the hamlets are generally simple in living and the majority of them are not 'clever' or not aware of the reality.

After the shocks of the partition (1947) of British India and historical proceedings of out-migration from Comilla, the Tipra are trying to revive themselves by preserving and expressing their culture. The gate also has more support from Government administrations, civil society NGOs, micro-credit organisations and neighbouring people. The possible problem lies in the land disputes in increasing population and urbanisation.

Figure 1: Inter-Hamlet Relationship



Source: Fieldwork

Table 12: Declining traditions of Tipra of Cumilla

	Past Trends (65 years ago)	Present Trends	Special features
<i>Biju</i> (farewell to the year and welcoming new year)	Community Network-based	Hamlet based know each other’s programs of <i>biju</i>	Salban hamlet more organised capacity to quick performance of <i>biju</i>
Flame Candle at <i>Mondir</i>	Community participation	The <i>Mondir</i> located in remote and isolated areas	Dakhin Gacha hamlet near the <i>mondir</i>
Wear for own cloths	Own tradition	Lost tradition due to lack of community training	Chittagong Hill Tracts (Rangamati, Khagrachari, Bandarban) traditions are treated as symbols
Folk dance	Own Character	Mixed with modern dance	Influence of media (film)

In the process of historical consequences, the Tipra community sustained and reshaped its cultural symbols. Their spiritual belief exists only in their oral tradition and in the communities’ organisations shared by Mondir. The out-migration causes rapid fading of traditional practices of their own. The community revival comes from several sources like global civil society’s awareness, own community’s oral-based cultural tradition, and local support from administration and civil society. The influence of the peace accords of 1997 in Chittagong also benefits them.

**The Festivals:** Tipra observes ‘Biju Utshab’ on the last two days and opening day of the new year of the Bangla calendar year. Tipra called it *Boishabi*. On the first day of the *Boishabi* festival, the Tipra bathes domestic animals. They flame the candle at the holy places like Mondir. On the festival’s second day, they clean the home and homestead with water. They wear their own made clothes at the festivals. On the last day, they bathe the elderly persons of the community and seek an *ashirbad* (blessing) from them. However, the researchers found very few elderly people in the community during the field study periods. Tipra uses the flower at the festivals. They also dance during celebrations. They performed the

folk dance called Goya on that occasion. Recently Tipra welfare society of Comilla organised Biju utshab at Salban Bihar hamlet. The district administration promises to assist in constructing a community cum cultural hall for them to flourish the Tipra culture. The *Swarashati Puza* is another important festival for the young students of the Tipra community.

## 7. Suggestions and Concluding Remarks

Based on the preceding writings, suggestions and conclusions of the study are drawn for further improvements. While Tipra is one of the largest ethnic communities in Bangladesh, one portion is tiny in size compared to the entire community of Tipra lives at hillocks and its valleys in Comilla Sadar Upazila. This portion of the Tipra community bears the mongoloid race, but marital ties currently mix them. The majority of the inhabitants were wage labourers. Few were working in the service sector. About 12 per cent of households reared the boar or pigs. The Tipra had no written form of language. They were in the acculturation process, which was mainly influenced by the neighbouring Bengali language and culture. They follow the *Sanatan* Hindu religion, although distinct cast differentiation was not found among them. They have fond of song and dance, which may attract the tourists. They had the skill to make local wine (chuak) that they drink to reduce tiredness. Such cultural practice creates a cultural value clash with the sections of Bengali people. *Biju utshab*, *Swarashati puja*, annual function at *Radha Krishna Mandir* were some of the cultural and religious events of the community. They had social networks with inter hamlets, an occupational *sardary* system, neighbouring Bengali communities, micro-credit operations, and related livelihood and educational purposes. Watching television was popular among the Tipra community. Listening to record songs and watching videos are other aspects of their entertainment. The subscription to newspapers is very irregular and occasional based.

With acculturation on the way, the dominant Bengali inhabitants and the process of urbanisation and struggle in livelihood shape their cultural lives. A neighbouring culture that is Bengali culture actively influences the communication and cultural functions of the community. The significant change is that the Tipra gradually lost their language. The young Tipra speaks a good Bengali language. The community as such leaving with distinctive characteristics. Once, they live on hillocks and on the edge of the hillocks with geographical isolation. But now, due to the increase of Bengali population and settlement of Bengali population at the edge of the hillocks, creating opportunities for mixing culture and ideas. Tipra has no distinction caste system practising, although they have social differentiations based on occupation and power exercises. Primarily the community of Tipra is in transition. The Tipra of Comilla has more physical mobility. It bears the costs and energy. They also visit and make relations with outside Tipra of Tripura state of India. They enjoy the get-together and feel human energy with relatives, friends, and like-minded people.

The network of the modern world is characterised by global flavours articulated by civil society and plays its role in the Tipra community. Therefore, the Tipra of Comilla is keen to express their existence elsewhere in the country, especially in the Hill Tracks regions of Bangladesh. However, the Tipra still preserved their cultural identities in the social network line. Their social networks are in many folds- within communities with dominant cultural manifestations of Bengalis and outside the country – the Tipra community of the Tripura state of India. No sharp caste-divide system was not found in the community while the community differentiated the class, status and power relations. These social facts remain in the own community of Tipra and spread in comparison and manifest the Bengali population. Identity is indeed the post-modern manifestation that strongly prevails in the Tipra community, where they are like to revive and display struggle with the dominant culture – during the acculturation process.

Regarding class, they are overwhelming downtrodden people, mainly depending on wage labouring. The process of formal education is going on among the new generation. However, it limits due to financial incapability and living struggles in different seasons. They lag behind the quota system for tribal people's government jobs. From these perspectives, the Tipra community is in the process of dynamism on different dimensions. Passing out the tribal characters and going towards market-based production and livelihoods are significant features of the study communities. A tiny cultural gap also developed among the hamlets. The remote hamlets are lagging on that process. The basic amenities and living standards should be upgraded for all Tipra people.

The number of the Tipra of Comilla districts is less, which cannot create significant pressure on the authority. Only the racial appearances and the local languages at the familial levels are still alive. In the process of globalisation, the Tipra people were altering them and contributing their labour and energy for nation-building. They desire to live with their cultural symbols. On the other hand, they are in the process of the Bangladesh Government's inclusive development process. Despite such inclusiveness, they struggled hard for their access to higher education. The poor living condition and morbidity are some of the features that should be addressed. By and large, they are in the process of change. The most important thing is that they possess substantial homestead land so that the process of urbanisation that grows fast at the locality might benefit them by increasing land price, which needs the capacity to secure the land possession and enjoys the other opportunities of the growing town. The Tipra loves their motherland, especially the birthplace. Therefore, these hamlets are very much valuable to them. The Tipra of Comilla needs the recognition of Tribal to identify through documents from the government. The inclusive government process should be widened in respect of legal, economic, social and cultural irrespective of Hill Tracks and non-hill tracks, plain land and hillocks ethnic communities.

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<http://tripurasociety.org/historyfinal.htm>  
<http://portal.unesco.org/ci/en/ev>

### *Glossary*

*Kashar*: adjacent to the hill areas.  
*shraddo* : (a meal sharing based get together  
*gormil*: difference of opinions  
*ababi*: (poor)  
*kishti*: weekly repayment of instalment  
*Mura*: high land areas  
*Mandir*: Temple  
*bari*: houses  
*jogali*: construction work as an assistant provider of inputs to the mason  
*kirtan*: Hindu religious song based on folk elements.  
*bayan*: analysis and explanations of the religious matters  
*Radha Krishna*: Hindu sacred love matters  
*jummu*: the inhabitants of shift cultivators  
*bonroui*  
*sajaru*: porcupine  
*samity*: cooperative society  
*Kok-Borok*: the language of the Tipra community  
*chuak* or *cholai mod*: (homemade win)  
*shashan*: funeral place  
*kani*: unit of land measurement, generally 96 decimal make 1 *kani*.  
*Jarna*: stream water  
*Dol*: an instrument for music  
*Jum*: shifting hill agriculture.  
*Sebakari*: service provider  
*Sebayat*: temple chief priest





## Potential Socio-Economic Impact of the Covid-19 Pandemic on the Human Development of Bangladesh

Mohammad Nazim Ud Dowlah\*

### Abstract

*Bangladesh is one of the high-risk countries for the COVID-19 pandemic and its consequent losses. Through quick administrative action and raising awareness for individuals on social distancing, stringent steps were taken to manage the spread of the disease. On 30th October 2021, there were 15,70,485 confirmed cases besides 27,887 deaths in Bangladesh. The primary purpose of this study is to assess and assess the potential socio-economic impact of the COVID-19 pandemic on the human development of Bangladesh. This paper is a general literature review with an informative purpose that examines recent and relevant literature and current study works, domestic and foreign working papers. The economy of Bangladesh is seriously affected because of its small number of economic attributes to meet the demand of a vast population. Bangladesh RMG industry has received work order cancellations of nearly \$3 billion. Around 2 million workers in the industries will be affected by this. The millions of Bangladeshi skilled and unskilled remittance earners working worldwide are severely impacted. Bangladesh will also face difficulty in attaining SDGs goals. The pandemic hardly stunned the money market and stock market.*

*In a Perception-Based assessment report, 62% of the respondents agreed that the healthcare system of Bangladesh is fragile and unable to deal with the recent outbreak of COVID-19. In this context, the novelty and the complexity of the COVID-19 represent a significant challenge that might compromise the achievement of organizational goals. Therefore, proper and effective policies, initiatives, coordination and awareness buildup are inevitable to avert the severity of the crises to overcome this pandemic, and coordinated efforts are inevitable for governments and NGOs. Focus on people's long-term capabilities. Follow a coherent multidimensional approach. Beyond FY2021, we must be forward-looking and consistent with Vision 2041 and 8th FYP, designing the best growth path with distributional equity.*

**Keywords** COVID-19 · Human Development · Bangladesh

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## 1. Introduction

Bangladesh is one of the high-risk countries for the COVID-19 pandemic and its consequent losses. It is the world's most densely populated and impoverished country. Although the country's recent economic growth has been outstanding, in the fiscal year 2020–2021, 20.5% of the population lived under the national poverty line, and 10.5% were in extreme poverty, according to the latest government announcement.

Bangladesh has employed international travel bans and a gradual lockdown to combat this. However, countries like Bangladesh are at a greater risk because of the large population density, inadequate infrastructure, and healthcare systems to provide the necessary support (Ma et al., 2020). Bangladesh is one of the most vulnerable countries due to its high population density (170 million people in 147,000 sq. km), poor health care systems, and a weak economy. COVID-19 has advanced into a pandemic, initially as small clusters of transmission combined into larger clusters in many countries, resulting in widespread transmission. Social isolation, institutional and home quarantine, social distancing, and community containment measures were applied without delay. Through quick administrative action and raising awareness for individuals on social distancing, stringent steps were taken to manage the spread of the disease by cancelling thousands of locations that involved social gatherings, including offices, classrooms, reception centres, clubs, transport services, and travel restrictions, leaving many countries in complete lockdown.

The government of Bangladesh has taken some bold and timely steps to counter the negative impact of the 'global pandemic' from COVID-19 on Bangladesh's economy. Like many other countries, Bangladesh recognizes the need to address effectively the severe consequences of COVID-19 with curtailed economic activities manifested in factory closures, sudden loss of employment and income with a significant reduction in national output. Cancellation of export orders, declining remittance inflows, and depressed demand for domestically produced goods and services have already had an adverse impact. The services sector, including trade, transport and communication, hotels & restaurants, banking and finance, and education, has predictably shrunk in capacity utilization.

## 2. Background

The novel coronavirus disease (COVID-19) began spreading in November 2019 in Wuhan, China. Following this, the World Health Organization (WHO) announced COVID-19 as a global pandemic on 11<sup>th</sup> March 2020. In Bangladesh, the first infection of COVID-19 was reported on 8<sup>th</sup> March 2020. The Institute of Epidemiology, Disease Control and Research (IEDCR) confirmed the first cases of coronavirus patients. Bangladesh reported its first confirmed COVID-19 death on 18<sup>th</sup> March 2020, 10 days after the first confirmed case. It is not the first time that humanity is facing a pandemic. The Black Death upended the structures of

economies and societies in medieval Europe. Italy pioneered quarantines and other measures during the Renaissance to protect travel and commerce. Global cholera outbreaks in the early 19<sup>th</sup> century led to unprecedented global cooperation on public health in international sanitary conferences during the middle of the 19<sup>th</sup> century. Almost 100 years ago, large movements of people around the globe in the aftermath of World War I contributed to the spread of an influenza virus that led to one of the most lethal pandemics on record: the 1918 Flu pandemic.

Moreover, over ten years ago, hundreds of thousands died during the H1N1 pandemic. Recent outbreaks of new zoonotic (meaning that jump from non-human animals to humans) diseases (SARS, MERS) had significant impacts in many parts of the world, as did outbreaks of already known zoonotic diseases (Ebola). AIDS has caused more than 32 million deaths since the early 1980s. The still largely unknown characteristics of the virus that causes COVID-19 (which is likely also to have jumped from a non-human animal; scientists have been pointing out for years that human pressures on the environment increase the risk that such transmission will become more frequent along with our globalized world spread the SARS-CoV-2 virus in a matter of weeks. However, this pandemic has been unprecedented because it evolved from a health shock to an economic and social crisis<sup>1</sup>.

As of 30<sup>th</sup> October 2021, there are 15,70,485 confirmed cases besides 27,887 deaths in Bangladesh, whereas total global COVID-19 cases have risen to 259.5 million, with the total number of fatalities escalating to 5.1 million<sup>2</sup>. The 21<sup>st</sup> century has seen four pandemic outbreaks: N1H1 in 2009 ('bird flu'), Severe Acute Respiratory Syndrome (SARS) in 2002, Middle East Respiratory Syndrome (MERS) in 2012, and Ebola, which peaked in 2013-14. However, this COVID-19 pandemic is different; economically speaking hit both economically dominant and economically dependent nations. Since the Covid-19 epidemic out raises, there has affected millions of people and claimed the lives of more than three hundred thousand people worldwide. Likewise, the current Covid-19 epidemic has affected all walks of life and businesses in several ways, including a sharp drop in domestic demand, supply disruptions, and a reduction in tourism and travel (Abiad et al., 2020; Hutt, 2020; Report, 2020).

The accelerating spread of COVID-19 and its outcomes worldwide has led people to experience fear, panic, concern, anxiety, stigma, depression, racism, and xenophobia. Bangladesh confirmed their first COVID-19 case on the 8<sup>th</sup> March 2020, followed by a nationwide lockdown from 26<sup>th</sup> March 2020, which had been extended several times until 10<sup>th</sup> August 2021 to prevent human transmission.

Given the rapid spread of the COVID-19 virus, these countries have implemented several non-pharmaceutical measures intended to reduce its spread, such as social distancing. Lockdown measures were imposed; people were

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<sup>1</sup> 2020 Human Development Perspectives, COVID-19 and Human Development: Assessing the Crisis, Envisioning the Recovery (2020), UNDP

<sup>2</sup> Website: <https://covid19.who.int/region/searo/country/bd>

quarantined; schools, universities, non-essential businesses, and non-governmental organizations were temporarily closed; travels were restricted; flights were cancelled, and mass public gatherings, as well as social events, were prohibited (Brodeur, Gray, Islam & Bhuiyan, 2020; Gourinchas, 2020).

According to data compiled on 4<sup>th</sup> May 2020 by the WHO, with a population of more than 160 million, the country had one of the lowest numbers of tests in the world. The lack of PCR machines, proper biosafety labs, insufficient testing kits, and unprepared health workers have further worsened the situation.

### **3. Objectives**

The primary purpose of this study is to assess and assess the potential impact of the COVID-19 pandemic on the economy of Bangladesh. The assessment was to get an impression of the coping mechanism of general people regarding the emerging pandemic and to have an idea of the impact of COVID19 and its long-term consequences. This study will help us identify the area of emergency response needs & requirements to explore future working scope or working areas considering this public health crisis. There are very few studies that have investigated this impact.

### **4. Methodology**

This paper is a general literature review with an informative purpose that aims to examine recent and relevant literature which investigated the impact of COVID-19. To understand the possible psychosocial, socio-economic, and environmental impact of the COVID-19 outbreak in Bangladesh, we considered and identified several relevant and possible items based on the socio-economic situation, political analysis, the existing healthcare system, environmental analysis, potential emerging issues utilized from scenario developments, analysis of local and global reports of the COVID-19 pandemic from the print and electronic media, and a literature review.

This study is based on an empirical overview of recent study work, reports, and domestic and foreign working papers on the economic crisis. Therefore, the study uses available resources to investigate the potential impact of the 'Covid 19 pandemic and various economic indicators, notably ready-to-wear, remittances abroad, local trade, international trade, government revenues, employment, financial institutions, manufacturing and distributions because of isolation, quarantine, dissociate and shutdown measures in Bangladesh. The study collected most of the review material, exploring the covers of Google Scholar, ProQuest and Scopus, and other online resources.

### **5. Limitations**

The contribution of this paper should, however, be considered in light of some limitations. First, our research is a general literature review with an informative

purpose, which might suggest that there is a possibility of a subjective selection of literature. Notwithstanding, the databases we used (Google Scholar, Ebsco, and Semantic Scholar) provide the most cited articles. Besides, this paper's purpose and informative character do not require a systematic literature review. Second, while writing this paper, COVID-19 is still present. Therefore, it is impossible to identify the long-term challenges and opportunities accurately. Future research should focus on longitudinal analysis to identify these challenges and opportunities.

## 6. Literature Review

The potential impact of COVID-19 on global monetary poverty through per capita household income or consumption contraction. The effect will spread among low, medium, and high-income people (Sumner et al., 2020). The other influential discussions over monetary and fiscal policy responses to the COVID-19 epidemic and the ensuing economic fallout (Guerrieri et al., 2020). The looming financial crisis may create panic, mass unemployment, poverty, and homelessness. The economic implications related to COVID-19 in those countries include a high cost of care, market failures in pluralistic health systems, high out-of-pocket expenses, the added burden of non-communicable diseases, missed economic opportunities, and socio-economic consequences like unemployment and poverty (Rodela et al., 2020). The ability of an enterprise to make its employees motivated, skilled and committed is one of the critical determinants of its competitiveness. It can only be achieved in a workplace environment characterized by a spirit of social dialogue, mutual trust and respect, non-discrimination, and the absence of violence and harassment. According to the ILO research brief on May'2021, "it was already clear that the world at large, and the corporate world, in particular, was facing global challenges related to rapid technological changes and artificial intelligence, environmental degradation, the uneven pace of globalization, inequality, demographic shifts, and migration. Not only has the COVID-19 pandemic amplified these challenges, but it has also presented further challenges in itself. Managers tend to agree that hybrid working is difficult for those who come back and those who stay at home. People working from home may suffer regarding career advancement or financial rewards. These are often based on a "command and control" management approach: visibility in the workplace is considered a central aspect of a worker's performance and commitment to the organization. The COVID-19 crisis has created an opportunity to revisit corporate HRM policies to ensure that pay and promotion decisions are based on objective, performance-related measures<sup>3</sup>."

According to the Psychosocial and Socio-Economic Crisis in Bangladesh due to COVID-19 Pandemic: a perception-based assessment report, 62% of the respondents strongly agreed with the statement that the healthcare system of Bangladesh is fragile and unable to deal with the recent outbreak of COVID-19 (HSB1). Nearly 61–65% of respondents strongly agreed that "the shutdown or lockdown of regular activities was

<sup>3</sup> ILO research brief May 2021 (2021)

a good decision to reduce the chance of infection of COVID-19” (SEI1) (mean  $4.53 \pm 0.77$ ), “this will have an economic and social impact in the future” (SEI2) (mean  $4.51 \pm 0.77$ ), and that “both formal and informal businesses will be hampered” (SEI3) (mean  $4.5 \pm 0.71$ ). For the fourth statement, 85.6% of respondents strongly agreed that “poor people living off daily wages will be severely affected” (SEI4), with a mean of  $4.78 \pm 0.60$ . In comparison, 60.5% strongly agreed that “most of the poor people living in urban areas have to leave the city due to not having any options for income” (SEI5) (mean  $4.42 \pm 0.87$ ). 54.8% (mean  $4.36 \pm 0.85$ ) of the respondents agreed that “many people will lose their livelihood/ jobs at this time” (SEI6). 56.4% (mean  $4.39 \pm 0.82$ ) of respondents strongly considered that “there is a chance of community transmission of COVID-19 in Bangladesh” (IEI1) and that “a huge number of people will be infected” (IEI2) with a mean value of  $4.208 \pm 0.93$ . Moreover, 69% of the respondents strongly agreed (mean value  $4.56 \pm 0.74$ ) that “there is a chance that many infected patients will not be detected due to a lack of testing facilities, and this will not show the actual number of infected cases” (IEI3). Approximately 61– 67% of the respondents strongly agreed that “there is a chance of an increasing number of deaths from infection due to a lack of proper health facilities”<sup>4</sup>.

Trying to recover from this economic shock, companies have started reopening (Major & Machin, 2020), in the mid of this ongoing pandemic, under special rules and a new functioning (e.g., physical distancing in the workplace) (Shaw, Main, Findley, Collie, Kristman, & Gross, 2020) that no one can predict when it will end. Therefore, this pandemic has led to a complex and challenging environment for managers and human resource management (HRM) practitioners who need to find ingenious solutions to sustain their company’s business and help their employees cope with the challenges of this unprecedented situation. COVID-19 is not only a physical health risk, but it also represents a significant risk for individuals’ mental health (Brooks et al., 2020; Chen, Ning, Yu, Huang, Li, & Luo, 2020; Hamouche, 2020; Qiu, Shen, Zhao, Wang, Xie, & Xu, 2020). It might be psychologically demanding for employees working from home, who can feel isolated and torn between work and their private life (Prasad & Vaidya, 2020). Moreover, employees who are required to be physically present in the workplace might return to work with the fear of contracting the virus or transmitting it to their family (Tan et al., 2020), which might increase their level of stress as well as the risk of mental health issues (Hamouche, 2020), especially for employees who were facing high psychological demands at work, before the pandemic (Quaedackers et al., 2020), or those who have a high-risk job position, e.g., healthcare workers (Hamouche, 2020)<sup>5</sup>.

<sup>4</sup> Bodruddoza. M., Shammi. M., Bahlman. L., Islam. A. R. M. T., & and Rahman. M. M., Psychosocial and Socio-Economic Crisis in Bangladesh Due to COVID-19 Pandemic: A Perception-Based Assessment (2020), *Frontiers in Public Health*, www.frontiersin.org, June 2020, Volume 8, Article 341

<sup>5</sup> H. Salima, Human resource management and the COVID-19 crisis: implications, challenges, opportunities, and future organizational directions; *Journal of Management & Organization* (2021), page 1 of 16

Barkat et al. 2020 have mentioned in their NUPRP study findings that according to the WHO's advice on possible preventive measures on COVID-19, frequent hand washing; maintaining social distancing; using the face mask; avoiding touching the nose, mouth and face; following cough etiquette; staying at home, and seek for doctor's help if feeling unwell are all highlighted measures. About three-fourths of the households are aware of frequent hand washing, and nearly two-thirds of the surveyed households know about using a face mask. 40.2 per cent of the beneficiary households know about social distancing, which is 51.7 and 41 per cent in semi-control and pure control households, respectively. "Not touching face, nose and eyes with hands" was mentioned by 26.1, 30.1, and 21.3 per cent of the beneficiary, semi-control and pure control households, respectively.

Community discussions confirmed that urban poor children and adolescents are also facing depressions like the adults. FGD participants informed that children had lost their interest in studying, which is fuelling depression. Community discussion also revealed that urban poor parents are forcing their children against their will into child labour to support the financial need of the household inducing depression among children. Adolescent girls forced into child marriage are also becoming more depressed due to the unexpected burden of marital life and the discontinuation of their studies<sup>6</sup>.

The readymade garments industries are the principal source of foreign exchange earnings, and the readymade garments sector covers more than 85% of total export earnings. More than four million workers are employed in the RMG industries, and more than 85% are illiterate women from rural villages. Due to the commencement of COVID-19, the Bangladesh readymade garments (RMG) industry has already received work order cancellations of nearly \$3 billion. Around 2 million workers in the industries will be affected by this. About 4 million people are directly engaged with the RMG sector, e.g. backward linkage industries, accessories and packaging factories, and the transportation sector<sup>7</sup>.

Compared to February 2020, the study found a 10% reduction in EPI sessions, 35% reduction in TT vaccination services and terms of family planning services, a whopping 91% drop in child delivery services, 66% and 87% reduction in Antenatal Care (ANC) and Postnatal Care (PNC) services respectively. 86% of respondents stated they faced more family problems than others. Other affected issues were food consumption, education, mental health and disturbances in family relations. 55% of respondents mentioned they faced economic loss as they had less income and no job due to the lockdown. Some said having lost their savings and faced

<sup>6</sup> Barkat. Abul., Osman. A., Ahamed. F. M., Mamun. M. H., Rabbey. F., Begum. L., Nurunnahar., & Sarwer. M. N; Socio-Economic Assessment of COVID-19 under National Urban Poverty Reduction Programme HDRC, Dhaka, Oct 2020

<sup>7</sup> Alam. M. S., Ali. M. J., Bhuiyan. A. B., Solaiman. M., & Rahman. M. A. (2020). The impact of Covid -19 pandemic on the economic growth in Bangladesh: a conceptual review. *Available at SSRN*: <https://www.researchgate.net/publication/344895166>



ill-treatment from their family members/problems in family relationships. As a mitigation plan for current family loss, most plan to return to their native village, and some plan to reduce unnecessary expenses. 55% mentioned they are taking less food; their leafy food intake has increased, whereas protein-rich food such as meat, fish, eggs, milk and other nutritious food intake has decreased. 58% of the respondents mentioned they feel deprived of the following basic needs due to the crisis: lack of food and other commodities due to the increased price of goods and shortage in markets, lack of medicine due to increased price and shortage in pharmacies, children's education being hampered as schools remain closed, many have not received a salary as the workplace is shut down, many have not received any support/relief from the government and other sources yet. 71% of pregnant respondents reported that they had missed their routine ANC check-ups as the health facilities were closed, there were no transportation facilities to help them arrive at those facilities, and some responded that they did not have enough money to continue ANC check-ups. 78% of pregnant female respondents mentioned they had changed their dietary habits, such as less food intake than before, avoiding/cannot afford nutritional foods, and lack of medicine due to the shortage of iron and folic acid tablet. Among all the respondents with an eligible child for vaccination, 20% missed last month's vaccination because of closed EPI sessions<sup>8</sup>.

The COVID-19 pandemic decelerated economic growth in 2020. The pace of poverty reduction slowed, exports declined, inequality increased across several dimensions, and the poverty rate in 2020 increased to 18.1 per cent from 14.4 per cent. Nevertheless, strong remittance inflows and a rebound in the export market have helped the economy recover gradually. To recover fully and achieve its growth ambitions of achieving upper-middle-income status, Bangladesh needs to address the challenge of containing COVID-19. Vaccinating the population will reduce the incidence of the disease and mortality and enable the full resumption of economic activities. Bangladesh also needs to address the challenge of creating jobs/employment opportunities through a competitive business environment, increased human capital and skilled labour force, efficient infrastructure, and a policy environment that attracts private investments. Other development priorities include diversifying exports beyond the RMG sector, deepening the financial sector, making urbanization more sustainable and strengthening public institutions. Addressing infrastructure gaps would accelerate growth and reduce spatial disparities in opportunities across regions and within cities. Addressing vulnerability to climate change and natural disasters will help Bangladesh to continue to build resilience to future shocks. Pivoting toward green growth would support sustainable development outcomes for the next generation<sup>9</sup>.

Employment relationship refers to 'the connection between employees and employers through which individuals sell their labour' (Budd & Bhawe, 2010).

<sup>8</sup> Rapid-Assessment-Report-on-COVID-19-effects-on-Urban-Health (2020), CARE

<sup>9</sup> <https://www.worldbank.org/en/country/bangladesh/overview#1>

From a labour law perspective, COVID-19 has created critical challenges for employees and employers (Biasi, 2020; Sagan & Schuller, 2020). Due to the lockdown and mandatory closure of business, both could not accomplish their contractual obligations (Biasi, 2020). Rebuilding the organizational culture is needed to facilitate the adoption of flexible work arrangements and the transition toward a hybrid working model (AM et al., 2020; Ngoc Su et al., 2021). Moreover, developing and maintaining a cohesive culture that supports employees' connections and interactions is required (Lund et al., 2021) to encourage social support and collaboration among employees, particularly those working remotely. Virtual interactions might affect the socialization process and the acquisition of tacit knowledge related to the organizational culture (Asatiani et al., 2021).

## **7. Findings**

The economy of Bangladesh is seriously affected because of its small number of economic attributes to meet the demand of a vast population. In addition, the global health and economy, among others, are being hit hard by the Covid-19 pandemic, as it is the boom and the trap of globalization. This global health issue comes with a high degree of uncertainty, such as more extended quarantines, travel restrictions, closures of non-essential restaurants and businesses, remote social ordering, lockdowns, and more regarding the severity, magnitude and extent of the problematic consequences of the Covid-19 pandemic.

As in the case of each of the pillars of the economy of Bangladesh is sternly battered, and consequently, it will take time to get back usual pace in economic activities. The most significant export earnings sector in the readymade garments industries is highly shaken due to isolation, lockdown, travel ban, and supply chain disruption worldwide. The government has already declared a stimulus package for improving the RMG sectors. The government immediately should take a comprehensive support plan until this crisis removes to make this sector sustainable.

Bangladesh will also face difficulty in attaining SDGs goals. The goals most likely to be explicitly affected are GOAL 1: No Poverty; GOAL 2: Zero Hunger; GOAL 3: Good Health and Well-being; GOAL 4: Quality Education; GOAL 8: Decent Work and Economic Growth; GOAL 10: Reduced Inequality. The goals which might suffer implicitly due to divergence in the priorities are GOAL 5: Gender Equality; GOAL 6: Clean Water and Sanitation; GOAL 7: Affordable and Clean Energy; GOAL 9: Industry, Innovation, and Infrastructure; GOAL 11: Sustainable Cities and Communities; GOAL 13: Climate Action; GOAL 14: Life Below Water; GOAL 15: Life on Land; GOAL 16: Peace and Justice Strong Institutions. Restrictions on worldwide economic activities may lead to some relief for nature, therefore making some improvements relating to SDGs no 13, 14, and 15. These, however, may not be enough to compensate substantially for the overall impact (Alam et al., 2020).

The millions of Bangladeshi skilled and unskilled remittance earners working worldwide were severely impacted (i.e. about 0.50 million workers returned to Bangladesh) by the COVID-19 pandemic for draconian movement control measures, lockdown, travel ban, and factory closure. Authorities need financial support for these returned expatriate workers and make them engage in production or entrepreneurial activities.

The pandemic hardly stunned the money market and stock market for work station closure and deteriorated the financial health of both markets. Along with the above, Cottage, Micro, Small and medium scale enterprises (CMSME) or backward linkage enterprises are seriously affected by supply chain disruption, lockdown, and factory closure.

The COVID-19 pandemic is compounding risks to further progress towards gender equality. The crisis is deepening preexisting inequalities and exposing vulnerabilities which are in turn amplifying the impacts of the pandemic. The effect on women and girls span economic (earning less, saving less and job insecurity), reproductive health, unpaid care work, bargaining house power and gender-based violence<sup>10</sup>.

While it is too soon to assess the economic impact of the pandemic, it is already being described as the worst plunge in economic activity since the Great Depression. As of early May 2020, most countries had implemented emergency monetary and fiscal measures, and numerous countries had also implemented trade and balance of payments measures.

The government of Bangladesh has taken the following steps: a) Free food distribution; b) Sale of rice under the Open Market Sale (OMS) program with a highly subsidized price (Taka 10 per kg); c) Cash transfer to the targeted vulnerable population; d) Expansion of allowance programs (Old Age Allowance and Allowance for Widow/husband Deserted Women) to all eligible persons (100 per cent) of the 100 most poverty-stricken Upazilas of the country; e) Expedite construction of the house for the homeless people.

The SAM-based calculations of direct and indirect effects of injection of funds into the top 10 value-added sectors in Bangladesh economy on the eight different household groups, which include both rural and urban households at various levels of income and classified according to other related socio-economic criteria, are given below in table 1<sup>11</sup>:

<sup>10</sup> UN 2020e “Policy Brief: The Impact of COVID-19 on Women.” 9 April. <https://www.unwomen.org/en/digitallibrary/publications/2020/04/policy-brief-the-impact-of-covid-19-on-women>.

<sup>11</sup> Haider A. Khan, Economic Impact of COVID-19 On Bangladesh: Agenda for Immediate Action and Planning for the Future, MPRA, 13 May 2020

*Table 1: Multipliers for eight different household groups for the top 10 value-added sectors*

	Retail Trade	Land Transport	Other Services	Building	Wholesale Trade	Paddy Cultivation	Public Administration & Defense	RMG-Woven	RMG-Knitting	Miscellaneous Industry
Sectoral VA	1,512,540	1,404,807	1,322,765	1,037,226	927,041	831,226	784,407	660,534	636,446	440,973
Rank of % GTVA	1	2	3	4	5	6	7	8	9	10
% GTVA	8.09%	7.51%	7.07%	5.55%	4.96%	4.45%	4.19%	3.53%	3.40%	2.36%
Small Farmer	0.232	0.224	0.274	0.187	0.24	0.182	0.254	0.212	0.199	0.183
Medium Farmer	0.166	0.161	0.193	0.135	0.172	0.135	0.18	0.153	0.143	0.132
Large Farmer	0.148	0.155	0.133	0.135	0.151	0.169	0.137	0.148	0.133	0.13
Non-Farm SE	0.199	0.207	0.187	0.18	0.204	0.218	0.189	0.197	0.178	0.174
Non-Farm WE	0.42	0.404	0.498	0.337	0.435	0.328	0.46	0.384	0.36	0.331
Day Labor	0.179	0.173	0.212	0.144	0.186	0.141	0.196	0.164	0.154	0.142
Salaried	0.218	0.214	0.243	0.181	0.225	0.188	0.23	0.203	0.189	0.177
Self-Employ.	0.203	0.212	0.188	0.185	0.208	0.226	0.191	0.202	0.182	0.178

Analyzing Table 1, the study has shown that in addition to the RMG sector, which most commentators have focused on, other sectors contribute significantly in terms of total value added to the various households, including the poor households.

After the outbreak of Covid-19, the import and export-oriented companies are also at risk. The Chattogram Port is the main port in Bangladesh. Almost 92 per cent of import-export activities are performed through this port; reported that imports and exports through this port declined in March by over 12 per cent and 26 per cent. Due to the income and asset distribution inequality, the advantages of higher GDP growth are not evident in society. On 5th April, the government unveiled a Tk. 72,750 crore stimulus package, including the previously declared Tk. 5,000 crore packages to address the economic impacts of the coronavirus outbreak.

### Challenges

As history teaches, the impact and responses to pandemics have the potential to reshape the world for generations to come. As the consequences of the crisis unfold—including the effects of reactions amid great uncertainty—articulating a vision can contribute to framing policies for outcomes aligned with the aspirations of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals.

In this context, the novelty and the complexity of the COVID-19 represent a significant challenge that might compromise the achievement of organizational goals. Bangladesh is the fastest-growing developing country, and its Gross Domestic Products Bangladesh, like other countries, faces the daunting challenge of fully recovering from the COVID-19 pandemic, which has constrained economic activities and reversed some of the gains achieved in the last decade.

It is essential to distinguish between the short-term and longer-term impacts of pandemics—and major shocks in general. From a broad and deep historical analysis, Walter-Scheidel has shown that significant shocks such as wars and pandemics can reduce income inequality but that the outcome depends on the policy response. When pandemics result in high mortality, the relative returns to labour increase compared with the returns to capital because workers demand higher compensation—partly because there is a lower labour supply due to mortality and partly because they are afraid to be infected and require more to show up for work<sup>12</sup>.

Perhaps one of the more glaring aspects of the response to the crisis is to remind us of the importance of collective action – actions that we take thinking not only of ourselves but on behalf of everyone. Everyone remains vulnerable until the spread of the virus is stopped everywhere – until a vaccine or treatment is deployed.

Bangladesh is a developing country with an impoverished banking system with fifty-nine commercial banks, thirty-four non-banking financial institutions, and sixty-two insurance companies (Wikipedia). These institutions are highly interdependent with each other and dependent on the industrial sector of Bangladesh. Due to the outbreak of Covid-19, the banking industry is in the critical stages of mounting non-performing loans (NPLs). The banking system will collapse if the RMG industry and its backward linkage industries fail. Commercial banks, non-banking financial institutions, and general insurance companies rely heavily on garments and related industries for their business. In the long run, the amount of deposits and the investment will decrease dramatically, and these institutions will not be able to pay enough to their employees. Many employees will lose their job, and the number of banks and financial institutions will collapse. The current scenario of non-performing loans indicates horrible situations in the banking sector. (Alam. M. S. et al. 2020). In December 2020, the non-performing loan ratio stood-7.66%; in June 2021, the ratio was 8.18%.

## 8. Conclusion

As a result of the COVID-19 crisis, enterprises have to adjust their recruitment and selection procedures towards the heavy use of virtual tools. This situation requires great care in using tools such as virtual assessment centres and interviews, which aim to evaluate candidates' technical skills and understand how they might fit in with the organization's values.

<sup>12</sup> Scheidel, W. 2017. *The Great Leveler: Violence and the Global History of Inequality from the Stone Age to the Present*. Princeton, NJ: Princeton University Press.

The study also revealed that the magnitude of the economic losses would depend on how the outbreak evolves as any pandemic disease and its economic consequences are vastly ambiguous, making it challenging for policymakers to work out an axiomatic and appropriate macroeconomic policy guideline. Therefore, suitable and effective policies, initiatives, coordination and awareness buildup are inevitable to avert the severity of the crises to overcome this pandemic. An unprecedented wake-up call and coordinated efforts are inevitable for governments and private organizations.

## **9. Recommendations**

To ensure a smooth flow of foreign remittance, the government may implement various strategies, e.g., export of human resources with safety and security by government agencies, searching for new labour markets, improving diplomatic relationships with importers countries, and ensuring compensatory packages for wage earners.

Focus on people's long-term capabilities. It could reconcile apparent tradeoffs between public health and economic activity (a means to the end of expanding capabilities) but would also help build resilience for future shocks.

Follow a coherent multidimensional approach. Since the crisis has multiple interconnected dimensions (health, economic and social aspects), a systemic approach is essential rather than a sector-by-sector sequential approach.

In the immediate crisis with a time horizon of from now to three months into the future, the main problem will be to contain the infection, prevent widespread hunger and shortages, and give incentives for the private sector to follow an optimal restorative path.

Increased public expenditure with a target to create a job. Foreign tour and luxury expenditures will be discouraged. Introducing a fiscal stimulus package to retain workers in the manufacturing sector, maintain the competitiveness of the enterprises, especially in the export-oriented manufacturing sector and revitalize the economic activities and business environment. Expansion of social safety net programs to meet the basic needs of people below the poverty line, day labourers and those who are engaged in the informal sector.

Increase the money supply to maintain the economy's liquidity so that the shock arising from the pandemic can be absorbed and daily businesses can operate smoothly. Bangladesh Bank has already lowered CRR (cash reserve ratio) and Repo rate to increase the money supply, which will continue if needed. However, special attention will be given, so inflation does not increase due to the increased money supply.

Beyond FY2020. Here we need to be forward-looking and consistent with Vision 2041 and 8th FYP and design the best growth path with distributional equity.

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## Inequality in Life Expectancy-Acceleration due to COVID-19

Khan A. Matin\*

### Abstract

*The study of inequality in life expectancy by socio-economic groups has been receiving more and more attention with the rise in inequality. The present study investigates the prevailing situation in Bangladesh by using the age-specific mortality data available from various sources like the Sample Vital Registration System (SVRS) of the BBS and the Bangladesh Maternal Mortality Survey. The BBS, however, has been presenting a life table by sex, and there is a disparity in life expectancy in favour of females presently by three years. Rural life expectancy was lower in Bangladesh from 1981-to 2014, after which it exhibited that the difference in rural and urban life expectancy is being narrowed down. In India, the life expectancy at birth is slightly more than one year higher in urban areas than in rural areas. Life expectancy at birth was computed for seven regions (administrative divisions) using the age-specific mortality rates given in SVRS reports. For the year 2016, the highest value of life expectancy at birth (73.9 years) was found for the Rajshahi division, followed by Khulna division (73.5 years), Rangpur (73.0 years), Barisal (72.8 years), Sylhet (72.6 years) and the lowest for Chattogram division (72.1 years). We also compared the life expectancy and Household average income of the administrative divisions as obtained in the HIES 2016. No systematic relationship between household income and life expectancy was observed. Analysing the mortality of BMMCHS between 2010 and 2016, the life expectancy increased with the increase in wealth quintile for both males and females. The difference in life expectancy between the richest and poorest quintile of the male was 3.37 years, and for females, it was 1.34 years. But the much higher difference in life expectancy at birth between the richest and poorest quintile has been observed in other countries like India, the United Kingdom, the United States and Norway.*

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**Keywords** *Life expectancy · Life expectancy inequality · Bangladesh · India · United Kingdom · U.S.A · Norway*

## 1. Introduction

The World Health Organization (WHO) defines life expectancy as “the average number of years a person is expected to live based on the current mortality rates and prevalence distribution of health states in a population”. Life expectancy at birth, a summary measure of health, is the most popular and widely used indicator cutting across the disciplines; among academia, planners, policymakers and International organisation. It represents the dimensional index of health in the human development index. However, this indicator is usually provided at the national and sub-national level without segregating population social and economic groups, mainly due to data limitations. Estimating life expectancy at birth among social and economic groups helps assess the impact of various programs and policies designed to improve the well-being of the population subgroups. The present study attempts to provide the estimated life expectancy at birth by sex, rural-urban background and various socio-economic groups classified by household income. It is a measure that summarises a country’s mortality, allowing us to compare it by generation and analyse trends. Its interpretation and meaning are even more decadent and can provide crucial information on the level of development of a country’s welfare state. This indicator is so vital to describing population conditions that, together with the education index and the Gross Domestic Product (GDP) index, it forms the Human Development Index(HDI) used by the United Nations Development Programme (UNDP). There is no better indicator of a country’s social development than having a long and healthy life. Life expectancy expansion is a result of, among other things, improvements in nutrition, health and, above all, a decrease in mortality, but also of different reasons that lead to those mentioned previously. Therefore, this indicator’s importance is evident, as it provides us with many characteristics of a society and its situation. To sum up, it could lead us to trivialise its significance or assume that a decrease in the life expectancy of a generation (average) only affects the ones who live the longest. To understand the importance of life expectancy in Bangladesh, it is helpful to analyse some data both in the context of other countries and about the past years and focus primarily on where we are going rather than where we come from (Mohanty and Ram, 2010; Asaria et al. 2019).

According to some recent studies, the United States National Academy of Sciences, regarding the implications of life expectancy mentions, “According to many studies, life expectancy has been rising fastest for people with higher education or income, so the gap in longevity by socio-economic status has been increasing. This trend is important, but it also means that higher-income people will increasingly collect government benefits such as Social Security over more years than lower-income people. It also means that some proposed policy changes

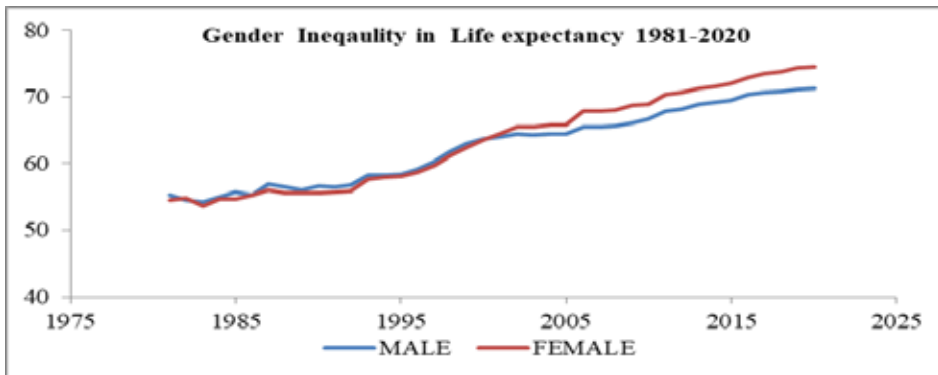
to make programs fiscally sustainable, such as raising the normal retirement age for Social Security or raising the eligibility age for Medicare, might disproportionately affect those with lower incomes” (NAS, US 2015).

## 2. Gender (Female-Male) Inequality: Bangladesh SVRS 1981-2020

### 2.1 Sample Vital Registration System(SVRS)

The difference in life expectancy at birth according to gender is shown in chart 1. For 1981-2020, as available from the Sample Vital Registration System(SVRS) of the Bangladesh Bureau of Statistics. For the years up to 2000, the male life expectancy was higher than the female life expectancy at birth, after which female life expectancy was higher than male life expectancy. For the year 2020, the expectation of life for males was 71.2 years, and for females, it was 74.5 years, and for the total population, it was 72.8 years. The female life expectancy was higher by 3.3 years.

Chart 1: Gender Inequality in Life Expectancy: SVRS

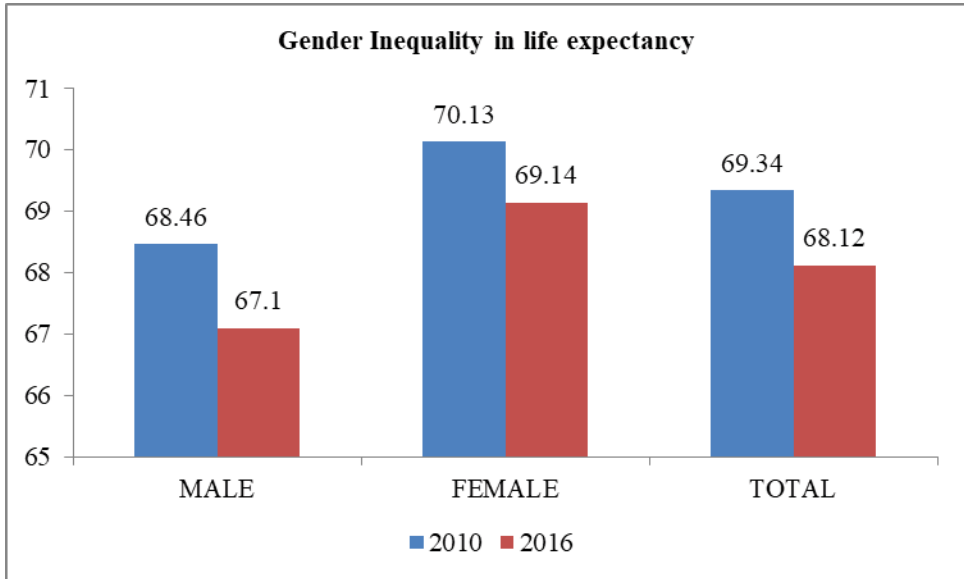


Source and note: Author’s analysis. Data source BBS SVRS

### 2.2 Bangladesh Maternal Mortality and Health Care Survey (BMMHCS)

The trend in life expectancy at birth according to gender inequality is presented in Chart 2. In 2010 male life expectancy was 68.46 years while female life expectancy was 70.13 years, giving a gender inequality of 1.67 years. In 2016 the male life expectancy was 67.10 years while female life expectancy was 69.14 years, thus providing a gender inequality of 2.04 years.

Chart 2: Gender Inequality in Life Expectancy: BMMHCS



**Source and note:** Author's analysis. Data source BMMHCS

On the sex differences in life expectancy, I am furnishing an article in Box 1 published in the daily star, Dhaka, which is self-explanatory:

### **Box 1: WHAT CAUSES THE INEQUALITY IN LIFE-EXPECTANCY BETWEEN MEN AND WOMEN?**

Women are sometimes considered the weaker sex because, on average, men are taller, more muscular, and seemingly more assertive than women. Medical science, however, tells a different story: women are biologically stronger than men. In all countries worldwide, women consistently live longer than men on average. This is also true for many other species of mammals. The natural sex ratio at birth is male-biased, with 105 boys born on average against 100 girls globally. As the offspring grow up, males die in more significant numbers than females at any given age, leading to a more balanced sex ratio in adult age. The population sex ratio reverses in old age, with women outnumbering men in most countries.

Consequently, around 90 per cent of all supercentenarians (110-plus years old) living on the planet today are women. The ongoing coronavirus pandemic further reminds us of the gender gap in mortality. In countries with available data, Covid-19 is killing more men than women (*The New York Times*, February 20, 2020).

In Bangladesh, the number of deaths from Covid-19 is nearly four times higher among men than women. The higher prevalence of fatal diseases in men and the more robust immune system in women presumably drive the gender differences in Covid-19 mortality globally.

Women usually report more psychological problems while men suffer more from severe and life-threatening illnesses like heart diseases, stroke and cancer. These diseases are the major killers of our time and the main culprits for premature deaths and the gender gap in mortality worldwide. Women face gender discrimination in every sphere, limiting their potential to maximise health and well-being. Yet, women paradoxically seem to be the healthier sex. The mechanisms that underlie the gender-health paradox are complex and not fully understood. Several biological and social mechanisms are suggested as explanations. From a biological point of view, men are naturally programmed to die earlier than women at conception.

Available evidence indicates that the male foetus is biologically weaker and more vulnerable to pregnancy complications than the female foetus. Moreover, neonatal and infant mortality rates are higher in boys than girls. These sex differences at birth provide the foundation for the biological explanation of male disadvantage in life expectancy. Sex hormones play a crucial role in the female advantage in longevity. The female sex hormone oestrogen protects against cardiovascular diseases and is partly responsible for the lower incidence of such diseases in women until menopause. By contrast, higher in men, the androgen hormone is associated with a higher risk of cardiovascular diseases. The more robust female immune system is another factor that could contribute to the longevity gap. Female bodies are known to produce more significant amounts of antibodies compared to males. This increases females' capacity to fight off respiratory, bacterial, and viral infections, including the deadly Covid-19.

Moreover, female bodies carry higher amounts of beneficial cholesterol (HDL), protecting against heart diseases. Men are disadvantaged even in fat distribution because they accumulate excess fat around the stomach, while women tend to carry excess fat in the hips and thighs. Excess fat is harmful, but abdominal fat is more dangerous for cardiovascular health. Genetic disorders are sometimes held responsible for different mortality in men. A similar gene can naturally compensate for a damaged gene on the X chromosome in the second X chromosome in women but not men due to the lack of double X chromosomes. The higher infections, congenital disorders, and deaths in male babies possibly express their lack of double X chromosomes.

Furthermore, the mitochondrial DNA, known as the powerhouse of cells and is believed to be exclusively inherited from the mother, leads to male-specific harmful mutations in the mitochondria. Mitochondrial dysfunction is associated with ageing and chronic diseases.

If biology were the sole cause behind the gender gap in life expectancy, one could expect the gap to be relatively constant over time and across societies. However, the gender gap in life expectancy considerably varies by time and context, suggesting that social forces are in operation to drive the trends. For instance, a Bangladeshi boy born today is expected to live 3.8 years shorter than a girl, while Russia's corresponding male-female gap is 10.5 years. Thanks to medical advances and improved standard of living, global life expectancy linearly went up by three months per year (i.e., 6 hours a day) from 1841 to 2000. However, it increased at a much slower rate in men than women, resulting in a wider gender gap. Men are more exposed to work-related stress and unhealthy behaviours, e.g., smoking and alcohol abuse, responsible for their lower longevity.

Furthermore, men are typically disadvantaged by occupational hazards and so-called masculine behaviours that are highly risky. As a result, they die disproportionately in work-related accidents, car crashes, war, and sporting activities. The male sex hormone testosterone is responsible for predisposing men to risky behaviours. Perhaps, research finds a link between marriage and increased life expectancy in men but not women. Marriage protects men from risky social habits, whereas women are less prone to risky behaviour regardless of marital status. The gender gap in global life expectancy has narrowed in recent years compared to the past. This is unsurprising given that women are increasingly entering the workforce and adopting health-damaging lifestyles like smoking and drinking. There is an interesting case in Sweden, where females smoke more than males and the relatively low male-female longevity gap. Improved medical management of fatal diseases might also have reduced the gap. Women are the healthier sex and real champions in the ultimate game of life. Nature has given women a biological advantage over men, perhaps to compensate for the structural disadvantages they experience. Biology is only a part of the story since it cannot answer why the female advantage in life expectancy would fluctuate over time. The biological gap in life expectancy between women and men is a natural destiny which no society can avoid. However, the social gap in life expectancy is unjust and unfair. We can rarely alter our biological makeup, but we can promote healthy lifestyles and design a society where both men and women will have a fair chance to maximise their health potential.

*Source: M. Zakir Hossain. The Daily Star, Dhaka August 23, 2020*

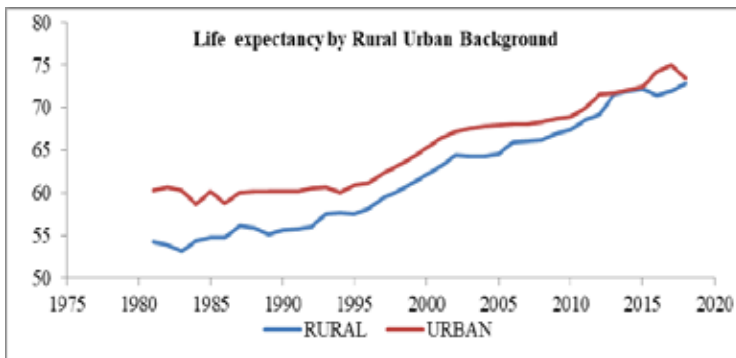
### **2.3 Rural-Urban Inequality**

The trend in life expectancy by Rural-Urban background: SVRS 1981-2018.

The data on life expectancy for the total population according to the rural-urban

region is presented in Chart 3. It may be mentioned here the life expectancy values for the years 1981-2012 have been taken from SVRS Reports. But SVRS Report no longer presents life expectancy values by Rural-urban breakdown since 2013. As such, life expectancy values for 2013-2020 have been computed by the present scribe using the age-specific mortality rates available in the SVRS reports for the respective years. Life expectancy was consistently lower for rural areas from 1981-to 2012. In 1981 the life expectancy for the urban population(60.3 years) was six years higher than their rural counterpart(54.3 years). Over three decades, the difference in life expectancy was greatly minimised to 2.3 years- the urban population now has a life expectancy at birth of 71.7 years, and the rural population has a life expectancy at birth equal to 69.2 years. Since 2013 we have seen a lot of fluctuations in the development of rural and urban life expectancy at birth.

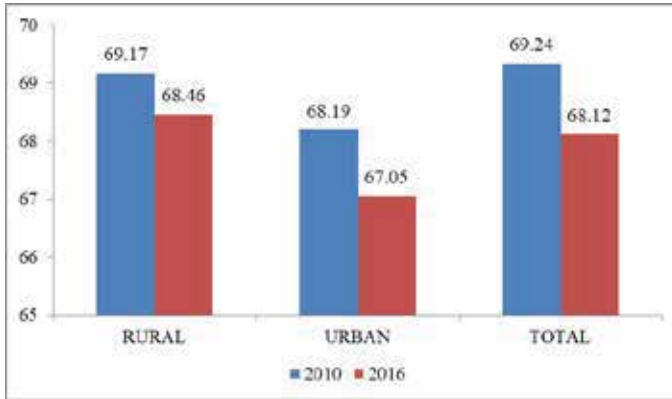
Chart 3: Inequality in Life Expectancy by Rural-Urban Areas



**Source and note:** Author's analysis. Data source BBS SVRS

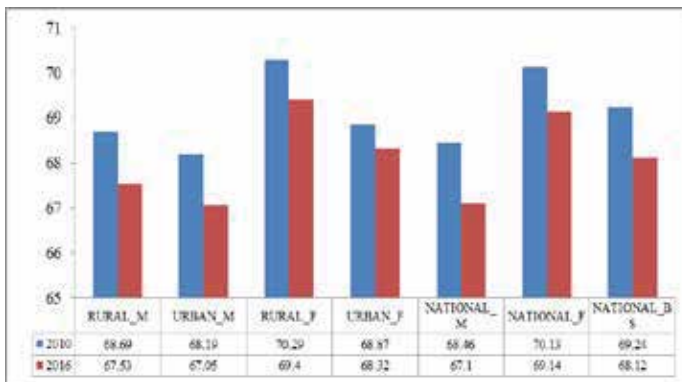
The trend in life expectancy according to gender and rural-urban background obtained from the analysis of Bangladesh Maternal Mortality and Health Care Surveys is given in Chart 4. The life expectancy was found to be lower in 2016 compared to 2010. The decline in life expectancy in rural areas was 1.14 years. In an urban area, the fall was 0.71 years, and for the total population, the loss in life expectancy at birth stood at 1.12 years. Similar synchronous loss of life expectancy is also visible in chart 5 according to gender and regional background.

Chart 4: Life Expectancy Inequality by Rural-Urban Area



Source and note: Author’s analysis. Data source BMMHCS

Chart 5: Trend in Life Expectancy by gender and Rural-Urban Area



Source and note: Author’s analysis. Data source BMMHCS

### 3. Urban-Rural Inequality in Life Expectancy in Various Countries

#### 3.1 The United States

Singh and Siahpush (2014), in a study on rural-urban inequality in life expectancy at birth in the United States between 1969 and 2009, found that when stratified by gender, race, and income, life expectancy ranged from 67.7 years among poor black men in nonmetropolitan areas to 89.6 among poor Asian/Pacific Islander women in metropolitan areas. Rural-urban disparities widened over time. From 1969-to 1971, life expectancy was 0.4 years longer in metropolitan than in nonmetropolitan areas (70.9 vs 70.5 years). By 2005-2009, the life expectancy difference had increased to 2.0 years (78.8 vs 76.8 years). The rural poor and rural blacks currently experience

survival probabilities that urban rich and urban whites enjoyed four decades earlier. Causes of death contributing most to the increasing rural-urban disparity and lower life expectancy in rural areas include heart disease, unintentional injuries, COPD, lung cancer, stroke, suicide, and diabetes. Between 1969 and 2009, residents in metropolitan regions experienced more significant gains in life expectancy than those in nonmetropolitan areas, contributing to the widening gap.

### **3.2 The United Kingdom**

(Kyte and Wells, 2010). examined inequalities in health outcomes in rural areas. It investigated variations in life expectancy at birth between rural and urban areas of England, taking the effect of deprivation into account. The study aimed to produce results which provide specific evidence of the needs of rural communities, as they have often been overlooked in previous research. For the 2001-07 period, life expectancy at birth in England was 76.9 years for males and 81.3 years for females. However, when deprivation was examined, results between the most deprived and least deprived quintiles varied by 7.8 years for men and 5.4 years for women. Overall, life expectancy was higher in rural areas than in urban areas. Deprivation greatly impacted the results, and vast inequalities were evident, particularly in men and the urban regions. In both places, males living in the less deprived quintiles had similar life expectancies to females living in the more deprived quintiles. Life expectancy was higher in the village and dispersed settlements than in town and fringe areas within rural areas. There were significant differences between the village's fourth and fifth (most deprived) quintiles and dispersed settlements, which shows that there may be acute pockets of deprivation within this area type that need to be addressed. In terms of sparsity, there was little difference in life expectancy between densely and less densely populated localities within rural and urban areas. However, variations were observed when deprivation was considered, and more significant differences were evident in less sparse areas than in sparse areas.

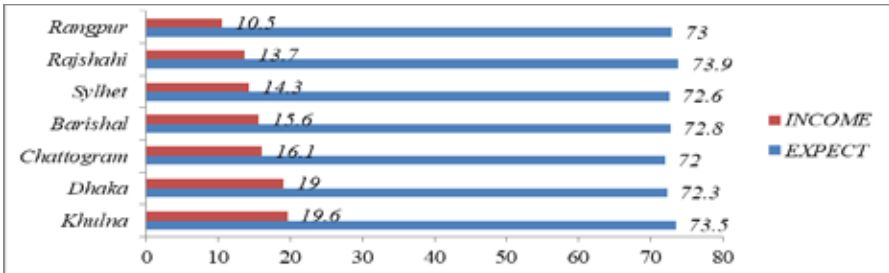
### **4. Inequality in Life Expectancy Between Males and Females**

Women have always lived longer than men, but the gender gap in 1841 (2 years) was relatively small because of the high prevalence in the 19th century of diseases that killed men and women indiscriminately. In the late 19th and early 20th centuries, the gender gap in life expectancy started to widen, peaking at 6.3 years by 1971. Reasons for the widening gender gap included poor working conditions and smoking among men in contrast to improved life chances for women, for example, lower risk of dying in labour and tuberculosis, which affected women more than men. The gender gap narrowed from the 1970s to 3.7 years in 2019, with mortality falling faster in males than females because of decreases in smoking and mortality from cardiovascular diseases among men. However, the gender gap widened in 2020 to 4 years because mortality rates from Covid-19 were higher in males than females.



### 4.1 Regional Disparity

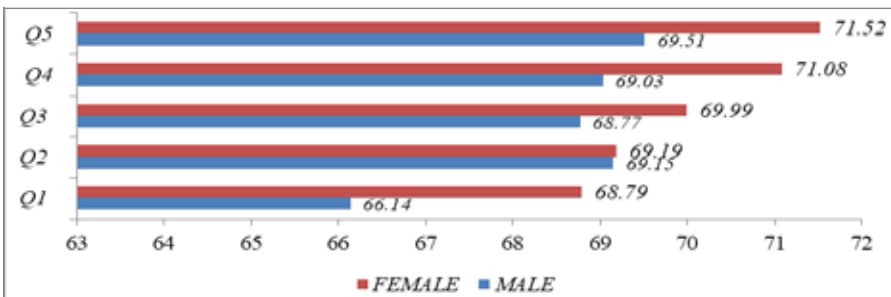
Chart 6: Household Income and Life expectancy: Bangladesh SVRS 2016



Source and note: Author’s analysis. Data source BBS SVRS and HIES

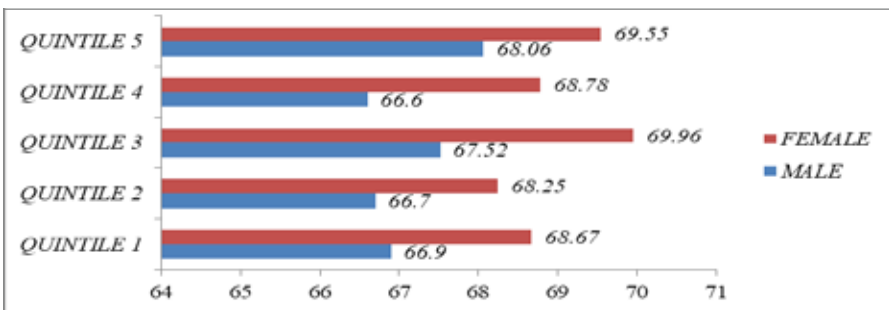
The Pearson correlation coefficient between Income and life expectancy was -0.170, statistically highly insignificant (P=.716).

Chart 7: Life Expectancy by Household Wealth Quintile :Bangladesh: BMMHCS 2010



Source and note: Author’s analysis. Data source BMMHCS 2010

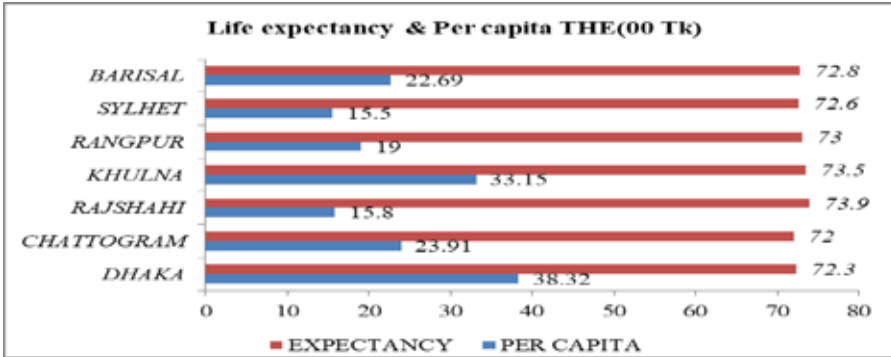
Chart 8: Life Expectancy by Household Wealth Quintile :Bangladesh: BMMHCS 2016



Source and note: Author’s analysis. Data source BMMHCS 2016

## 4.2 Health Care Expenditures and Life Expectancy

Chart 9: Life Expectancy band Per Capita THE (Hundred Tk)



**Source and note:** Author’s analysis. Data source SVRS and BNHA.

We observe that the highest value of life expectancy at birth of 73.9 was found for the Rajshahi division, followed by 73.5 years for Khulna and 73.0 years for Rangpur. The lowest life expectancy at birth, 72.0 years, is observed for Chattogram division. The correlation coefficient between Percent THE and life expectancy was low, negative (-.384), and statistically insignificant( $P = .395$ ). The correlation coefficient between per capita PHE and life expectancy was positive, low (.040), and statistically insignificant( $P = 0.932$ ). They are based on only seven observations. That’s all we have for the time being.

## 5. Life Expectancy in India

Regarding Rural-urban inequality in life expectancy in India, we observe that Urban life expectancy of 71.5 years is 4.8 years higher than the rural area life expectancy of 66.7 years. We have also presented the data for four states- West Bengal, Assam, Bihar and Odisha. The difference in urban to rural life expectancy is 1.2 years for West Bengal, 4.6 years for Odisha, 5.5 years for Bihar and 7.3 years for Assam.

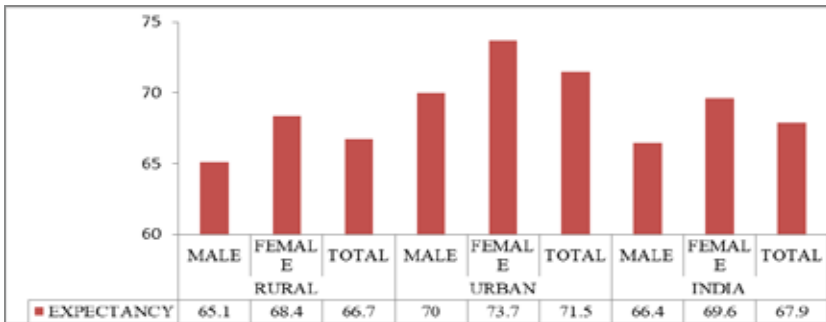
Table 1: Life Expectancy in India 2010-14

Rural			Urban			Total		
Male	Female	Total	Male	Female	Total	Male	Female	Total
India								
65.1	68.4	66.7	70.0	73.2	71.5	66.4	69.6	67.9
West Bengal								
68.0	70.8	69.4	71.0	73.5	72.2	68.9	71.6	70.2
Assam								
61.9	64.5	63.0	69.1	71.8	70.3	62.7	65.5	63.9
Bihar								
64.1	66.5	65.2	70.2	71.3	70.7	67.8	68.4	68.1
Odisha								
64.1	66.5	65.2	68.7	71.0	69.8	64.7	67.1	65.8

Source and note: <https://www.disabled-world.com/calculators-charts/in-lifespan.php>

Data Sources: Human Development Index Report, United Nations Development Program (UNDP) India and Sample Registration Survey (SRS) based life table 2010-14

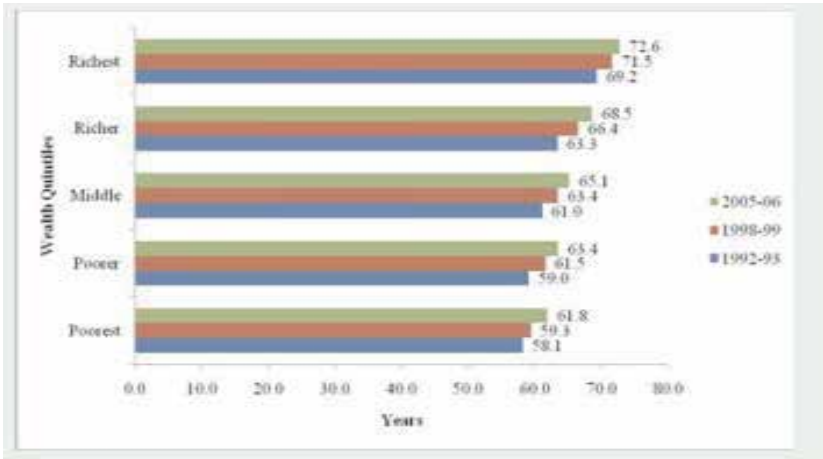
Chart 10: Life expectancy by Gender and Residence, India



Source and note: <https://www.disabled-world.com/calculators-charts/in-lifespan.php>

Data Sources: Human Development Index Report, United Nations Development Program (UNDP) India and Sample Registration Survey (SRS) based life table 2010-14

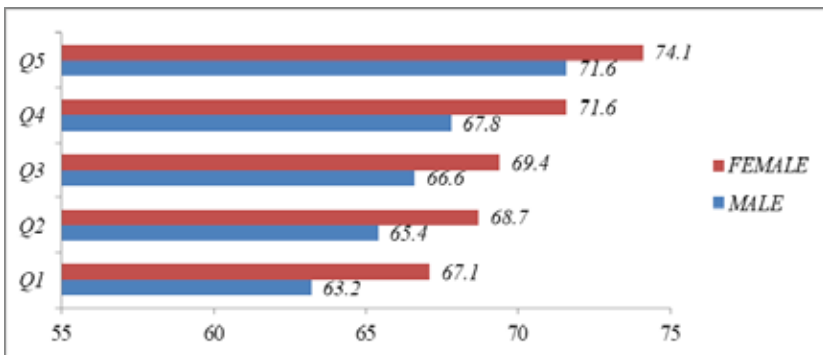
Chart 11: Trends in life expectancy at birth by Wealth Quintile in India:1992-2006



Source and note: Chart adapted from Mohanty and Ram, 2010

In a study on socio-economic inequality in India, Asaria et al. (2019) found that life expectancy is higher for women than men and higher in urban areas than rural areas. Women had a higher life expectancy at birth and narrower wealth-related disparities in life expectancy than men. Life expectancy at birth was higher across the wealth distribution in urban households than in rural households, with inequalities in life expectancy widest for men living in urban areas and narrowest for women living in urban areas. At birth, the life expectancy was 65.1 years for the poorest fifth of households in India compared with 72.7 years for the wealthiest fifth of households. This constituted an absolute gap of 7.6 years and a relative gap of 11.7 %.

Chart 12: Life Expectancy by Household Wealth Quintile: India 2011-15



Source: BMJ Global Health 4 (3). 2019.

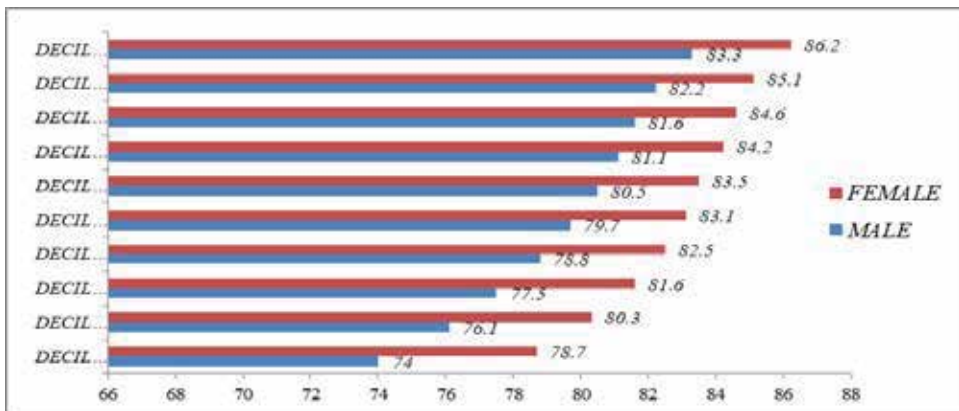
Table 2: Life expectancy at birth for India by sex, Geography and Wealth Quintile

	Urban			Rural			Overall		
	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall
<b>Wealth quintile</b>									
Q1 Poorest	66.4	70.8	68.4	62.2	65.9	64.0	63.2	67.1	65.1
Q2 Poorer	67.7	71.9	69.6	63.7	67.3	65.5	65.4	68.7	67.0
Q3 Middle	70.3	73.7	71.9	65.2	68.5	66.7	66.6	69.4	67.9
Q4 Richer	72.3	74.8	73.5	66.9	69.8	68.2	67.8	71.6	69.6
Q5 Richest	75.5	77.0	76.3	69.7	72.5	71.1	71.6	74.1	72.7
<b>Total</b>	<b>70.5</b>	<b>73.5</b>	<b>71.9</b>	<b>65.6</b>	<b>68.7</b>	<b>67.1</b>	<b>66.9</b>	<b>70.0</b>	<b>68.3</b>
<b>Inequality</b>									
Absolute: Q5-Q1	9.1	6.2	7.8	7.5	6.6	7.1	8.3	7.0	7.6
Relative: (Q5/Q1)-1	13.8%	8.8%	11.4%	12.1%	10.0%	11.0%	13.2%	10.5%	11.7%

\*Note national wealth quintiles used for overall columns, national urban wealth quintiles for urban columns and national rural wealth quintiles for rural columns.

Source: Adapted from BMJ Global Health 4 (3). 2019.

Chart 13: Life Expectancy by Deprivation Deciles: England 2015-17



Source and note: Author’s analysis. Data Source: <https://www.ons.gov.uk>. Decile 1: Most deprived area, Decile 10: Least deprived area

People in more affluent areas live significantly longer than those in deprived areas. In 2015–17, males in the least deprived 10 per cent of areas in England could expect to live to 83.3 years, almost a decade longer than males in the 10 per cent most deprived areas (74.0 years). Females in the least deprived 10 per cent of areas in England could expect to live to 86.2 years, compared with 78.7 years for females in the most deprived areas, a difference of almost eight years. Much of this inequality is caused by higher mortality from heart and respiratory disease and lung cancer in more deprived areas. The male-female difference in life expectancy is greater in more deprived areas. For example, females in the most deprived areas live 4.6 years longer than males, compared with 2.9 years in the least disadvantaged areas.

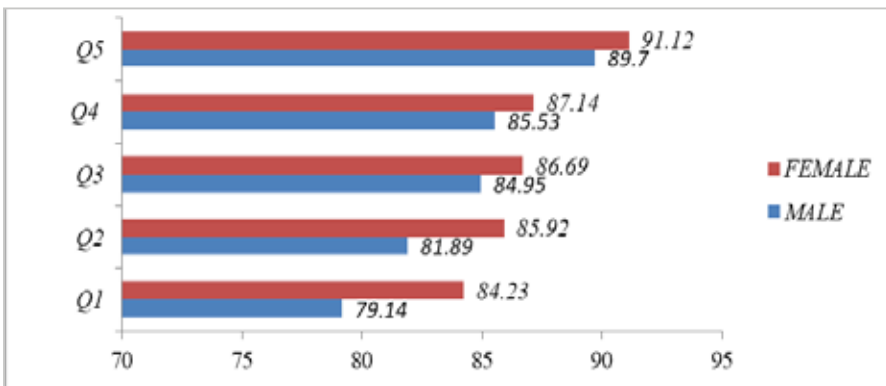
Socio-economic inequalities in life expectancy are widening due to more significant gains in life expectancy in the least deprived populations. Males and females living in the least disadvantaged areas of England saw a substantial increase in life expectancy between 2014–16 and 2017–19; in the most deprived areas, no significant changes were observed (Raleigh, 2021).

### 5. Covid-19 and inequalities in mortality in England

Mortality from Covid-19 has had an unequal impact on different population sub-groups and exacerbated inequalities. Between 2019 and 2020, life expectancy in males fell by almost two years in the poorest decile of areas (from 74.3 to 72.4 years) compared with 1 year in the richest decile (from 83.6 to 82.6); for females in the poorest areas it fell by 1.6 years (from 78.9 to 77.3) compared with 1 year in the richest (86.8 to 85.8). As a result, the gap in life expectancy between the richest and the poorest areas widened in 2020 to 10.2 years for males and 8.5 years for females, compared with 9.3 and 7.9 years, respectively, in 2019. Although 2020 life expectancy data isn’t yet available for all population sub-groups, mortality data for other groups also shows inequalities, which will impact life expectancy. For example, learning disabilities: mortality from Covid-19 is about 1.5 times higher among people with a learning disability or self-reported disability than those without a disability.

Ethnicity: although most ethnic minority groups had lower overall mortality than the white population before the pandemic, that differential was reversed in 2020 in some groups because of their higher risk of infection and mortality from Covid-19 (Raleigh, 2021).

Chart 14: Life Expectancy by household Income Quintile: United States. 2014



**Source and note:** Author’s analysis. Data source. [www. healthinequality.org](http://www.healthinequality.org) , [www. health- ineqonline2](http://www.health-ineqonline2)

## 6. COVID 19 and Life Expectancy in the United States

COVID-19 has resulted in a staggering death toll in the United States: over 215,000 by mid-October 2020, according to the Centers for Disease Control and Prevention. Black and Latino Americans have experienced a disproportionate burden of COVID-19 morbidity and mortality, reflecting persistent structural inequalities that increase the risk of exposure to COVID-19 and mortality risk for those infected. We estimate life expectancy at birth and age 65 y for 2020, for the total US population and by race and ethnicity, using four scenarios of deaths—one in which the COVID-19 pandemic had not occurred and three including COVID-19 mortality projections produced by the Institute for Health Metrics and Evaluation. Our medium estimate indicates a reduction in US life expectancy at birth from 1.13 y to 77.48 y, lower than any year since 2003. We also project a 0.87-y decrease in life expectancy at age 65 y. The Black and Latino populations are estimated to experience declines in life expectancy at birth of 2.10 and 3.05 y, respectively, which are several times the 0.68-y reduction for Whites. These projections imply an increase of nearly 40% in the Black-White life expectancy gap, from 3.6 y to over five y, eliminating progress in reducing this differential since 2006. Latinos, who have consistently experienced lower mortality than Whites (a phenomenon known as the Latino or Hispanic paradox), would see more than a 3-year survival advantage reduced to less than one year (Andrasfay and Goldman, 2021).

*Table 3: Life expectancy Projections for the United States in 2020 by Race and Ethnicity under different COVID-19 mortality Scenarios*

**Table 1. Life expectancy projections for the United States in 2020 by race and ethnicity under different COVID-19 mortality scenarios**

Race and ethnicity	Total population life expectancy		Non-Latino White life expectancy		Non-Latino Black life expectancy		Latino life expectancy	
	At birth ( $e_0$ )	At age 65 y ( $e_{65}$ )	At birth ( $e_0$ )	At age 65 y ( $e_{65}$ )	At birth ( $e_0$ )	At age 65 y ( $e_{65}$ )	At birth ( $e_0$ )	At age 65 y ( $e_{65}$ )
Absent COVID-19 (referent)	78.61	19.40	78.52	19.32	74.88	18.09	81.82	21.44
IHME current projection (medium scenario)	77.48	18.53	77.84	18.69	72.78	16.36	78.77	19.20
Difference (years)	-1.13	-0.87	-0.68	-0.63	-2.10	-1.73	-3.05	-2.24
IHME mandates easing scenario (higher mortality scenario)	77.39	18.46	77.79	18.64	72.62	16.23	78.54	19.03
Difference (years)	-1.22	-0.94	-0.73	-0.68	-2.26	-1.86	-3.28	-2.41
IHME universal masks scenario (lower mortality scenario)	77.63	18.65	77.93	18.78	73.05	16.58	79.16	19.48
Difference (years)	-0.98	-0.75	-0.59	-0.54	-1.83	-1.51	-2.66	-1.96

Source is authors' calculations of life expectancy projections in 2020. Difference refers to the difference between the projection and the absent COVID-19 scenario. Calculations are based on IHME projections that were updated October 9, 2020.

**Source and note:** Adapted from Andrasfay and Goldman, 2021

### 7. Life Expectancy and Income in Norway

Kinge et al. (2019), in a study on life expectancy in Norway, observed that life expectancy was highest for women with income in the top 1%, which was 8.4 years longer than women with income in the lowest 1%. Men with the lowest 1% income had the lowest life expectancy- 70.6 years, 13.8 years less than men with the top 1% income. From 2005 to 2015, income differences in life expectancy increased, mainly attributable to deaths from cardiovascular disease, cancers, chronic obstructive pulmonary disease, and dementia in older age groups and substance use deaths and suicides in younger age groups. Over the same period, life expectancy for women in the highest income quartile increased by 3.2 years, while life expectancy for women in the lowest income quartile decreased by 0.4 years. Life expectancy increased by 3.1 years for men in the highest income quartile and 0.9 years in the lowest income quartile. In Norway, there were substantial and increasing gaps in life expectancy by income level from 2005 to 2015.

### 8. COVID-19 and Cross-National Study on Life Expectancy in 29 Countries

The cross-national study involving data from 23 countries by Aburto et al. (2021) on the impact of COVID-19 on life expectancy reveals that Life expectancy at birth declined from 2019 to 2020 in 27 out of 29 countries. Males in the USA and Lithuania experienced the most considerable losses in life expectancy at birth in 2020 (2.2 and 1.7 years, respectively). Still, reductions of more than an entire year were documented in 11 countries for males and eight among females. Reductions were primarily attributable to increased mortality above 60 years and official COVID-19 deaths. The COVID-19 pandemic triggered significant mortality increases in 2020, a magnitude not witnessed since World War II in Western Europe or the breakup of the Soviet Union in Eastern Europe. Females from 15 countries and males from 10 ended with lower life expectancy at birth in 2020 than in 2015.

Chart 15: Loss/Gains in Life Expectancy at Birth

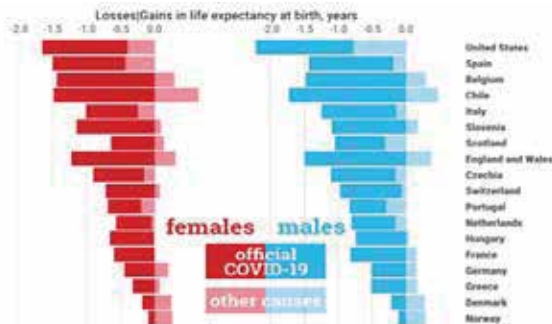


Figure 5 Contributions (in years) to changes in life expectancy at birth from 2019 to 2020 attributable to official COVID-19 deaths and remaining causes of death. Countries are sorted from largest to smallest losses. The sum of both components adds to the total change from 2019 to 2020 in a given country. All data points are provided in a table in Supplementary File 2, available as Supplementary data at IJE online.

Source and note: Chart Adapted from Aburto et al. (2021)



**Key Messages**

- This is the first study to assemble a high-quality data set of harmonized mortality estimates, life tables and age by cause decomposition for 29 countries representing most of Europe, Chile and the USA to provide novel evidence of the cumulative, comparative impacts of the pandemic on population health.
- Out of 29 countries analysed, the COVID-19 pandemic led to losses in life expectancy in 27, with large losses of life expectancy of >1 year in 11 countries for males and 8 among females.
- Losses in life expectancy observed in Central and Eastern European countries in 2020 exceeded those observed around the dissolution of the Eastern Bloc (with the exception of Lithuania and Hungary), whereas similar magnitudes of losses in Western Europe were last seen around World War II.
- Compared against recent trends, females from 15 countries and males from 10 ended up with lower life expectancy at birth in 2020 than in 2015—a year when life expectancy was adversely impacted already due to an especially bad flu season.
- Losses in life expectancy were largely attributable to increased mortality above age 60 years and linked to official COVID-19 deaths.

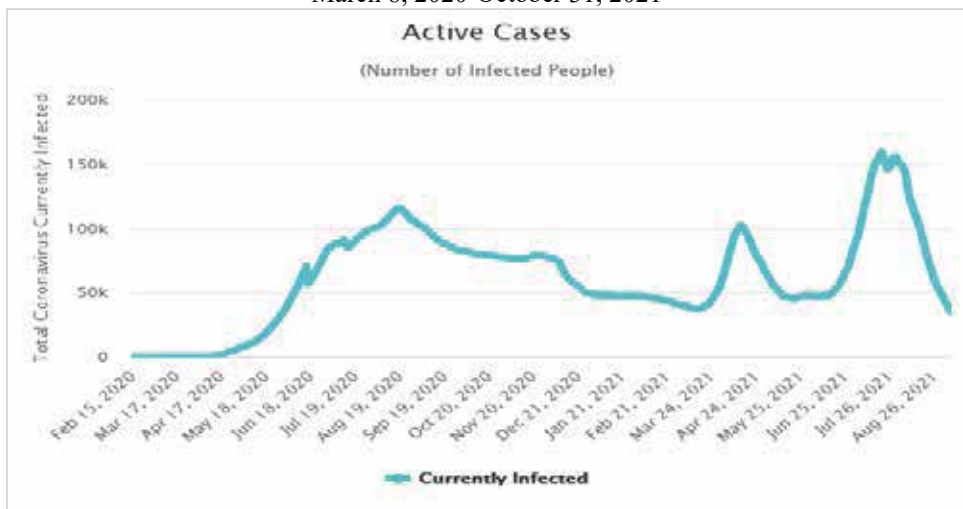
## 9. COVID-19 in Bangladesh

The transmission of novel coronavirus (Covid-19) broke out in Bangladesh on March 8, 2020, when three active cases were detected. Some indicators of the COVID-19 pandemic for Bangladesh and the World are given in table 4 and charts 16-18. The number of daily active cases kept increasing and reached a peak of 115779 on August 18, 2020, after which it gradually declined to 37155 on March 14, 2021. This period is the 1st wave of the COVID-19 pandemic in Bangladesh. The number of daily active cases then started rising again and reached a high level of 102128 on April 13, 2021, after which it gradually declined to 47088 on June 5, 2021. The number of daily active cases started rising again, reaching the highest level so far to 159224 on July 20, 2021, after which the number of active instances gradually declined to a group of 11752 on October 31, 2021- time of writing this article. From mid-March to the present(October 31), the period is usually considered the 2nd wave of COVID-19. Experts are pretty apprehensive of a possible 3<sup>rd</sup> wave beginning in late 2021. According to DGHS and Worldometer COVID-19 Dashboard, as of October 31, 2021, the total number of confirmed cases in Bangladesh was 1569539; the total deaths due to COVID-19 has been 27868, and the total cases recovered was 1553423. From the DGHS Covid-19 Dashboard, 17226 tests were conducted on October 31, 2021, out of which 211 were confirmed (positive), giving a daily positivity rate of 1.22%. The positivity rate has hovered below 5% in the last few weeks. COVID-19 was first identified in Wuhan, China, in December 2019. Since then, it has spread to 221 countries and territories, and as many as 247.46 million persons have been infected with the COVID-19, out of which 224.13 million have recovered, and 5.01 million have died (October 31, 2021). There is widespread apprehension that many infections and deaths are grossly under-reported. The actual figures should be 5-10 times higher than those revealed.

Table 4: Selected Indicators of COVID 19 Pandemic

Indicators	Bangladesh		World
	October 31(GMT), 2021	From March 3, 2020, to October 31(GMT), 2021	From Dec 2019 to October 31(GMT), 2021
(1)	(2)	(3)	(4)
Lab test	17,226	10,349,879	698,692,194
Confirmed cases	211	1,569,539	247,463,665
Recovered cases	276	1,553,423	224,135,456
Deaths	6	27,868	5,014,977
Active cases/a	11,752/a	11,752/a	18,313,232/a
Recovery rate(%)	-	98.97	90.57
Case/infection rate(%)	1.22	15.16	34.41
Death rate(%) <sup>b</sup>	2.84	1.77	2.02
Vaccination	64,596	13,977,045	6,838,727,352

Chart 16: Graph of Daily Active cases of COVID-19 in Bangladesh: March 8, 2020-October 31, 2021



Source & note: Worldometers. <https://www.worldometers.info/coronavirus/country/>

bangladesh Active cases: The number of confirmed cases minus the number of recovered cases and deaths. It is the number of patients still considered to be infectious.

Chart 17: Graph of Total Infected Cases of COVID-19 in Bangladesh from March 8, 2020, to October 31, 2021

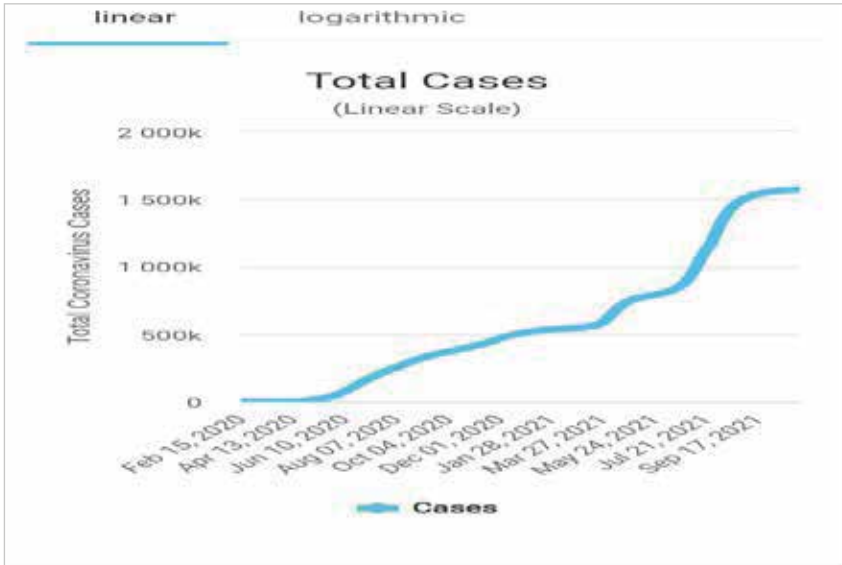
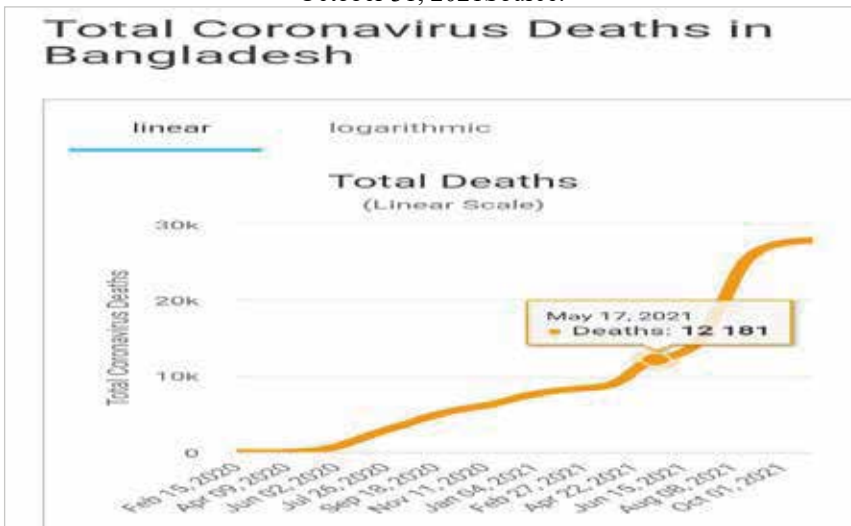


Chart 18: Total COVID-19 Deaths in Bangladesh, March 8, 2020, to October 31, 2021 Source:



Worldometers. <https://www.worldometers.info/coronavirus/country/bangladesh>

## 10. Discussion and Conclusions

There are substantial socio-economic health inequalities in Bangladesh, like in many other countries. There is no reason to believe that inequality is inherent and eventual. If the government wants to tackle these, targeted policies with clear impacts on reducing health disparities should be identified and pursued. Monitoring health inequalities over time will help determine whether such policies have been successful and provide a first step towards understanding the determinants of these inequalities and the effectiveness of interventions in tackling them.

The increase in life expectancy has become a global phenomenon mainly due to improved medical technology and quality of life. The increase in life expectancy and the survival rate into old age, coupled with decreasing birth rates and lower death rates, impacts the population structure and has led to an increase in the proportion of the total population older than 65 years. In 1950, just 5% of the world's population was over 65; in 2015, the share was 8%, and it is expected to rise to 16% by 2050. The proportion of the total population above 65 is higher in developed countries. In Bangladesh, the population of 65 years and above will be 8.5% in 2021, and it is expected to be 20.4% in 2050, according to WPP 2019. Improvements in healthcare have increased life expectancy. Better healthcare technology is vital for maintaining and improving the health characteristics of the older population and future generations. It will enable the elderly to be economically active beyond 65.

The conclusion can be made that the most critical factors that will determine the impact of increased life expectancy in the 21st century are: The ability of an ageing population to extend the duration of their participation in economic activities over their life expectancy, and Improvements in healthcare technologies, especially for the aged.

These two factors are relevant for building insightful scenarios because the economic participation of the ageing population will decrease the pressure on government spending on health care and pension pay-outs due to the increased life expectancy. In contrast, technology improvements will determine the ageing population's ability and quality to participate in economic activities.

Our analyses of life expectancy show that the pandemic exacted a striking toll on population health in 2020 across most of Europe, the USA and Chile. Only males and females in Denmark and Norway and females in Finland successfully avoided drops in life expectancy in our cross-national comparison of 29 countries. Recent research from the USA, for example, shows that socially disadvantaged populations such as Blacks and Latinos experienced losses three times higher than those reported here at the national level. Emerging evidence further indicates that non-COVID-19 excess mortality was concentrated in working ages. However, a lack of data currently limits direct and more disaggregated comparisons across a broader range of countries. Still, these are urgently needed to understand the full mortality impacts of the pandemic (Aburto et al., 2021).

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## Impact of COVID-19 Pandemic on Poultry Sector in Northern Bangladesh

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### Abstract

*The COVID-19 pandemic has created an undesirable impact and uncertainty in the poultry sector of Bangladesh. COVID-19 and its accompanying effects have severely affected about 65–70 thousand commercial poultry farms in Bangladesh. Many small and medium poultry farms are closed down or halted production due to the burden of continuous losses. There have been about 30-45% reductions in day-old chick production, 35-40% reductions in poultry feed production and 40-50% in the sale of medicines and other pharmaceutical products. It has created an unwanted mismatch between the demand for and supply of poultry products. This study attempts to determine to what extent the sector has been affected by the COVID-19 crisis. Data were collected from 81 Layer farms in Paba and Bagmara Upazila, 30 Broiler farms in Chorghat Upazila and 30 Sonali farms in Paba Upazila of Rajshahi district in Bangladesh using a pretested interview questionnaire. Respondents are interviewed between January 2021 and early July 2021. Collected data are analysed, and the result shows that 88% of Layer, 83% of Broiler and 73% of Sonali farmers do not get sufficient market demand for their products during the COVID-19 pandemic. About 90% of Layer, 86% Broiler and 76% Sonali producers do not get enough market price for eggs and meat. Result also shows the loss among Layer, Broiler and Sonali farms and producers. About 81% of Layer, 76% Broiler and 86% Sonali producers say that they do not get financial support from the government to mitigate losses during the COVID-19 pandemic. Government should retaliate by providing financial assistance to poultry producers and could develop long-term, sustainable strategies to ensure further capacity building.*

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## 1. Introduction

From Wuhan city in China, Coronavirus (COVID-19) spread to 212 countries worldwide and infected 30 million people by 18 September 2020. The coronavirus disease (COVID-19) is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), belonging to the species Severe acute respiratory Syndrome-related CoVs (SARS-rCoV). COVID-19 creates one of humankind's biggest health and economic crises. Around 258 million people have been affected by COVID-19, and around 5 million people died worldwide (World Health Organization, 22 November 2021). In Bangladesh, the first case was registered on 8 March 2020, and up to the 25 November 2021, overall, 1574636 confirmed cases and 27958 people died (IEDCR, 22 November 2021). It has created a severe negative impact not only on the health sector in the country but also on all aspects of living conditions. In addition to its effects on public health, COVID-19 has affected social and economic life in many ways. COVID-19's effects on the significant economic and financial indicators of the economy of Bangladesh, including agriculture, livestock sector, industrial sector, production, wages, price levels, investments, remittances and foreign trade (BBS).

The livestock sector is one of Bangladesh's most promising and hopeful sectors. About 0.3 million dairy farms and about 65–75 thousand commercial poultry farms are currently operating in the country (The Financial Express, 2020). The Department of Livestock Services reported that the contribution of livestock to Bangladesh's Gross Domestic Product (GDP) is 2.9 %, with the GDP growth rate of the livestock sector being 5.5%. The livestock sector contributes 23.2% to the overall agricultural GDP in Bangladesh (BSS, 2021). This sector generates 20% direct employment and 50% partial, which also plays a vital role in the national economy of Bangladesh. More than 70% of rural households are engaged in livestock, contributing a more significant share to the livelihoods of rural people and landless families. But the recent COVID-19 pandemic negatively affected this sector and other sectors of Bangladesh. Government has lockdown people's movements to control the spread of the disease. Like all livelihood sectors, the livestock sector falls into a severe complication. The Poultry product market is also facing continuous loss. Disrupted production and transportation, declining consumer demand and fluctuating market price of chicken and eggs brought substantial financial difficulties. Many small and medium poultry farms are closed as a result of the impact of the pandemic (BPICC, 2020).

Bangladesh's Poultry Industry is one of the critical job generators for people and has an investment of Tk. 350 billion (BPCCI, 2021). The poultry sector contributes to Gross Domestic Product (GDP) by 1.5-1.6 per cent and annually grows at an average 12-15 per cent rate (DLS, 2020). The poultry sector has

incurred a loss of Tk115 billion within just two weeks, from 20 March to 4 April 2020, as it has been hit hard by the Covid-19 pandemic (BPICC, 2020). The prices of poultry products have drowned to a record low in 12 years due to COVID-19 (OHPH, 2020). According to Bangladesh Poultry Industries Central Council (BPICC) data, following the detection of coronavirus in the country, poultry feed production fell by 75%. The unit price of the Day-One-Chick (DOC) came down to Tk1.0 from the production cost of Tk35, and the sale of processed poultry food declined by 95% since 20 March.

In 2018-19, the total production of eggs in Bangladesh was 17.11 billion. It met 98.8% of the country's demand. Overall meat production was 7.6 million metric tons (MOFL-Ministry of Fisheries Livestock, 2020a). After March 2020, these production levels fell by around 50% (Berkhout, 2020). Lockdown effect, disruption to supply and transport was a primary reason for this. It significantly adversely affected all stakeholders along the transaction chain, from producers to sellers, resulting in a sharp fall in chicken and egg prices. Retailers reported that they could not continue regular trading practices in markets and shops. This resulted from government restrictions on all businesses to prevent public gatherings (World Health Organization, 2020b). In addition, all kinds of social, religious and political events such as weddings, parties, religious congregations, and election campaigns, where chicken and eggs were necessary food items, were banned (Ali, 2020). While the closure of restaurants, including those of the fast-food or quick-service restaurants, further greatly impacted the demand, the disruption of transport chains and the closure of several wholesale markets and malls in the cities affected the supply chains. As in the case of eggs, the lack of sufficient storage facilities in large layer farms and cold-chain facilities led to forced disposal of the produce at a through-away price.

Meanwhile, rumours have circulated on social media linking chicken consumption with coronavirus. One rumour that gained public attention was that consuming poultry and poultry products could cause COVID-19 (Islam and Babu, 2020; Mahmud, 2020). Several shocking incidents have been reported from different places of the country, such as burying thousands of live birds to avoid the spread of COVID-19, killing and burning the birds in masses and just giving them for free due to a decline in sales. Several small and medium-scale poultry farms continue the grow-out farming activities with the hope to profit from the sale of the products later.

The backyard poultry sector, small, medium and large scale poultry farms, landless labourers, small hatcheries, and small and medium feed mills probably have been equally affected due to the COVID-19 pandemic. The poultry hatcheries have been badly affected due to almost no demand for chicks from the growers. Small-scale and medium-scale poultry farmers have weak access to formal institutions for support services for finance, birds' health, poultry management and marketing of eggs and chickens.

They are obstructed by a lack of capital, skills, knowledge and modern

technologies (Islam et al., 2014; Rahman et al., 2014). As small-scale farmers are not organised to receive government support, they have received little financial support to mitigate losses due to the COVID-19 pandemic and escape hardship.

## 2. Literature Review

The COVID-19 crisis has affected the world in an unprecedented way (Loayza and Pennings 2020). Like all the countries, Bangladesh also felt the negative shock of COVID-19. The government has made several attempts to control the pandemic, including national lockdowns, travel restrictions, border closures and controls. These attempts have resulted in some inevitable negative consequences. The livestock and poultry sectors are no exception. (Hamid et al., 2017) found that price fluctuation of live birds and eggs, the rising price of poultry feed, scarcity of DOC, and lack of technical knowledge are significant challenges to developing the poultry sector. Moreover, the insufficient coordination between the country's public-private and research institutions and inadequate government oversight of the poultry sector is hampering the development of this sector. Despite these challenges, COVID-19 still presented a new and extreme challenge to the sector, introducing new problems and exacerbating some of these existing ones.

Abdullah et al. (2021) researched whether seasonal variations could have explained observed poultry price patterns; prices for the first half of 2020 were compared with those for 2016. Forty-three vendors operating in six markets in Dhaka and Chattogram were interviewed monthly about the retail prices of their exotic broiler and chickens to assess price changes over a year. By 25 March, their price had dropped by 28% compared to their 1 January 2020. Feed production decreased by nearly 40% between April and June 2020 (Saeque, 2020).

Several news articles also presented rumours as a major cause of the drop in consumer demand for poultry products (Ali, 2020; Sharma, 2020). These articles describe how misconceptions about the potential transmission of COVID-19 by chickens and other meat products led consumers to cut back on chicken consumption, contributing to a sharp drop in market demand with the result that prices fell by as much as 75% (Mahmud, 2020).

The Bangladesh Poultry Industries Central Council (BPICC) reported that 50–60% of poultry farms closed temporarily in response to COVID-19 (Ali, 2020). 30% of Broiler farms and hatcheries that closed due to the pandemic in April 2020 have remained closed to date (Financial Express, 2021). Many large-scale farms reduced their flock size, resulting in chicken meat production rapidly declining from 900000 to 28000 tons per month (Ali, 2020). Food Agriculture Organization (2020b) says that for Layer farmers, the cost of production per egg was around BDT 5.50, but the market price fell to BDT 4.00. Nevertheless, it was reported that nearly 50% of eggs remained unsold. From the onset of the pandemic until April, 32–35% of the Layer farms were utterly closed (Ali, 2020). Many farmers sold

their laying birds before the end of their laying cycle to reduce financial losses.

Despite government efforts to reduce financial loss across the sector in the form of cash incentives, subsidised feed, medicine and vaccines and health messaging to counteract rumours, small and medium-scale poultry farmers still described the need for financial support from the government and urged national and international NGOs and multinational organisations to help (Amin, 2020; MOFL-Ministry of Fisheries and Livestock, 2020).

This study aims to focus on the impact of COVID-19 on small, medium and large scale Layer, Broiler and Sonali farms production and marketing in northern Bangladesh. The study also explores the role of government, NGOs and feed companies in limiting the losses of poultry farmers during the COVID-19 pandemic.

### **3. Materials and Methods**

#### **3.1 Source of Data**

Both primary and secondary data are used for the study. Data has collected from 81 Layer farm owners in Paba and Bagmara Upazila, 30 Broiler farm owners in Charghat Upazila and 30 Sonali farm owners from Paba Upazila using structured questionnaires from January 2021- to July 2021. These samples are selected randomly for the study. Besides, different print and electronic media reports are analysed to understand the effects of COVID-19 on the poultry sector. Secondary data are collected from other organisations, viz. Upazila Livestock Office, Department of Livestock Office (DLS) and Upazila Agriculture Extension office.

#### **3.2 Study Area**

This study uses quantitative and qualitative methods to assess the COVID-19 impact on the poultry sector. We select the Rajshahi district using purposive sampling. The study is conducted in Paba, Charghat and Bagmara Upazila of Rajshahi District. Paba Upazila is located 24°15' to 24°31' north latitudes and 88°28' east to 88°43' east longitude with an area of 280.42 sq. km. Charghat Upazila is located 24°14' to 24°22' north latitudes and 88°46' east to 88°52' east longitude with an area of 164.52 sq km. Bagmara Upazila is located in between 24°30' and 24°414' north latitudes and in between 88°41' east and 88°58' east longitude with an area of 363.3 sq. km (Source: Banglapedia).

#### **3.3 Data Collection Method**

Primary data from respondents is collected using questionnaire interviews. A set of interview schedules is designed for the study. The questionnaire is designed for both close and open form of questions. The interview schedule is developed logically so that poultry farmers can answer systematically. Each question is explained clearly and asked systematically for their sound understanding.

### **3.4 Data Processing and Analysis**

Mainly descriptive statistics are employed in analysing the data. The collected data are verified to eliminate errors and inconsistencies. Any inconsistencies in the collected data are searched and avoided from the relevant data. Data are processed and entered into the computer using MS Excel (Microsoft Excel) and SPSS (Statistical Package for Social Science) programming and analysed as per objectives by tabular and graphical method.

### **3.5 Demographic Profile of Survey Respondent**

The study analysis was based on 96% male and 4% female farm owner respondents. It is also found that about 66% of respondents have primary to higher secondary education and 6% have graduation and post-graduation education, and the remaining 28% are illiterate.

### **3.6 Size of Poultry Farms**

In this study, out of 141 respondents, 66% are engaged in agriculture, 31% are businessmen, and 3% are in services. Among 81 Layer farms, about 2% of respondents have small size farms (100-500 birds), 6% have medium (501-1000 birds), 88% have large sizes (1001-5000 birds), and the remaining have very large size (5000-above). Among 30 Broiler farms, about 4% of respondents have small size farms (100-500 birds), 30% have medium (501-1000 birds), 65% have large size (1001-5000 birds), and the remaining have very large size (5000-above). Among 30 Sonali farms, about 3% of respondents have small size farms (100-500 birds), 25% have medium (501-1000 birds) and 71% have large size (1001-5000 birds), and the remaining have very large size (5000-above).

### **3.7 Market Weight and Price of Chicken and Eggs During the Pandemic Period**

About 83% of Layer farm owners sold eggs produced in the wholesale market at below 5tk per egg, whereas they claimed that the cost of producing an egg was Tk 6. About 80% of Broiler farm owners considered market weight like 2 kg to 2.5 kg per bird, whereas the rest, 22%, sold Broiler weighing about 1.5 kg to 1.9 kg per bird. Most respondents (78%) sold Broiler for 30 to 38 days, and about 85% sold Broiler in the wholesale market at 105-110 taka per kg. About 86% of Broiler farm owners had a production cost of approximately 95-100 taka per kg live bird. About 83% of Sonali farm owners considered market weight 0.7 kg to 1kg per bird, whereas the rest, 17%, sold Sonali weighing 1kg to 1.2 kg per bird. Most respondents (80%) sold Sonali for 60 to 70 days, and about 75% sold Sonali in the wholesale market at 170-190 taka per kg. About 36% of respondents had a production cost of approximately 160-170 taka per kg live Sonali bird.

### 3.8 Training, Vaccination and Treatment of Poultry

Among 141 respondents, about 53% of farm owners have taken short training on bird rearing, poultry management, marketing and biosecurity. Around 95% of respondents vaccinated their birds regularly, and 70% of respondents used medicine and vitamin regularly to maintain birds' health.

### 3.9 Covid-19 Impact at the Household Level

Almost all respondents (94%) reported significantly reduced household income. The study findings confirm that 62% of surveyed households used their savings, and 25% took loans from NGOs and other non-government organisations to manage household expenditure during the COVID-19 pandemic. Around 11% of respondents reported that their household members lost their job or opportunity to earn due to the COVID-19 outbreak.

## 4. Results and Finding

From the structured survey questionnaire, the responses that were found from Layer farm owners are shown in Table 1.

*Table 1: Frequency distribution for the impact of COVID-19 pandemic on Layer production and marketing in Rajshahi district of Bangladesh*

Variables	Options	Frequency	Percentage (%)	Cumulative Percentage
1. Do you think the production is hampered during COVID-19 pandemic due to shortage of capital in proper time?	Strongly agree	63	77.7	77.76
	Agree	11	13.57	91.35
	Neutral	5	6.17	97.52
	Disagree	2	2.50	100
	Strongly Disagree	0	0	100
	Total	81	100	100
2. Do you agree that the optimum level of production is hampered due to lack of forecasting policy regarding the market demand of product?	Strongly agree	71	87.65	87.65
	Agree	5	6.17	93.82
	Neutral	4	4.94	98.76
	Disagree	1	1.24	100
	Strongly Disagree	0	0	100
	Total	81	100	100
3. Do you think the role of local livestock agency (Govt.) is satisfactory during COVID-19 pandemic?	Strongly agree	5	6.17	6.17
	Agree	18	22.22	22.22
	Neutral	12	14.81	43.2
	Disagree	41	50.62	93.82
	Strongly Disagree	5	6.18	100
	Total	81	100	100

Variables	Options	Frequency	Percentage (%)	Cumulative Percentage
4. Do you think the role of NGOs is satisfactory during COVID-19 pandemic?	Strongly agree	4	4.94	4.94
	Agree	9	11.11	16.05
	Neutral	11	13.58	29.63
	Disagree	31	38.27	67.9
	Strongly Disagree	26	32.10	32.10
	Total	81	100	100
5. Do you think the role of feed companies is satisfactory during COVID-19 pandemic?	Strongly agree	2	2.47	2.47
	Agree	9	11.11	13.58
	Neutral	15	18.52	32.1
	Disagree	41	50.62	82.72
	Strongly Disagree	14	17.28	100
	Total	81	100	100
6. Do you think the marketing system is hampered during COVID-19 period?	Strongly agree	49	60.50	60.50
	Agree	25	30.86	91.36
	Neutral	5	6.17	97.53
	Disagree	2	2.47	100
	Strongly Disagree	0	0	100
	Total	81	100	100
7. Do you think the fluctuation of market price of poultry product causes major damage in poultry sector during COVID-19 pandemic?	Strongly agree	78	96.30	96.30
	Agree	3	3.70	100
	Neutral	0	0	100
	Disagree	0	0	100
	Strongly Disagree	0	0	100
	Total	81	100	100
8. Do you get sufficient market demand for meat and eggs during COVID-19 pandemic?	Yes	9	11.11	11.11
	No	72	88.89	100
	Total	81	100	100
9. Do you get sufficient market price for meat and eggs during COVID-19 pandemic?	Yes	8	9.88	9.88
	No	73	90.12	100
	Total	81	100	100
Table 1 Continued				
10. Is there any scarcity of DOC during COVID-19 pandemic?	Yes	55	67.90	67.90
	No	26	32.10	100
	Total	81	100	100
11. Is there any scarcity of poultry feed during COVID-19 pandemic?	Yes	19	23.46	23.46
	No	62	76.54	100
	Total	81	100	100



Variables	Options	Frequency	Percentage (%)	Cumulative Percentage
12. Are there any scarcity of medicine, vitamin, vaccination and others inputs during COVID-19 pandemic?	Yes	60	74.07	74.93
	No	21	25.93	100
	Total	81	100	100
13. Do you get any financial Support from government to mitigate loses During pandemic?	Yes	15	18.50	18.50
	No	66	81.48	100
	Total	81	100	100
14. Do you get any financial Support from NGOs?	Yes	6	7.41	7.41
	No	75	92.59	100
	Total	81	100	100
15. Do you get any financial Support from feed companies?	Yes	49	60.59	60.59
	No	32	34.51	100
	Total	81	100	100

From the structured survey questionnaire, the responses that were found from Broiler farm owners are shown in Table 2.

*Table 2: Frequency distribution for the impact of COVID-19 pandemic on Broiler production and marketing in Rajshahi district of Bangladesh*

Variables	Options	Frequency	Percentage (%)	Cumulative Percentage
1. Do you think the production is hampered during COVID-19 pandemic due to shortage of capital in proper time?	Strongly agree	25	83.34	83.34
	Agree	4	13.33	96.67
	Neutral	1	3.33	100
	Disagree	0	0	100
	Strongly Disagree	0	0	100
	Total	30	100	
2. Do you agree that the optimum level of production is hampered due to lack of forecasting policy regarding the market demand of product?	Strongly agree	23	76.67	76.67
	Agree	5	16.66	93.33
	Neutral	2	6.67	100
	Disagree	0	0	100
	Strongly Disagree	0	0	100
	Total	30	100	100
3. Do you think the role of local livestock agency (Govt.) is satisfactory during COVID-19 pandemic?	Strongly agree	2	6.67	6.67
	Agree	6	20	26.67
	Neutral	2	6.67	33.34
	Disagree	12	40	73.37
	Strongly Disagree	8	26.67	100
	Total	30	100	100
4. Do you think the role of NGOs is satisfactory during COVID-19 pandemic?	Strongly agree	0	0	
	Agree	5	16.67	16.67
	Neutral	4	13.33	30
	Disagree	15	50	80
	Strongly Disagree	6	20	100
	Total	30	100	100



Variables	Options	Frequency	Percentage (%)	Cumulative Percentage
5. Do you think the role of feed companies is satisfactory during COVID-19 pandemic?	Strongly agree	2	6.67	6.67
	Agree	7	23.33	30
	Neutral	8	26.67	56.67
	Disagree	10	33.33	90
	Strongly Disagree	3	10	100
	Total	30	100	100
6. Do you think the marketing system is hampered during COVID-19 period?	Strongly agree	20	66.67	66.67
	Agree	6	20	86.67
	Neutral	4	13.33	100
	Disagree	0	0	100
	Strongly Disagree	0	0	100
7. Do you think the fluctuation of market price of poultry product causes major damage in poultry sector during COVID-19 pandemic?	Total	30	100	100
	Strongly agree	22	73.33	73.67
	Agree	7	23.34	96.67
	Neutral	1	3.33	100
	Disagree	0	0	100
	Strongly Disagree	0	0	100
8. Do you get sufficient market demand for meat and eggs during COVID-19 pandemic?	Total	30	100	100
	Yes	5	16.67	16.67
	No	25	83.33	100
9. Do you get sufficient market price for meat and eggs during COVID-19 pandemic?	Total	30	100	100
	Yes	4	13.33	13.33
	No	26	86.67	100
10. Is there any scarcity of DOC during COVID-19 pandemic?	Total	30	100	100
	Yes	17	56.67	56.43
	No	13	43.33	100
11. Is there any scarcity of poultry feed during COVID-19 pandemic?	Total	30	100	100
	Yes	22	73.33	73.33
	No	8	26.67	100
12. Are there any scarcity of medicine, vitamin, vaccination and others inputs during COVID-19 pandemic?	Total	30	100	100
	Yes	20	66.66	66.66
	No	10	33.34	100
13. Do you get any financial Support from government to mitigate losses During pandemic?	Total	30	100	100
	Yes	7	23.33	23.33
	No	23	76.67	100
14. Do you get any financial Support from NGOs?	Total	30	100	100
	Yes	3	10	10
	No	27	90	100

Variables	Options	Frequency	Percentage (%)	Cumulative Percentage
15. Do you get any financial Support from feed companies?	Yes	6	20	20
	No	24	80	100
	Total	30	100	100

From the structured survey questionnaire, the responses that were found from Sonali farm owners are shown in Table3.

*Table 3: Frequency distribution for the impact of COVID-19 pandemic on Sonali production and marketing in Rajshahi district of Bangladesh*

Questions	Options	Frequency	Percentage (%)	Cumulative Percentage
1. Do you think the production is hampered during COVID-19 pandemic due to shortage of capital in proper time?	Strongly agree	17	56.67	56.67
	Agree	9	30	86.67
	Neutral	2	6.67	93.34
	Disagree	2	6.67	100
	Strongly Disagree	0	0	100
	Total	30	100	100
2. Do you agree that the optimum level of production is hampered due to lack of forecasting policy regarding the market demand of product?	Strongly agree	15	50	50
	Agree	8	26.67	76.67
	Neutral	4	13.33	90
	Disagree	3	10	100
	Strongly Disagree	0	0	100
	Total	30	100	100
3. Do you think the role of local live-stock agency (Govt.) is satisfactory during COVID-19 pandemic?	Strongly agree	2	6.67	6.67
	Agree	5	16.67	23.34
	Neutral	7	23.33	46.67
	Disagree	14	46.67	93.34
	Strongly Disagree	2	6.67	100
	Total	30		100
4. Do you think the role of NGOs is satisfactory during COVID-19 pandemic?	Strongly agree	6	20	20
	Agree	5	16.67	36.67
	Neutral	2	6.67	44.34
	Disagree	15	50	94.67
	Strongly Disagree	2	6.67	100
	Total	30	100	100

Questions	Options	Frequency	Percentage (%)	Cumulative Percentage
5. Do you think the role of feed companies is satisfactory during COVID-19 pandemic?	Strongly agree	0	0	0
	Agree	3	10	10
	Neutral	4	13.33	23.34
	Disagree	16	53.34	76.67
	Strongly Disagree	7	23.33	100
	Total	30	100	100
6. Do you think the marketing system is hampered during COVID-19 period?	Strongly agree	22	73.33	73.33
	Agree	6	20	93.33
	Neutral	2	6.67	100
	Disagree	0	0	100
	Strongly Disagree	0	0	100
	Total	30	100	100
7. Do you think the fluctuation of market price of poultry product causes major damage in poultry sector during COVID-19 pandemic?	Strongly agree	26	86.67	86.67
	Agree	3	10	96.67
	Neutral	1	3.33	100
	Disagree	0	0	100
	Strongly Disagree	0	0	100
	Total	30	100	100
8. Do you get sufficient market demand for meat and eggs during COVID-19 pandemic?	Yes	8	26.67	26.67
	No	22	73.33	100
	Total	30	100	100
9. Do you get sufficient market price for meat and eggs during COVID-19 pandemic?	Yes	7	23.33	23.33
	No	23	76.67	100
	Total	30	100	100
10. Is there any scarcity of DOC during COVID-19 pandemic?	Yes	23	76.67	76.67
	No	7	23.33	100
	Total	30	100	100
11. Is there any scarcity of poultry feed during COVID-19 pandemic?	Yes	18	60	60
	No	12	40	100
	Total	30	100	100
12. Are there any scarcity of medicine, vitamin, vaccination and others inputs during COVID-19 pandemic?	Yes	19	63.33	63.33
	No	11	36.37	100
	Total	30	100	100
13. Do you get any financial Support from government to mitigate losses During pandemic?	Yes	6	20	20
	No	24	80	100
	Total	30	100	100
14. Do you get any financial Support from NGOs?	Yes	4	13.33	13.33
	No	26	86.67	100
	Total	30	100	100
15. Do you get any financial Support from feed companies?	Yes	8	26.67	26.67
	No	22	73.33	100
	Total	30	100	100

From Table 1, Table 2 and Table 3, it is found that most of the farm owners agreed with capital shortage during the COVID-19 pandemic. The optimum capital did not supply during the proper time of production. Most farm owners also agreed that the optimum production level is hampered due to a lack of forecasting policy regarding the market demand for the product. Here, producers showed their dissatisfaction with the government's local livestock agency. Because they think that the agency did not pay any attention to the poultry producer to mitigate losses during the COVID-19 pandemic. Respondents showed quite a dissatisfaction towards NGOs and feed companies. They did not come forward to help poultry producers to limit losses. Respondents strongly agreed that the fluctuation of the market price of poultry products caused significant damage in the poultry sector during the COVID-19 pandemic.

Most respondents did not get sufficient market demand and prices for eggs and chickens. Respondents say there was little scarcity of DOC, poultry feed, medicine, vitamin, vaccination and other input during the lockdown. Relationships between farmers with the hatcheries, feed producers and suppliers were not satisfied. Most respondents did not get any financial support from government, NGOs and feed companies to mitigate losses during the COVID-19 pandemic. Based on the results, the following findings are noted below:

Shortage of Capital due to lockdown and various restrictions on trade and transport hampered poultry production during the COVID-19 pandemic. The value chain system was not properly working due to a lack of capital and proper implementation of regulations and policies during the pandemic period. The lack of transportation facilities and the absence of value chain actors or intermediaries have hampered the appropriate distribution, which has led to the deterioration of farm products and unexpected prices down at the producer level. The lack of proper poultry policy principles was considered a primary restraint to limiting losses of poultry farmers. The relationships among the poultry farmer's associations were not cooperative as the poultry production market price fluctuation caused major damage. Limited access to the veterinary dispensary and minor health care, in the long run, would significantly impact the egg production of the laying birds.

Lack of technical efficiency created a burden to handling the poultry industry properly during the pandemic. Chicken rearing, poultry management, disease handling, production rate and biosecurity of farms were greatly influenced by inadequate knowledge of technology. The improper utilisation of feed, medicine and vaccine during lockdown caused a low production rate and high mortality rate that directly impacted poultry farms. The lack of intense collaboration and participation of government and non-government organisations, academic institutions, and feed industries was a barrier to effective decision-making during the COVID-19 pandemic.

## **5. Conclusion and Recommendations**

This paper aims to assess the impacts of COVID-19 on the poultry sector based on primary data from 141 Layer, Broiler and Sonali farms in the Rajshahi district of Bangladesh. This study reveals some necessary information about the effects of the COVID-19 pandemic based on preliminary findings. This study also focuses on the future challenges of the poultry sector. It sets up some practical recommendations to overcome suffering and hardship and to uplift the present situation of this sector efficiently. Further research would be required to understand the full extent of the impacts that COVID-19 have to impress on this sector in future which is being initiated by this research.

This study implies that the government must develop strategies to prevent and counter the spread of false news and misleading information in anticipation of any future pandemic like COVID-19. Public information campaigns should continue through electronic and print media and other social media and communication platforms to promote the nutritional value of consuming eggs and chicken for health and immunity.

The financial incentives announced by the government must reach vulnerable small and medium-scale poultry farmers. The rapid increase in poultry feed and medicine prices should be controlled. The procedure of getting and repaying bank loans needs to be made more accessible and flexible for the livestock sector as most of this sector's farmers are not educated. Interest-free or flexible repayment-based long-term credit facilities should be ensured for agro-based enterprises to revive from the severe shocks of COVID-19 and run their current business.

Results of this study imply that the government should be declared essential or strategic activities to continue smooth production and marketing during any pandemic like COVID-19. It is also necessary to develop an unhindered and fast transportation system to maintain the proper distribution of agricultural and poultry products around the country. Besides this, the policymaker should establish a constructive pre-plan for rehabilitation and agreement on alternative income-generating activities for stakeholders in this sector affected by any natural disaster in future. Online resources and e-commerce should be extended to connect producers with consumers and explore alternative sales and distribution platforms for poultry and poultry products.

In conclusion, this study's result could be helpful to farmers and researchers in identifying the problems related to the production and marketing of the poultry sector. This study would also help farmers tackle any future pandemic like COVID-19 affecting this sector negatively.

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## Reshaping Bank Leadership and Governance in the Context of New Normal

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### Abstract

*The global banking industry is taking a changed shape. Innovation, technology-led disruption, convergence, and data analytics are reshaping the banking industry. Considering the market development and concerns associated with the Covid-19 crisis, banks should focus on capital, liquidity, operational capacity, customers' preferences, financial infrastructure, business restructuring, regulatory compliance issues, financial crime, and cybersecurity concerns. A transformed and integrated strategy by the banking institutions to handle these issues is connected with effective business continuity measures and long-term business development. The transformation is necessary to sustain and avail the opportunity to leverage banks' role in economic support programs to improve their reputation and speed up digitisation and digitalisation. In such a stage of transformation, demands from banks' leadership have become exponentially more significant, which is not easy to meet. From the risk management standpoint, this is the time for adopting an enterprise approach to cope with the changing environment. Improved and reshaped corporate governance in banks might help handle the situation better in this complex situation. The paper's objective is to sketch the reshaped leadership and governance practices for the banking industry in the wake of the Covid-19 scenario. The paper identified an indicative leadership-governance framework for the long-term sustainability of banks.*

**Keywords** *Bank leadership · Bank governance · COVID-19 · New Normal*

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## 1. Background Note

Policymakers, business entities, banks, and other establishments have been confronting the Covid-19 pandemic at a high economic cost.<sup>1</sup> Commercial banks are left with no option besides responding to the immediate challenges. Still, they must reassess their approaches, work persistently on business continuity, and review models to align with the future business. It is about a balanced approach to on-going damage repair and finding paths for long-term growth strategies to drive growth and avail opportunities.<sup>2</sup> The banking industry has a significant role in revamping the economy by changing or adjusting its operating models. And in this process, the reshaped form of leadership and governance in banks remains particularly crucial.

Innovation, technology-led disruption, convergence, and data analytics are reshaping the banking industry (Bellens, 2020b). Considering the market development and concerns, banks should focus on specific areas: capital, liquidity, operational capacity, customers, financial infrastructure, business diversification and restructuring, regulatory reporting and compliance, and financial crime and cybersecurity issues. A transformed and integrated strategy to handle these issues is connected to the effective business continuity measures and the long-term growth and development of the business. Banks must rethink how they deliver services, their products, their relationship with consumers, and their roles in the community, which require pushing the ‘reset button’ instead of simply resuming business as usual (Marous, 2020). The transformation is necessary to sustain and avail the opportunity to leverage banks’ role in the economic support programs for improving their reputation and speeding up the digitisation. In such a stage of transformation, demands for banks’ leadership have become exponentially uprising which is not easy to meet.<sup>3</sup> From the risk management standpoint of banks, this is the time for adopting an integrated approach as the Covid-19 pandemic shows the clear business benefits of managing risk from an enterprise-wide perspective (Gartner, 2020). The need for good governance and risk management practices has been more significant than ever before. The bank’s senior management and boards should continually review their practices to ensure they are suitable for the current environment in light of the fast-changing environment (Elison, 2020).

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<sup>1</sup> “Countries, multi-nationals, airline carriers, international chains and small businesses all assess the economic costs of the pandemic in terms of economic contraction, deficits, debt restricting, redundancies and unemployment rates, rescue packages etc.” (Vella, 20200).

<sup>2</sup> “As banks look for opportunities to drive growth, they should focus on transforming their business lines, channels and products while balancing continued regulatory scrutiny and the growing threat of disintermediation; leading banks will have a clear sense of the path ahead, and success will arise from a balanced execution of tactical initiatives and longer-term transformation and growth strategies” (Ernst and Young: [https://www.ey.com/en\\_gl/banking-capital-markets-transformation-growth](https://www.ey.com/en_gl/banking-capital-markets-transformation-growth)).

<sup>3</sup> Leadership in a crisis like Covid-19 is not the same as the business as usual; demands on management have become very high and it has become harder for the leaders to execute their roles (Deloitte, 2020).

The paper attempts to portray the reshaped leadership and governance framework of the banking industry in the Covid-19 situation that is crucial to offering adequate support to the economy and essential for the sustainability of banking businesses. This secondary data-based paper highlights the greater engagement and a responsible approach on the part of bank boards in the management decision-making as the situation demands. Initiating the background discussions in section 1; the subsequent sections dealt with relevant conceptual and literature review (section 2); the desired role of the board and senior management in the Covid-19 situation (section 3), and a structure of the leadership-governance framework in this challenging situation of the business and financial downturn (section-4).

Leadership-Governance in banks during crises with particular reference to Covid-19

Leadership and Corporate governance are with the processes and operating relations to achieve organisational goals. However, these issues in banks cannot be compared<sup>4</sup> with other businesses because of the banks' unique ownership structure and the associated agency relationship in the management of banking activities. Banks are highly regulated because of these unique features and protect the interest of the depositors, i.e. the majority owners. Banks' leadership is a group behaviour, and corporate governance in the context of banks is much more inclined towards compliance, transparency, and responsible behaviour that have distinctive implications for all stakeholders (Habib and Shahidullah, 2020).

The 'Effective leadership' approach and 'Good Corporate Governance' practice reinforce the top management and the board's collective oversight and risk governance responsibilities. In this context, Enterprise Risk Management (ERM) framework appears to be a suitable approach in a crisis, which is a recognised approach to address the systemic risk of banks' financial and non-financial nature. Despite the importance of ERM, which received renewed attention following the 2006-08 global financial crisis, it did not receive due impetus with its integrated and preparedness approach in banks. One of the most valuable aspects of an effective ERM process is that it leads to more prosperous and more robust conversations about risks by installing a solid communication network that might impact a business (Mark, 2020). As the coronavirus spreads, the situation necessitates ERM and reaffirms the business case for methods, processes, response thresholds, and actions to protect enterprise goals, earnings and capital (Gartner, 2020). Failure of leadership and corporate governance was implicated in the financial crisis of 2006-08 when inadequate risk management, the irrational expectation of profit and inappropriate pay structure were placed at the centre. In response to these,

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<sup>4</sup> The corporate governance of banks differs from the corporate governance of ordinary companies, due to the nature of the banking business, the complexity of its organization, the uniqueness of banks' balance sheets, the need for protection of the weakest party in the chain (i.e. the depositors), and the systemic risks caused by bank failures (EBRD: <https://www.ebrd.com/what-we-do/sectors/legal-reform/corporate-governance/banks.html>).

multilateral and national financial reforms attempt to strengthen the board's oversight of management processes and position risk management as the board's key responsibility (UNCTAD, 2020).

Top management and board must cooperate to focus on internal governance during a crisis to address potential damage.<sup>5</sup> Based on analysing crises situations, Riva et al. (2018) note that corporate governance is particularly crucial in downturn times; otherwise, a firm might be affected miserably; and if the crisis is monitored promptly and appropriate measures are taken, not only the enterprise may continue to operate, but it may also be able to seize growth opportunities. It has been observed that in an institution with sound corporate governance practices, boards often play a crucial role in reinforcing the purpose of the organisation with management, reminding leaders of societal obligations, and making sure that, even in the depth of the crisis, the entity's response serves the heart of the organisation (Deloitte, 2020).

Banks' leaderships are expected to change their approach and roles during financial and business difficulties, as evidenced by the literature on earlier crises. These are commonly connected with handling harsh business conditions, enhanced risk management, business diversification and regulatory responses. Regarding risk management, there is an expectation that boards and risk committees would be meeting more frequently during crises or economic and financial disruption. In all crises and for all banks, boards must review their existing arrangements and determine the best for their particular situation - there is no one size fits all approach (Elison, 2020). Responding to the regulatory and supervisory expectations is among banks' key responsibilities and critical challenges during a crisis. Regulatory and societal expectations from banks' boards and senior management increase exceptionally in emergencies, and banks' responses to policymakers' expectations have proven implications. Meeting the expectations is costly; however, failure to respond adequately might be more expensive (Bolton et al., 2019).

The pandemic and the new normal are testing the resilience of the traditional banking business models; employees were asked to work from home, working hours were reduced, certain branches were closed, consumers lost their jobs, and new products and financial solutions were thrust upon the banking ecosystem and so on. These developments challenged back-office operating systems, credit risk models, online banking capacity and exiting security arrangements (Marous, 2020). Regarding strategic and policy reactions, a good response to the crisis might be addressing the liquidity pressure, capital requirement, financial stress and

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<sup>5</sup> The potential negative effects of bank failures are very damaging for both the economy and society, as was demonstrated during 2006-8 global financial crisis; thus, it is now acknowledged that the corporate governance of banks should be, focusing more on the 'internal governance' during crisis. (EBRD: <https://www.ebrd.com/what-we-do/sectors/legal-reform/corporate-governance/banks.html>).

other operational concerns of banks by supporting business continuity, resilient leadership, and human capital (Kucera et al., 2020). Given the unprecedented nature of the health crisis, banks need to consider immediate steps to augment, diversify and bolster systems and operational resilience (Allen and Overy, 2020). Also, adopting the right approach to support the economic recovery efforts of the policymakers and taking excellent care of the economically and socially vulnerable sections are essential at this critical time for the long-term sustainability of the banking institutions.

Key functional areas of banks (like deposit collection, credit processing and trade facilitation) are confronting newer challenges and risks. The existing and regular strategy has proven inadequate in ensuring a similar level of depositors' confidence and trust as before the crisis. The economic slowdown led to the banking sector's nonperforming loans (NPL). Private sector banks have the highest credit risk exposure during the outbreak, especially NPL arising from loans issued to the SMEs, airlines, hotels, tourism, restaurants, retail, construction and real estate businesses (Ozili and Thankom, 2020). Trade disruption affected trade payments and financing activities terribly; the situation improved, but uncertainty remains. IT and fin-tech received renewed attention during Covid-19. Countries across the globe reported an increase in cybercrime during the pandemic. The quick adoption of digitisation resulted in complexities and cyber threats in some cases (KPMG, 2020). Most of the leading regulators and several law-enforcing agencies<sup>6</sup> have warned banks and financial institutions to be vigilant about any such growing adversaries (Kosnar, 2020). Growing trade-based money laundering has become a concern for commercial banks during the pandemic (FATF, 2020). The European Banking Authority (EBA) asked banks to take additional measures while processing trade payments in the pandemic period (GTR, 2020). The bank-dominated financial sectors of the developing countries need grander governance and leadership efforts to survive and reignite growth in the post-Covid-19 scenario (Loayza and Pennings (2020).

Anticipated roles of Bank Boards and Senior Management in the reshaped strategy

During crises, bank boards must have a deep-rooted understanding of the evolving challenges, updated information, and scope of involvement.<sup>7</sup> Bank management's actions and communications must be transparent and focused. Board has a significant role in guiding and supporting management in the decision around<sup>8</sup> the fight for business continuity efforts. Recently, there has been an

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<sup>6</sup> Interpol and FBI warn of financial and frauds linked to Covid-19.

<sup>7</sup> "For board of directors, a good response is likely to be rooted in a deep understanding of the role of the board- knowing when to step in when not to, and how and when to engage in external activity- such as communicating with stakeholders, regulators and others" (Deloitte, 2020).

<sup>8</sup> The board acts as the stewardship body of a company for guiding and supporting management not only for survival but also for ensuring the company positions to emerge from the crisis stronger and more resilient (Deloitte, 2020).

increased engagement between the boards and management, not necessarily via the board committees (Elison, 2020). However, under no circumstances should the board and management roles be blurred.<sup>9</sup> The board can help set the tone of an entity for the desired response and ensure that management actions and communications are effective (Deloitte, 2020). Enhancing the existing reporting and information systems of banks is essential to provide oversight by the board to ensure that the board can receive relevant information on the material business risks and the implications thereof (Kucera et al., 2020). As businesses start to settle into the new reality, directors are bound to exercise a degree of care, diligence and skill in overseeing the operations with sufficiently updated information to perform their supervisory function effectively (Vella, 2020). Bank management needs the support of its board on very short notice in this challenging situation to respond to the sudden development.<sup>10</sup> The board should be giving the management the right amount of space to handle urgent issues, make decisions and provide needed leadership while remaining agile to take a more active role (Hostetler, 2020). To promote effective decision-making during the Covid-19 pandemic and aftermath, an environment of trust, respect, and shared concerns of the board-senior management should prevail (IDB Invest, 2020).

As a broad strategy, Wyman (2020) prescribes three critical areas of focus to serve on the part of banks' leadership: *one*, serving customers (i.e. ensuring access to essential services in affordable and comfortable terms); *two*, helping society (i.e. supporting affected customers and communities); and *three*, responding to financial difficulty (i.e. scenario planning, launching a special credit strategy, and operationalising restructuring capabilities). PwC (2020) put forward similar opinions regarding banks' responses to the situation that include specific steps related to supporting communities and customers, balancing medium to the long-term positioning of the institutions; concentrating on business continuity planning for survival; showing empathy to customers while making sound business decisions; rethinking balance sheet challenges while managing loan stress and customer sensitivity; finding ways to trim costs; resetting revenue outlook, and formulating the post-Covid-19 strategy. In an editorial, The Banker (2020) has considered the Covid-19 situation as a real opportunity for the banks to support their customers, employees and society and suggested banks respond positively. According to the editorial, banks must start by ending all bonuses and cancelling dividends so that the resources of the bank can be focused on helping both retail

<sup>9</sup> "All parties need to ensure that there is clarity in terms of the role of the board versus management; and this separation in functions is maintained. In a post Covid-19 world, where management and board decisions are being reviewed by external stakeholders, it will be important to be able to demonstrate that boards fulfilled their duties and did not inadvertently take on management functions." (Elison, 2020).

<sup>10</sup> Based on regular and updated information and with different perspectives, the board may support management and can push management to make difficult decisions if there is hesitancy in this Covid-19 situation (Deloitte, 2020).

and business customers with mortgage and loan holidays; banking associations should also step up by coordinating measures (where they do not fall foul of competition rules) and putting out an industry message about what is being done (Banker, 2020).

The pandemic has been an acid test for banks across the globe in terms of diversification and de-risking their strategies. While policy responses and moratoriums might have provided breathing space in the short run, deep restructuring of many banking systems would be needed in the medium-term (Carletti, 2020). Communication became vital in ERM and has been crucial in this Covid-19 crisis (Beasley, 2020). As part of ERM, addressing compliance risks and supporting policymakers became particularly important. Based on the experience from the last economic and financial crisis, it can be speculated that banks may face similar regulatory scrutiny and backlash<sup>11</sup>, and reputation<sup>12</sup> might be at stake as they did during the 2008-09 crisis if they fail to meet the expectations of policymakers and broader society (Barker, 2020).

Digitisation and technology adoption has no alternative for banks today. The impact of technology on bank business models has already been profound, and it is now expected to be enormous. Newer business models with the massive application of digital technologies might be the critical choice of bank leadership to transform their business. These changes and corresponding responses are expected to enable banks to offer new products and services with improved efficiency and competitive advantage in the “new normal economy”. Notably, the bank board and senior management should play the most significant role in this transformation process. And to attain that capacity-building of the employees is particularly important. Banks’ board and senior management are expected to give priority to their employees alongside supporting their clients and the society at this critical time.<sup>13</sup> Boards need to ensure that the management can act quickly in a constantly evolving landscape and prioritise the safety and well-being of the employees and those who depend on the banks for essential services (IDB Invest, 2020).

As the long-term solution to the Covid-19 crisis, there is no alternative but to address the environmental concerns at the macro level, where banks might be a crucial stakeholders. IPBES (2020) rightly notes that there is a single species that is responsible for the Covid-19 pandemic - us; and adds that rampant deforestation, uncontrolled expansion of agriculture, intensive farming, mining and infrastructure

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<sup>11</sup> “During the banking crisis of 2008, several big banks went to great lengths to ensure that they did not require government support—largely so that they could retain freedom of action over key business decisions. But ultimately the behavior of the entire sector was viewed so negatively that it was subject to a huge amount of regulatory control which effectively turned banking into a compliance-driven activity.” (Barker, 2020).

<sup>12</sup> “If banks continue to pay large dividends and significant discretionary bonuses while at the same time failing to help sustain the survival of their SME clients, the consequences from a reputational perspective could be dire.” (Barker, 2020).

<sup>13</sup> “Think carefully about all your stakeholders and give employees greater priority” (Francke, 2020).

development, as well as the exploitation of wild species have created a ‘perfect storm’ for the spillover of diseases from wildlife to people. Also, some new technologies have altered how people interact with the natural environment, and some fundamentally unnatural interventions have resulted in considerable debate. Despite several benefits, these highly debated artificial interventions (like genetically modified crops and animal cloning) are blamed for threatening the natural order. Under such circumstances, bank leadership must play a proactive role in devising green products/ventures as an integral part of their reshaped strategy and transformation.

Key functional elements of the reshaped leadership-governance framework for banks

On the way to taking care of the interest of all stakeholders, it is time for leadership-governance to take new shape to ensure business continuity and the long-term sustainability of banks. An indicative leadership-governance framework may include the following functional elements:

**Engaged leadership-governance network and arrangement for continuous strategic adjustments:** Intense oversight responsibility of the board is crucial during an emergency that must be based on updated and regular information. Boards must constantly dialogue with management to help identify issues and provide strategic directions to handle evolving challenges. The boards must give management adequate discretion in handling hasty and vital issues while providing the sense that the board is ready to take more active roles if needed. The critical issues, including liquidity, capital and financial resilience, should be under continuous observation.

**Supporting policymakers with the appropriate strategy and regulatory expectations:** A bank must have an internal strategy for supporting economic recovery so that its clients and the bank itself can optimally benefit from these. As a crisis response strategy, policymakers around the globe are following almost common approaches of injecting money into the economy to ensure greater liquidity with the banks. However, national policy goals cannot be attained if banks do not respond to proactive approaches and finance the economic agents. Banks must be transparent with the regulator on collaboration and compliance issues in this critical situation.

**Business continuity as a continuous approach under Board-Senior Management leadership:** As part of its on-going monitoring and oversight responsibilities, the board should continue discussing any implementation issues with the management and evaluate whether any modifications to the existing business continuity plan are necessary to cope with evolving issues. For business continuity, bank boards need to monitor the on-going adjustments of management to ensure the effectiveness of management efforts and that management is both dealing with the immediate issues and looking ahead to the range of potential scenarios. Developments in vital functional areas covering general banking, credit, trade and foreign exchange operations must be under the constant scrutiny of the contingency teams.



**Effective enterprise risk management for greater integration of the Board with the risk management functions:** As boards revisit their strategies during and post Covid-19, risk management frameworks must be revised concurrently. It is the time for the bank boards and risk committees to interact more frequently and focus more on the consequences and less on the causes of risks.<sup>14</sup> Banks' boards and senior management should concentrate on risk appetite metrics and install contingency arrangements if needed. Banks need to update their newer form of credit risk, cybersecurity, crime and other operational risks to mitigate the evolving risk exposures in line with their risk appetite. Board and senior management must be satisfied with the reliability of the risk information and reports identifying the prioritisation of financial and non-financial risks.

**Attaining social and environmental goals for long-term benefits:** Bank leadership should focus on delivering essential banking services to the clients, long-term employee wellness, and fulfilling the social and financial needs of the community. Reaching the clients using a robust digital platform is a basic necessity in this new normal than ever before. Consumers need to know that their banks care about them, have concerns about their services and empathise with them in this time of need. The vulnerable situation offers an opportunity to support clients and affected communities, thus improving the reputation and image of the banks. Environmental, social, and governance (ESG) targets should emerge stronger from the crisis and even find newer growth prospects as part of the future of banking. Board and senior management must balance these responsible efforts to ensure longer-term sustainability.

**Working for business transformation:** It is high time for banks to reassess existing business strategies and move beyond crisis management. Simply responding to the evolving situations would hurt competitive advantage. Traditional profit motives of the commercial bank boards and leadership should be held back for a certain period. It should be a period for creating the right platform by investing in clients, communities, employees, and systems to develop medium and long-term business opportunities. It is now crucial for banks to move from crisis management to extensively working on business transformation. A wide-ranging change covering human resources, organisational structure, and governance is on the card covering significant workplace transformation, renewed and remarkable boosts of IT and fin-tech, and moving towards comprehensive digitalisation. Cost and investment issues and strategic changes must be adopted and adjusted at the board and senior management levels based on banking, business evolution, and future business considerations. Banks that have prepared strategic planning should move for enforcement, keeping the options flexible.

**Greater accountability maintaining the distinctive line between Board and Management:** Failure to cope with a reshaped strategic approach might

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<sup>14</sup> "During Covid-19 risk will become about the consequences not the cause." (Francke, 2020)



prove fatal. However, the bank board and the senior management must maintain the distinctive fundamental line between them regarding their scope of work for maintaining the sanctity of good corporate governance practices. It must be kept in mind that the boards' enhanced engagement in this unprecedented scenario must be encircled mainly by the noble causes of cooperating in the collective efforts of economic recovery, supporting vulnerable stakeholders, and undertaking longer-term strategies for igniting business growth and shouldering greater responsibilities.

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## Economic Impact of Covid-19 on SMEs in Cumilla using Structural Equation Modelling

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### Abstract

*The enterprises, which are small and medium-sized (SMEs), are the backbone of the industrial sector of the overall economy in Bangladesh. This sector plays an essential role in spreading the economy of any country. The SMEs sector's most significant role is invaluable to eliminating poverty in any country like Bangladesh. But it is impossible to reduce poverty in the Covid-19 pandemic situation. The main objective of this research is to inquire about the economic impact of Covid-19 on SMEs in Cumilla. It is too early to find the impact of COVID-19 impressions on different aspects of the economy. In Bangladesh, SMEs have been experiencing a brutal impact; as such, the motivation of the study is to increase insight relating to what is experienced by SMEs and how they are handling it. This study used a method of primary data of descriptive analysis acquired by the questionnaire method. Using the structural equation model, we find Covid-19 badly hampered the economy. So those governments need to invest essential effects for mobilisation and efficient reallocation of resources through assistance of Banks and other nonbanks economic instructions. Unemployment decreased economic growth speed, and social insecurity might come to light that prevails in future. Moreover, new technologies need to be used to reduce the harmful impacts. Public awareness programs should be organised.*

**Keywords** Bangladesh Economy · COVID-19 · SMEs · Structural Equation Modeling (SEM)

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## 1. Introduction

The enterprises, which are small and medium-sized (SMEs), are the backbone of the industrial sector of the overall economy in Bangladesh. This sector plays an essential role in spreading the economy of any country. The most crucial function of the SME sector is that it is inestimable to eliminate poverty in any country such as Bangladesh. But it is impossible to increase economic production in the Covid-19 pandemic situation. The COVID-19 pandemic has had historic ramifications around the whole world. To limit the expansion of the disorder, many countries adopted a lockdown system and social distancing measures. Although elastic in containing the virus, these measures have also precipitated an unprecedented economic problem for the country. We know small enterprise refers to the firm/business which is a private limited company and complies with the following criteria:

*Table 1: Structure of Small Enterprise*

Sector	Fixed Asset other than Land and Building (Tk.)	Employed Manpower (not above)
Service	50,000-50,00,000	25
Business	50,000-50,00,000	25
Industrial	50,000-1,50,00,000	50

**Source:** Alauddin and Chowdhury 2015

Medium Enterprise refers to the establishment/firm which is a private limited company and complies with the following criteria:

*Table 2: Structure of Medium Enterprise*

Sector	Fixed Asset other than Land and Building (Tk.)	Employed Manpower (not above)
Service	50, 00,000-10, 00, 00, 00	50
Business	50,00,000-10,00,00,000	50
Industrial	1,50,00,000-20,00,00,000	150

**Source:** Alauddin and Chowdhury 2015

These SMEs account for a large portion of production and employment in developing countries (Islam et al., 2020). Many countries have begun relaxing the lockdown to restart economic activities, which is expected to remain mitigated. Bangladesh started easing lockdown measures in June 2019, but the movement of people across the country and various economic activities is expected to

stay confined, as the number of COVID-19 cases has not reduced. Lockdown and social distancing measures have hit SMEs especially difficult. Because of lockdown, all activities are stopped, and people must stay home. They don't go to their working sector, so the production is badly hampered. According to the International Monetary Fund, the real GDP growth of Bangladesh is projected to depress to 2.0% in FY 2019-20, which is driven by reducing readymade garment exports, a decline in private investment growth and a more significant breakdown because of the problem of COVID-19 pandemic (Qamruzzaman 2020). Small and Medium enterprises are exceptionally compatible in the overpopulated countries like Bangladesh because the SME sector can provide enormous scope for employment for people with meagre investment. They are hoped to generate jobs, decrease poverty, and develop the overall national economy (Alauddin and Chowdhury 2015). But in this pandemic, people lost their jobs, so their income levels decreased, and their living standards also decreased. As a result, our economy is greatly hampered.

Decreasing poultry, dairy farm, and fisheries demand has led to a drastic price fall in the respective sectors. On top of that, due to industrial shutdowns, garment workers and urban day labourers lost their valuable jobs. Therefore, many people with no income shifted from cities to villages to lose their good jobs, putting the rural economy at a vulnerable stance. Egg prices dropped by 45%, milk prices felled around 35%, dry fish production decreased by 40%, and vegetable prices reduced significantly. Sizable and real-time support from the Government is needed to forestall the upcoming social and economic emergency in the rural sector (Qamruzzaman 2020). In this study, we will contribute to formulating policy for reducing the Covid-19 pandemic effect on the economy. Controlling this Covid-19 situation increases the speed of economic growth for SMEs. The study will contribute to the existing literature from Cumilla's perspective. We will also examine the worker and employment situation in the Covid-19 pandemic and compare the outcomes with the information with the initial data. The primary study focuses on the economic impact of Covid-19 on SMEs in the Cumilla city area during the Covid-19 pandemic with a social and physical distancing policy.

### **1.1 Statement of the Problem**

COVID-19 pandemic has a demolishing impact on the whole economy of Bangladesh. The current COVID-19 pandemic has influenced businesses across the globe by affecting nearly every business sector, and industry and the SMEs have been highly hit due to limited resources, unskilled and limited expertise. It badly hampered the economy of Bangladesh. This study is an effort to analyse the impact and consequences of the Economic Impact of Covid-19 on SMEs in Cumilla using the Structural Equation Model.

## 1.2 Significance of the Study

Covid-19 hurts the economy, society and other sectors of the country. Our economy is becoming hampered day by day. It is a need for time to reduce the economic impact. The present study needs to understand how and identify its effects on the economy. We need to control it as much as possible. If we can control it, it would benefit the whole country. Public awareness should be required in this case; otherwise, it will hamper the entire economy by increasing unemployment and decreasing income and living standards.

## 1.3 Objective of the study

The study's main objective is to inquire about the economic impact of Covid-19 on SMEs in Cumilla.

Specific objectives are:

- I. To find out the social impact of Covid-19 on SMEs in Cumilla
- II. To determine the current scenario of the SME sector in Bangladesh in the Covid-19 pandemic situation
- III. To find out the critical problems of the SME sector in the Covid-19 pandemic situation in Bangladesh and recommend various suggestions for minimising this pandemic situation.

## 2. Literature Review

Le *et al.* (2020) have examined that SMEs were experiencing disturbance because of a lack of interest payment, stationary inventory, wages of workers, and rental charges during this pandemic. Robinson and Kengatharan (2020) have studied the potential effects of COVID-19 on Sri Lankan SMEs. SMEs are exceedingly suffering because of the scarcity of the material, the reduction in both global and local demand for their commodities and services, difficulties in loan repayment and interest, the objection of orders, dire shortage of cash, and deficiency of savings (even problems with payroll bills and utility bills). The study also examined that the COVID-19 pandemic is emotionally challenging for SME employees and owners, so the government needs to take policies.

Nyanga and Zirima (2020) have studied Zimbabwe to Covid-19, applying qualitative techniques to show that SMEs were negatively influenced by the lockdown and hampered their operations and had to lay off some of their employees. In most cases, production was hampered. Lu *et al.* (2020) have examined that in China, SMEs could not resume their operation due to a lack of an inadequate supply of raw materials, almost "zero" market demand, and employees' inability to come to work. It also shows a liquidity crisis. Garba (2020) has examined the effect of COVID 19 on SMEs' performance in Makurdi Metropolis, Benue State, Nigeria, applying convenience sampling techniques with the inferential analytical tool and

identified that the pandemic had created a challenging business environment like zero level sales, liquidity crisis, and insignificant market demand.

Ahmed (2004) has studied the lack of adequate national policy and suitable supportive system and the lack of reliability of the authority with quality certification. SMEs of Bangladesh have failed to ensure the good quality of products and services in the domestic and global markets. Lack of investment funds is one of the most eminent alleges of almost the entire SME sector in Bangladesh. Sulaiman (2005) examined 50.53% of SMEs without access to a formal financial source. Only 35.79 % of SMEs have no limitation, and 13.68% face limitation entry to formal credit. Bank credit provides financing of usually less than 20 % of their total outlay. Most SMEs (59.6 per cent) find funding from banks for their working capital, but everyone doesn't get a loan.

Hasan and Islam (2008) have examined that typically banks unexpressed their interest in SME financing due to lower operational cost, less return and high-risk rate of return associated with the SME financing. The primary reason for the higher risk is that the small and medium entrepreneurs are unlikely to comply with the collateral requirements as they typically do not have immovable properties. Shahbaz *et al.* (2020) have examined that SMEs face many difficulties operating their business, revenues, and finances due to the toCOVID-19 pandemic. Carruthers (2020) has identified that the COVID-19 pandemic has significantly impacted small companies due to a lack of financial resources and scale of business, which would be concerned for a troublesome issue requiring guidelines for the business community and entrepreneurs.

Beraha and Đurićin (2020) have studied gauging COVID-19 impact on SMEs in Serbia, and data was collected through an online survey during March and April. They find that SMEs undergo remarkable experiences like switching businesses, inability to pay the constant responsibility, laying off employees, and facing limitations when accessing resources.

Ratnasingam *et al.* (2020) have elaborated that they revealed two key issues: financial management and the supply chain breakdown that makes the major scratch on business activities. They also examined that most SMEs were operating their business under capacity, a sizeable economic strain on their viability. Elshenawi and Wang (2020) have elaborated that SMEs are concerned that the powerless and vulnerable members would drive away from the business while the more skilful and forward-looking SMEs need to return more robust quickly. Chowdhury (2020) has stated that many people were involved in small businesses. Unemployment will cause a causal income shock, diminishing consumption and rising out of unemployment, decreasing the well-being of the individual and decreasing the economy's total demand.

Galanakis (2020) has stated that the current coronaviruses that create a pandemic have shaken the entire business world internationally, and also, there is no exception in the food industry.



Duchek (2018) and Miao *et al.* (2017) have examined that entrepreneurs who have strong self-belief and resilience can significantly raise performance expectations, especially for business ventures. Huggins and Thompson (2015) discussed that entrepreneurs' psychological resourcefulness would be necessary when facing various economic challenging activities.

Blau (1964) has studied that to inquire about the role of entrepreneurial working efficiency, entrepreneurial resilience towards handling SMEs economic performance and also strives to underline if innovative work behaviour of efficient entrepreneurs can help moderate these linear relationships to favour make the most of the psychological resourcefulness of entrepreneurs to handle their business and also to improve financial performance.

### 3. Methods of the Study

#### 3.1 Study Area and Data Sources

Cumilla district is the division of Chittagong in Bangladesh. It is located between 23<sup>00</sup>2' and 24<sup>04</sup>7' north latitudes and 92<sup>03</sup>2' and 91<sup>02</sup>2' east latitudes. It is surrounded by Brahmanbaria and Narayanganj districts on the north, Noakhali and Feni districts in the south, Tripura state in India on the east, and Munshiganj and Chandpur districts on the west. There are about 50 bricks of the field near human habitation in Cumilla. The study will use primary data to conduct the research. A questionnaire survey collected preliminary data on affected people and entrepreneurship. From the owner and workers of the SME sector, we have collected 220 respondents, and the survey was conducted in and around the SMEs sector. Collected data will be analysed by AMOS Statistical Tools Package software and plotted using Microsoft Office.

The study will use the primary data on the economic impact on workers and entrepreneurship, including living standards, consumable goods, income level, and unemployment rate explore the relationship among the variables.

#### 3.2 Model Specifications

To conduct the study, we will use an appropriate econometric model, such as Structural Equation Model (SEM), to represent its tabulated form and graphs.

$$E_{SME} = \alpha_0 + \alpha_1 EI + \alpha_2 CG + \alpha_3 AP + \alpha_4 ES + \alpha_5 LI + \alpha_6 RMG + \alpha_7 HS$$

Where,  $E_{SME}$  = Economic Impact of Covid-19 on SMEs,  $EI$  = Educational institution,  $CG$  = Consumption goods,  $AP$  = Agro processing and agro-based sector,  $ES$  = The electrical and electronics sector,  $LI$  = Leather industry,  $RMG$  = RMG sector,  $HS$  = handicraft sector.

$$EI_w = \alpha_0 + \alpha_1 IL + \alpha_2 LS + \alpha_2 CG$$

Where,  $EI_W$  = Economic impact on workers, IL=income level, LS= living standard, CG= consumable goods.

$$EI_O = \beta_0 + \beta_1 IL + \beta_2 CG + \beta_3 EW + \beta_4 UR$$

Where, Economic impact on the owner of SME, IL=income level, CG= consumable goods,  $EW$  = Expel workers,  $UR$  = Unemployment rate.

### 3.3 Explanations of the Variables

In the first equation, the economic impact of Covid-19 on SMEs is estimated by an educational institution, consumption goods, agro-processing and agro-based sector, the electrical and electronics sector, leather industry, RMG sector, and handicraft sector. The second equation estimates the economic impact on workers by income level, living standard and consumable goods. There are positive and negative impacts on workers. The third equation estimates the economic impact on SME owners by income level, consumable goods, expelled workers, and unemployment rate. There are positive and negative impacts of entrepreneurship.

### 3.4 Sample Size

For sample size determination, we will use the Fischer's general formula,

$$n = \frac{Z^2 \times P(1-P)}{M^2}$$

Where n=sample size for an unknown population, Z=Z-score, p=population proportion (assumed to be 50%= 0.50), M=Margin of error and Z-score is based on a confidential level where confidence level indicates the probability that the value of a parameter falls within a specific range of values. For simplicity, we will use 220 samples in this content. Collected data are analysed by AMOS Statistical Tools Package software and plotted using Microsoft Office.

## 4. Current Scenario of SME Sector in Bangladesh

About 6.0 million SMEs are actively performing in Bangladesh, and of the total GDP, they contribute 25%, making employment opportunities for about 31 million people and providing 75% of domestic income. The growth of GDP edged down to a 30-year-low of 3.51% in fiscal 2019-20 due to the Covid-19 pandemic situation, according to the Bangladesh Bureau of Statistics (BBS) in its final Thursday report. The manufacturing sector logged more than 14% growth in fiscal 2018-19 but fell to 1.8% in FY20. The development turned around that is 5.77% in the previous fiscal year.

Small enterprises have enhanced their contribution over the past decade to the total output of the GDP (Gross Domestic product). Bangladesh's economy examines the significant contribution from SMEs industry that contributes 25% cumulated growth in GDP, 15% in creating employment, 7.8% acceleration in

export growth, and 31% advancement in entrepreneurship improvement according to Bangladesh Bank (2017) report. Most of the business as 90% of business units belong to small enterprises with a revised definition of SMEs and about 80% of present employees working in this business. 75% of GDP compound with SMEs output and export-oriented products come from the SME sector of Bangladesh, which is 65% of the total (according to the Bangladesh Bureau of Statistics, 2017). The most significant growth rate was addressed in 2013, and the lowest growth rate was in 2007and. The growth tendency confirms that the SME sector is developing in future, and it will occur eventually.

The COVID-19 pandemic has hit hard Bangladesh's economy. The SME sector- considered the lifeline of the country's economy (it employs around 7.8 million people directly and livelihood to over 31.2 million overall)- is prospective to play an essential role in ensuring how soon the overall economy could make a turnaround to come out of the Covid-19 devour. The findings of the rapid survey examined by the Business Initiative Leading Development (BUILD) and the Policy Exchange of Bangladesh identified that 69 per cent of respondents reported that they were unable to pay wages to staff in 2020 due to the Coronavirus pandemic while 61 per cent of respondents think The situation has not improved and their revenue would fall in 2021. Because of the Covid-19 pandemic, the industry sector decreased in 2020 to 29.65, which is 28.79 in 2019 (World Bank-2021). From 2016-to 2019 growth rate increased, but due to the Covid-19 pandemic situation, in 2020, the GDP decreased is 3.51% & 2021, it was 4.5%. We think if we control the Covid-19 situation, GDP will increase in the future (IMF 2021).

## 5. Empirical Results and Discussion

We analyse our data based on respondents' information. We have collected data through the questionnaire method. We perform our analysis based on Microsoft Excel rules and AMOS SPSS and do a descriptive analysis from this collected data. We conduct our analysis on our questionnaire. We collect data from 220 respondents by questionnaire method.

*Table 3:Age Structure of the Respondents*

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-30	60	27.3	27.3
	31-40	100	45.5	72.7
	More	60	27.3	100.0
	Total	220	100.0	100.0

**Source:** Field Survey

The people who are 21-30 aged respondents are 60, which is 27.3%, 31-40 aged respondents are 100, which is 45.5%, and more than 40 aged are 60, which is 27.3%.

*Table 4: Gender of the Respondents*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	26	11.8	11.8	11.8
	Male	194	88.2	88.2	100.0
	Total	220	100.0	100.0	

**Source:** Field Survey

Male respondents are 194, 88.2%, and female respondents are only 26, 11.8%.

*Table 5: Types of Respondents (Local People, Entrepreneurs and Affected People)*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	local people	2	.9	.9	.9
	affected people	92	41.8	41.8	42.7
	Entrepreneur	126	57.3	57.3	100.0
	Total	220	100.0	100.0	

**Source:** Field Survey

One hundred twenty-six respondents are entrepreneurs, 57.3%, 92 respondents are affected people, 41.8%, and the local people are only 2, which is 0.9%.

*Table 6: Qualification of the Respondents*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below SSC	39	17.7	17.7	17.7
	SSC	64	29.1	29.1	46.8
	HSC	73	33.2	33.2	80.0
	Honours	41	18.6	18.6	98.6
	Masters	3	1.4	1.4	100.0
	Total	220	100.0	100.0	

Thirty-nine respondents are below SSC, which is 17.7%, six 4respondent are SSC level which is 29.1%, 73 respondents are HSC level which is 33.2%, 41

respondents are Honours level which is 18.6%, and three respondents are Masters level which is 1.4%.

*Table 7: Types of Enterprise*

		Frequency	Percent	Valid Percent	Cumulative Percent
	Small	149	67.7	67.7	67.7
Valid	Medium	71	32.3	32.3	100.0
	Total	220	100.0	100.0	

**Source:** Field Survey

There are two types of enterprises, 149 are small, 67.7% and 71 are medium which is 32.3%.

*Table 8: How many employees have before the pandemic?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Small	0-20	104	47.3	69.8
	20-40	34	15.5	22.8
	40-60	11	5.0	7.4
	Total	149	67.7	100.0
Medium	0-50	38	17.3	53.5
	50-100	19	8.6	26.8
	100-150	14	6.4	19.7
	Total	71	32.3	100.0

**Source:** Field Survey

In the small enterprise, they hire 0-20 employees, 104 respondents responded this, which is 47.3% 20-40 employees, 34 respondents answered this, which is 15.5%, 40-60 employees, 11 respondents responded this, which is 5%. In the medium, they hire 0-50, 50-100 and 100-150 employees, with 38, 19 and 15 respondents responding, respectively.

Table 9: Expel Employee Due to Pandemic

		Frequency	Percent	Valid Percent	Cumulative Percent
Small	5-10	109	49.5	73.2	73.2
	10-15	35	15.9	23.5	96.6
	15-20	5	2.3	3.4	100.0
	Total	149	67.7	100.0	
Medium	10-20	52	23.6	73.2	73.2
	20-30	16	7.3	22.5	95.8
	30-40	3	1.4	4.2	100
	Total	71	32.3	100.0	

**Source:** Field Survey

In the small enterprise, they expel 5-10 employees, 109 respondents responded, which is 49.5%, 10-15 employees, 35 respondents responded this, 15.9%, 15-20 employees, five respondents responded this, which is 2.3%. In the Medium, they expel 10-20, 20-30, and 30-40 employees, with 52, 16 and 3 respondents' responses.

Table 10: Investment Scenario

		Frequency	Percent	Valid Percent	Cumulative Percent
Small	50 thousand-50 lakh	102	46.4	68.5	68.5
	50 lakh-1 crore	45	20.5	30.2	98.7
	1 crore-1.5 crore	2	.9	1.3	100.0
	Total	149	67.7	100.0	
Medium	50 lakh-1 crore	34	15.5	47.9	47.9
	1 crore-10 crore	29	13.2	40.8	88.7
	10 crore-20 crore	8	3.6	11.3	100.0
	Total	71	32.3	100.0	

**Source:** Field Survey

In the small enterprise they invest, 50 thousand-50 lakh were 102 respondent responses which are 46.4%, 50 lakh-1 crore were, 45 respondent response this, which is 20.5%, 1 crore-1.5 crore where two respondent response this, which is .9%. In the Medium, 34 respondents invest 50 lakh- 1 crore.

Table 11: Paid Bank Loan Before and After Pandemic

Before Pandemic		Frequency	Percent	Valid Percent	Cumulative Percent
Small	Yes	119	54.1	79.9	79.9
	No	30	13.6	20.1	100.0
	Total	149	67.7	100.0	
Medium	Yes	70	31.8	98.6	98.6
	No	1	.5	1.4	100.0
	Total	71	32.3	100.0	
After Pandemic		Frequency	Percent	Valid Percent	Cumulative Percent
Small	Yes	46	20.9	30.9	30.9
	No	103	46.8	69.1	100.0
	Total	149	67.7	100.0	
Medium	Yes	5	2.3	7.0	7.0
	No	66	30.0	93.0	100.0
	Total	71	32.3	100.0	

**Source:** Field Survey

In the small enterprise, 119 respondents responded that they paid their loans before the pandemic, 54.1%, and 30 respondents did not pay their loans before the pandemic. Still, after the pandemic, 46 respondents paid loans; others did not. In the medium, 70 respondents responses that they spent their loan before the pandemic, which is 31.8% and one respondent did not pay, and after the pandemic, only five respondents paid the loan.

Table 12: Various Components related to SME

		Frequency	Per cent	Valid Per- cent	Cumulative Percent
Economic position	Decreasing	184	83.6	83.6	100.0
GDP level hampered	Yes	207	94.1	94.1	94.1
SME Worker	Yes	191	86.8	86.8	86.8
Express opinion	Negative	206	93.6	93.6	100.0

**Source:** Field Survey

Most of the respondents, about 184 respondents, which is 94.1%, said that economic position is decreasing, about 201 respondents which is 94.1%, said that GDP level is hampered, 191 respondents are SME workers, and 206 respondents are 93.6% expressed a negative opinion.

Table 13: Hamper Economic Position

	Frequency	Per cent	Valid Percent	Cumulative Percent
Yes	5	2.3	2.3	2.3
1.14	2	.9	.9	3.2
1.29	5	2.3	2.3	5.5
1.43	16	7.3	7.3	12.7
1.57	17	7.7	7.7	20.5
1.71	31	14.1	14.1	34.5
1.86	25	11.4	11.4	45.9
No	35	15.9	15.9	61.8
2.14	25	11.4	11.4	73.2
2.29	12	5.5	5.5	78.6
2.43	8	3.6	3.6	82.3
Valid 2.57	8	3.6	3.6	85.9
2.71	2	.9	.9	86.8
2.86	2	.9	.9	87.7
3.00	1	.5	.5	88.2
3.14	4	1.8	1.8	90.0
3.29	4	1.8	1.8	91.8
3.43	3	1.4	1.4	93.2
3.57	1	.5	.5	93.6
3.71	1	.5	.5	94.1
3.86	1	.5	.5	94.5
4.00	12	5.5	5.5	100.0
Total	220	100.0	100.0	

**Source:** Field Survey

Now combining seven segments (EI<sub>1</sub>, EI<sub>2</sub>, EI<sub>3</sub>, EI<sub>4</sub>, EI<sub>5</sub>, EI<sub>6</sub>, and EI<sub>7</sub>), we conclude the respondents who examined that hampered economic position was five, which is 2.3% fully agreed. At point 2.00, where seven responses are entirely disagreeing, 35 respondents identified 15.9%. At point 3, 1 replied agreeing, two partially agreed, one disagreed, two partially disagreed, and one is in the not at all level, and one respondent identified this.5%; At point 4, where one response at partially agree, four partially disagree, and one is in the not at all level, 12 respondents identified this, which is 3.5%.



Table 14: Employee Find Impact

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	6.8	6.8
	1.33	27	12.3	19.1
	1.67	58	26.4	45.5
	No	54	24.5	70.0
	2.33	19	8.6	78.6
	2.67	10	4.5	83.2
	3.00	12	5.5	88.6
	3.33	7	3.2	91.8
	3.67	2	.9	92.7
	4.00	9	4.1	96.8
	4.33	1	.5	97.3
	4.67	1	.5	97.7
	5.00	5	2.3	100.0
	Total	220	100.0	100.0

**Source:** Field Survey

Now combining three-segment ( $AW_1, AW_2, AW_3$ ), we conclude the respondent who noticed the employee found an impact where 15 respondents, 6.8%, fully agree. At point 2.00, where three partially agree, 54 respondents identified this, which is 24.5%; At point 3, where two responses partially agree, and one is in the not at all level, 12 respondents identified this, which is 5.5%; At point 4 where all are somewhat disagreeing, nine respondents identified this which is 4.1%; At point 5 where all are not at all level 5 respondents identified this which is 2.3%.

Now combining four-segment ( $AE_1, AE_2, AE_3, AE_4$ ), we conclude the respondent who examined that Entrepreneur finds impact where two respondents, which is .9% fully agree, At point 2.00 where four partially agrees, 30 respondents identified this which is 13.6%; At point 3.00 were two responses at partially agree and one disagrees, and one is in the not at all level, nine respondents identified this which is 4.1%; At point 4.00 where all responses are partially disagreeing, eight respondents identified this which is 3.6%; At point 5.00 were four replies at not at all level, six respondents identified this which is 2%.

Table 15: Entrepreneurs find impact

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	2	.9	.9	.9
1.25	6	2.7	2.7	3.6
1.50	19	8.6	8.6	12.3
1.75	33	15.0	15.0	27.3
No	30	13.6	13.6	40.9
2.25	26	11.8	11.8	52.7
2.50	24	10.9	10.9	63.6
2.75	15	6.8	6.8	70.5
Valid 3.00	9	4.1	4.1	74.5
3.25	11	5.0	5.0	79.5
3.50	14	6.4	6.4	85.9
3.75	4	1.8	1.8	87.7
4.00	8	3.6	3.6	91.4
4.25	8	3.6	3.6	95.0
4.50	2	.9	.9	95.9
4.75	3	1.4	1.4	97.3
5.00	6	2.7	2.7	100.0
Total	220	100.0	100.0	

**Source:** Field Survey

Table 16: Reliability Statistics for Components

Components	No. of Items	Cronbach's Alpha	Decision
Hamper economic position	7	0.815	Desirable.
Employee find impact	3	0.709	Desirable.
Entrepreneur find impact	4	0.666	Acceptable

**Source:** Authors Calculation

In the first case, the data will be desirable when the alpha is seven or more. Here alpha is .815, so it is desirable. The data will be desirable in the second case when the alpha is seven or more. Here alpha is .709, so it is desirable. In the third case, the data will be acceptable when the alpha is 5 or 6. Here alpha is .666, so it is acceptable.

**Structural Equation Model**

Figure 1: Model of the economic impact of Covid-19 on SMEs

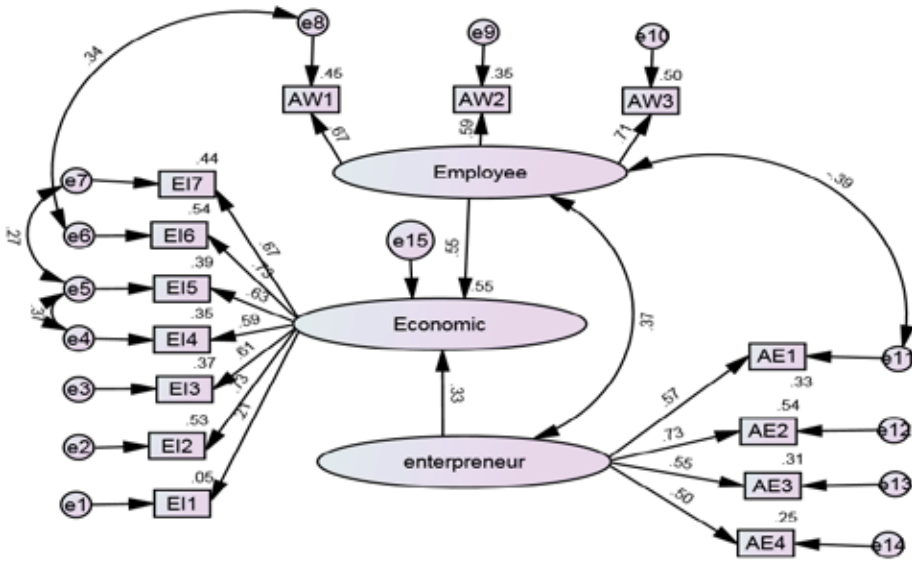


Table 17: Fit Indices for Structural Equation Model

Fit indices	Recommended value	Value Indices	Conclusion
Chi-square(CMIN)		107.903	
Df		70	
Chi square/degrees of freedom	< 3.00	1.541	Fit
GFI	> 0.90	.936	Fit
AGFI	> 0.90	.904	Fit
RMSR	≤ 0.10	.060	Fit
NFI	> 0.90	.888	Moderate
IFI	> 0.90	.957	Fit
CFI	> 0.90	.956	Fit
PNFI	≥ 0.50	.683	Fit
PGFI	≥ 0.50	.624	Fit
RMSEA	< 0.05	.050	Fit
TLI	> 0.90	.943	Fit

Source: Authors Calculation

For Absolute Model fit, the probability value is .002, which is acceptable, RMSEA is the .050, less than .08, and GFI is .936, more than .9, so we can say that the model is well fitted. For Incremental fit, AGFI is .904, CFI is .956, NFI is .888, and TLI is 943. Only NFI is close to .9, and all of these are more than

.9.so the model is good. For Parsimonious Model fit, Chi-Square/ df Minimum discrepancy is 1.541, which is less than 5.0.so it also fits the model. All of the values in the table are acceptable. Many authors also find the well-fitted model as all of these fulfil the condition as SMEs are significant contributors to economic growth. They are often the most vulnerable when they face various public crises. According to Runyan (2006), SMEs are most severely impacted in crises because of their low vigilance levels; susceptibility is higher, reliance on government and local agencies is higher, and the greater emotional and economic impact on the entrepreneurs. Numerous surveys have been conducted on the impacts and prospects of SMEs in Bangladesh. All of these surveys examined that there were almost 6 million micro, small and medium enterprises (MSMEs) which included enterprises with “more than 100 workers” employing a total of 31 million people, which is equivalent to 40% of the total population of the country of age 15 years and more (ICG and MIDAS 2003). The survey also stated that the industrial structure of SMEs consisted of elementary wholesale and retail trade & mending, that is 40%, agricultural goods production and sale, that is 22%, and service sector and manufacturing, only 15 per cent and 14 per cent cent, respectively.

*Table 18: Results of Hypothesis Testing*

Hypothesis	Path	Coefficient	SE	C.R	P value	Decision
H1	Economic<--Employee	0.551	.029	2.652	.008	Accepted
H2	Economic<--- entrepreneur	0.333	.021	2.312	.021	Accepted
H3	Employee<-->Entrepreneur	0.230	0.072	3.181	0.001	Accepted

**Source:** Authors Calculation

Here, Economic<--Employee, where the p-value is .008, significant. Economic<---entrepreneur, where the p-value is 0.021 which is significant, Employee<-->Entrepreneur, where the p-value is .002, which is substantial. From the table, we see the p-value is significant because all of these are less than 0.05, which many authors in the field have found. They also found positive results, and most importantly, extant literature suggests that entrepreneurial resistance is better for SMEs in this pandemic (Fatoki 2018). Connor and Davidson (2003) were employed to identify entrepreneurial resilience in the Covid-19 Pandemic situation. Innovative work behaviour has mainly been significant for SMEs (Omri 2015). The record also suggests that creative work behaviour can result in promising prospects for business in a pandemic situation. Structural equation modelling using Smart PLS 2.0 (Ringle, Wende and Will 2005) was used in the study, and they followed a two-stage approach according to the recommendations of (Hair et al.2017).

## 6. Conclusions and Recommendation

Our study attempts to assess the conditions of SMEs in Bangladesh in the context of the ongoing Covid-19 pandemic. This study aims to find out the most critical factors responsible for the decline of the living standard, income, and employment; it will be effective for future policymaking about the concerned economy and all other sectors of the country. We analyse our collected data by using SEM with AMOS, SPSS Statistics-20. There are two types of enterprises, 149 are small, and 71 are medium out of 220. In the small enterprise, 46.8% do not pay their loans after a pandemic, and 30% of people cannot repay their loans after the pandemic. After the pandemic, the economic position was greatly hampered. The covid-19 pandemic greatly affected the worker and the SMEs ownership. We construct a model that shows that entrepreneurs and workers are badly hampered because of the Covid-19 pandemic. The economic position is decreasing by about 83.6%, 94.1% said that GDP level is significantly hindered, 93.6% express negative opinion. The financial sector hampers the educational industry, increases price level, decreases the production of the group processing sector, and hampers the electrical and leather industry and RMG and handicraft sector. Workers are hampered by reduced income levels, decreased living standards, and consumable goods in the SME sector. This pandemic also hindered the entrepreneur. We construct an SEM model that is well fitted. The entire Cronbach's alpha is greater than .6, which is acceptable. From the above model and table, we find that all values are accepted in the fit indices where most respondents said there is a negative impact. We find that the p-value is significant in the hypothesis testing, and all other values fit the model. The economic position is also hindered when workers or SME owners are hampered.

To recover our economic position, we need to take various policies that are explained below:

***Use of modern technology:*** Indigenous technology is a crucial characteristic of most SMEs, and they are also involved in developing their existing production techniques and processes. Enterprises are not competitive if there is less use of modern technology and innovation does not occur in an internal sector. By using modern technology, we can reduce this impact.

***Setting Help Desks in Banks and Business:*** To spread the outreach of SME development, especially in respect of women entrepreneurs and need to make a help desk with modern computers and better internet opportunities that must be set up in every branch of a bank. If they are complete skilfully about internet facilities, people efficiently operate their business by staying home.

***Development of SME Infrastructure:*** Currently, the most critical constraint that obstructs the growth of SMEs is due to lack of infrastructure facilities, face limitations when access to good market opportunities, technology, experience, and complete information and communication about business. Providing applicable infrastructure for SME improvement should be very helpful in overcoming this problem.

***Increasing training Facilities for SME workers and Entrepreneurs about online business:*** Bangladeshi workers are experts at learning and copying production skills. Various training facilities for SME workers and improvement of entrepreneurial knowledge are not sufficient in our country. Various programs must establish training institutes regarding entrepreneurship enhancement and help them overcome their losses because of the Covid-19 situation.

***Increasing the Role of NGO:*** Various NGOs may take essential steps to ensure continuous economic support to the expected SMEs in Bangladesh. The government needs to carry out multiple policies to cheer women's entrepreneurship.

***A suitable implementation of SME policy:*** The government needs to reformulate the policy and rules of SMEs to accept SMEs as essential players in growth acceleration and decrease poverty. The government takes many techniques and provides various opportunities and incentives for the improvement and development of SMEs to end this problem.

***Increasing online business facilities:*** People can buy any goods without outgoing at home by increasing online business facilities. They maintain social distance and help control the pandemic situation by doing this. They can earn more revenue after doing this.

The action of the government and deserving strategies need to be taken to promote economic growth in the country. The SMEs must construct potential financial control and management skills for their progress and survival. However, the government needs to develop better tricks and rules to improve SMEs' growth in this crisis.

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## A Study on Borrower Behaviour Amid Covid-19 Pandemic In Bangladesh

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### Abstract

*Before the COVID-19 pandemic, Bangladesh faced severe economic problems, including indiscipline in the banking sector. The banking sector is the lifeblood of an economy. There is no alternative but a healthy banking sector to establish a smooth and robust economy. To ensure a healthy banking sector, it is essential to develop strong discipline. Given that analysis of borrower's behaviour is a must for management of the credit operation of a bank. In this regard, so much research has been undertaken. But in a pandemic situation, that behaviour may be changed. This study attempts to identify the borrowers' behaviour amid the COVID-19 pandemic in Bangladesh. Both qualitative and quantitative approaches were used to attain the purpose of this study. This study revealed significant changes in borrower behaviour amid the Covid-19 situation. The behaviour of the borrowers must be noted for future policy-making and management of credit operation of commercial banks of Bangladesh.*

**Keywords** COVID-19 · Borrower · Borrower behaviour · Bangladesh

### 1. Introduction

The COVID-19 pandemic created an enormous panic throughout the world in 2020. The world could not realize the devastating effect of that unknown virus. As of 22 October, 2021 world sees 49,50,120 deaths and 243,585,418 affected people, while Bangladesh has recorded total death of 27,801 people and affected 15,66,907 people. Bangladesh diagnosed its first COVID-19 patient in March 2020. The Bangladesh government has quickly taken a vigorous action plan to prevent the pandemic. As part of the plan, the government has declared a country-wide lockdown from 26 March 2020 to 30 May 2020. Economic activities across sectors squeezed, causing Bangladesh's GDP growth to decline to 5.24 per cent in

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FY 20 from 8.15 per cent in FY19. To prevent further economic fallout and restore the economy, the government declared a comprehensive stimulus package worth more than BDT 1.24 trillion, which is around 4.44 per cent of GDP.

The main objective of the stimulus package is to support the faster recovery of economic growth. The covid-19 pandemic creates financial risks within the banking sector of Bangladesh. The banking sector of Bangladesh was already suffering miserably from non-performing loans (NPLs), and it will be increased for this outbreak in future. The banking sector is challenged to recover loans in the Covid affected economy. There is a clear difference between pre-Covid borrower behaviour and post-Covid borrower behaviour. To face the situation, the government and Bangladesh Bank have undertaken different steps during this situation. It is essential to reveal the effect of those steps, especially in recovering the loan process and in borrowers' behaviour. Bangladesh Bank has allowed all borrowers that the account will not be classified if 25% of due for payable liabilities is adjusted within 31 December 2021. So the actual NPL position in the Covid situation cannot be ascertained, and the inherent weakness in the banking sector cannot be retrieved.

## **2. Literature Review**

Covid-19 has created a crisis in the health system; it has disrupted the usual economic and social behaviour. Habib (2020) stated that Bangladeshi banks face vast uncertainties, particularly about refunds of credits by their customers when their commercial activities are in disarray. Babu (2020) says that non-performing loans that move out from banks but don't return into their records are accused of dropping monetary fitness. Paul (2020) stated that the banking sector faces liquidity and loan recovery problems. Ikram et al. (2016) have identified some behavioural factors of NPLs such as type of collateral, the quantity of collateral, the credit assessment, lack of proper monitoring, poor credit culture, a grace period of credit repayment, creditor's behaviour, repayment flexibility, credit policies, and tenure of loans.

## **3. Objective of the Study**

The objectives of the study are as follows:

- To identify behavioural change of borrowers in availing loans from commercial banks of Bangladesh in the COVID-19 situation.
- To identify the influence of the government stimulus package on repayment behaviour of borrowers who availed of loans in the pre-COVID period from commercial banks of Bangladesh.
- To provide some suggestions for policy implications in future.

#### 4. Methodology of the Study

This study is mainly descriptive. It attempts to discover any changes in borrowers' behaviour during the COVID-19 period. Qualitative research has been accustomed to attaining the goals of the study. For collecting data focus group method and observation method were used. A Focus group discussion was conducted on ten senior bankers of 5 commercial banks in Bangladesh. Some primary data were collected from those five commercial banks. Secondary data had been collected from the published and unpublished books and journals, newspapers, periodicals and circulars of Bangladesh Bank. The study period was from 1 April 2020 to 30 September 2021.

**Borrower:** A borrower is an individual or entity using money, assets, or services on credit. The concept most commonly applies to the lending of funds, where a borrower applies for a loan, and there is a credit evaluation by the lender. The lender may also require collateral securities from the borrower, which the lender can access if the loan is not repaid on time. The borrower agrees to specific repayment terms and conditions as part of the loan agreement.

**Borrower Behaviour:** Borrower behaviour involves the using credit and refunding related activities of people engaging in the trading or personal consumption process. Borrower behaviour may vary in the pre-sanction stage and post-sanction stages. This study considered borrower behaviour during loans' post-sanction phase, especially during the Covid-19 period.

**COVID-19:** On 31 December 2019, WHO was informed of cases of pneumonia of unknown cause in Wuhan City, China. Chinese authorities identified a novel coronavirus as the cause on 7 January 2020. Coronavirus disease 2019 (COVID-19) is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV 2). The disease has since spread worldwide, leading to an ongoing pandemic. As of 22 October, 2021 world sees 49,50,120 deaths and 243,585,418 affected people, while Bangladesh has recorded total death of 27,801 people and affected 15,66,907 people. Bangladesh diagnosed its first COVID-19 patient in March 2020.

#### General Obligation of a Borrower

1. Use the money for the purpose declared in the credit agreement; Make all payments promptly, on or before the due date.
2. Declare the actual business position as and when the lender asks for it.
3. Act as custodian of primary and collateral security encumbered against the borrowed money.
4. Maintaining good business accounts related to the credit taken and disclosing the facts and figures to the lender periodically or as and when the lender asks for.

## **5. Measures undertaken in combatting COVID-19**

The following measures have been undertaken in Bangladesh to minimize adverse economic shocks from COVID-19 and implement the government's fiscal stimulus packages.

### **1. Cash Reserve Ratio (CRR)**

- Fifty basis points reduced the CRR to 5.0 per cent on a bi-weekly average and 4.5 per cent daily, effective from 1 April 2020.
- One hundred basis points reduced CRR to 4.0 per cent on a bi-weekly average and 3.5 per cent daily, effective from 15 April 2020.
- Two hundred basis points reduced CRR for the offshore banking operations to 2.0 per cent on a bi-weekly average basis and 1.5 per cent daily, effective from 1 July 2020.
- One hundred basis points also reduced CRR for the Non-bank Financial Institutions (NBFIs) to 1.5 per cent on a bi-weekly average basis and 1.0 per cent daily with effect from 1 June 2020.

### **2. Repo Rate**

- Twenty-five basis points reduced the repo rate to 5.75 per cent, effective from 24 March 2020.
- It was reduced further by 50 basis points to 5.25 per cent, effective 12 April 2020.
- Again, the rate was reduced by 50 basis points to 4.75 per cent, effective from 30 July 2020.

### **3. Term Repo Facility**

- A 360-day repo facility was introduced to support the banks' longer-term financing needs and NBFIs from 13 May 2020.

### **4. Reverse Repo Rate**

- The reverse repo rate was reduced by 75 basis points to 4.00 per cent, effective from 30 July 2020.

### **5. Bank Rate**

The bank rate was reduced by 100 basis points to 4.00 per cent from 29 July 2020.

### **6. Advance to Deposit Ratio (ADR) and Investment to Deposit Ratio (IDR)**

- ADR for conventional banks was extended by two percentage points to 87 per cent, effective from 15 April 2020.
- The IDR for shariah-compliant Islamic banks was extended by two percentage points to 92 per cent from 15 April 2020.

## **7. Loan Classification**

- The loan classification status of banks and NBFIs cannot be downgraded until 30 June 2020, from 1 January 2020. However, any classification status improvements can be made per existing rules and regulations.
- The loan classification deferral was initially extended to 30 September 2020 and until 31 December 2020. It was further extended up to 31 December 2021, subject to an adjustment of 25% of due for payment.

## **8. Loan Rescheduling and One-Time Exit**

- Banks were permitted to recognize 50 per cent of the required provision against their specially rescheduled loans as General Provision (will be eligible to get capital status) with effect from 19 March 2020.

## **9. Long Term Financing Facility (LTFF)**

- BB allowed deferral of instalments facility for the LTFF borrowers during January-December 2020.

## **10. Term Loans and Leases for FIs**

- BB Extended the maturity of the term loans and leases of Financial Institutions to 50 per cent of the remaining time to maturity from 9 August 2020.

## **11. Revolving Loan Renewal Facilities for FIs**

- BB Relaxed the terms and conditions of revolving loan renewal to help the pandemic-affected clients of FIs.

## **12. Agricultural Credit**

- BB instructed banks to provide agricultural loans at a 4 per cent concessional interest rate from the bank's funds. The Bank can claim the rest of the 5 per cent interest from the BB subsidy with effect from 27 April 2020.

## **13. Transfer of Interest/Profit to non-Interest-Bearing Blocked Account**

- BB instructed that all interests/profits applied/to be applied on bank loans/ investments from 1 April 2020 to 31 May 2020 have to be transferred to a non-interest bearing blocked account.
- The directive will apply to loan/investment outstanding of borrowers as of 31 March 2020.
- Per the directive, interest/profit waivers will be provided to borrowers at varied rates (depending on loan outstanding) against which government will provide the subsidy.

#### **14. Late Payment and Interest Calculation against Credit Card Bills**

- Bangladesh Bank issued a directive on 4 April 2020 stating that banks will not charge any late payment fee/charge/penal interest/additional revenue or any other fee/charge due to delayed credit card bill payment from 15 March 2020 to 31 May 2020.

#### **15. Export-oriented Industries**

- A stimulus fund amounting to BDT 50 billion was formed to pay monthly wages of dynamic export-oriented industries with effect from 2 April 2020.
- Scheduled banks can avail of the interest-free fund from BB and take a one-time service charge of 2 per cent while lending the same to active industries and exporting at least 80 per cent of their total production.
- The fund can only be utilized to pay workers' wages for up to three months, and the loan tenure will be for two years, including six months grace period.

#### **16. Working Capital for Industrial and Service Sector**

- The Honourable Prime Minister announced a stimulus package worth DBT 300 billion for affected companies from the industrial and service sector on 5 April 2020.
- To lessen the interest burden at the client level, the government will subsidize 4.50 per cent of interest/profit against the current prevailing rate of 9.00 per cent.
- Additional BDT 30 billion was added to this package to pay workers' wages for July 2020.
- Working capital facilities for industries and service sector companies were enhanced further to BDT 400 billion from the previous BDT 330 billion on 29 October 2020.

#### **17. Special Working Capital Facility for CMSMEs Sector**

- To revive the CMSMEs sector, the Honourable Prime Minister announced a special incentive package worth BDT 200 billion for the entrepreneurs of Cottage, Micro, Small, and Medium Enterprise badly affected by the COVID-19 pandemic on 5 April 2020.
- Entrepreneurs shall avail of the working capital loan/investment facility from the banks and financial institutions at a 9 per cent interest rate under the package, out of which 5.0 per cent interest shall be subsidized. This facility was effective from 13 April 2020 to 31 October 2020. Still, it was extended to 31 March 2021 to allow banks and NBFIs sufficient time to disburse the much-needed working capital for sustaining the CMSMEs sector.

## 18. Refinance Schemes

- BB established a refinancing fund of BDT 50 billion to provide a pre-shipment credit facility to export-oriented industries from 13 April 2020. The validity period of this fund is three years.
- A refinance BB formed scheme of BDT 150 billion from its own source for providing working capital loan/investment facilities in large industrial and service sectors with effect from 23 April 2020. The validity period of this fund is three years.
- A refinance scheme of BDT 50 billion was formed to provide working capital in the agriculture sector (floriculture, pomiculture, pisciculture, poultry, dairy and livestock sector) with effect from 13 April 2020. Banks have to disburse the allocated amount within 31 March 2021.
- A refinance scheme of BDT 30 billion titled “Refinance Scheme for Professionals, Farmers and Marginal/Small Businessman of low Income, 2020” was formed by BB. The scheme was made effective from 20 April 2020 for three years.
- BB formed a revolving refinance scheme of BDT 100 billion from its own source for the CMSME sector to provide the working capital facility to the entrepreneurs with effect from 26 April 2020. The validity period of this fund is three years.

## 19. Export

- The realization of export proceeds was extended up to 180 days (210 days for textile goods) from the prescribed period of 120 days from the date of shipments.
- For bonafide grounds, repatriation of export bills was allowed at a discounted price of up to 10 per cent of FOB value.
- The tenure of submission of the bill of entry was extended up to 180 days from the prescribed period of 120 days from the date of payments.
- The tenure of realization of export proceeds was also enhanced up to 90 days, as the additional time from the statutory period of four months. The facilities for the extended period shall be applicable only for exports of readymade garments and textile goods. The above facilities are functional till 31 March 2021.
- Export was allowed under open account credit terms with a foreign payment guarantee, including early payment facilities on a non-recourse basis.

## 20. Import

- Usance period of input imports by industrial importers under supplier’s/buyer’s credit was extended up to 360 days from a permissible period of 180 days, with the same facilities for input imports under back-to-back LCs, agricultural implements, chemical fertilizers, and fuel imported commercially.
- Back to back/usance, LCs were permitted to open with a realization clause.



- Payment against inland LCs in foreign currency can be made through Nostro accounts of ADs instead of BB clearing accounts.
- Authorized Dealers (ADs) are allowed to affect, without repayment guarantee or approval from BB, advance payment up to USD 500,000.00 or equivalent to other foreign currency for importing coronavirus-related life-saving drugs, medical kits/equipment, and other essential medical items.
- The usance period for import of life-saving drugs under supplier's/buyer's credit was extended to 180 days from the permissible period of 90 days. The Above facilities are applicable till 31 March 2021.
- Quarterly repayments have been waived against imports on usance terms for periods exceeding 180 days.

## 21. Export Development Fund (EDF)

- BB will charge interest rates on EDF loans to ADs at 1.00 per cent, while ADs will charge interest to manufacturer-exporters at 2.00 per cent from 1 April 2020.
- Again interest rate on EDF loans was reduced to 1.75 per cent chargeable to eligible borrowers, and ADs shall make interest payments to Bangladesh Bank at 0.75 per cent for disbursements until 31 March 2021.
- The size of the export development fund (EDF) was enhanced to USD 5.0 billion.
- The EDF limit was enhanced to USD 30 million from USD 25 million, effective for disbursements until 31 December 2020, for member mills of BGMEA and BTMA.
- The payment against EDF loans was extended to 180 days from 90 days (applicable until 31 March 2021).
- Refinancing from EDF up to 180 days for back-to-back LCs opened earlier for input imports will be applicable till 31 March 2021.

<b>Covid-19 Funds Announced By The Government</b>	
Name of the Packages	In Crore Taka
Special fund for salary support to export-oriented manufacturing industry workers	5,000.00
Providing working capital facilities for the affected large industries and service sector organizations	40,000.00
Providing working capital facilities to small (including cottage industries) and medium enterprises	20,000.00
To increase the facilities of the Export Development Fund introduced by the Bangladesh Bank	12,750.00
Pre-shipment Credit Refinance scheme	5,000.00
Agricultural Refinance Scheme	12,750.00
Refinancing scheme for low-income farmers and small traders	3,000.00
Creation of jobs through loans (through Village Saving Bank, Employment Bank, Expatriates' Welfare Bank and Palli Karma Sahayak Foundation)	3,200.00
Government subsidy for interest waiver of deferred bank loans for the month of April-May/2020	2,000.00
Credit guarantee scheme for small and medium enterprises sector	2,000.00
<b>Total liquidity support</b>	<b>105,700.00</b>

## 6. Analysis and Discussion

As of November 2020, the Ministry of Finance's officially published report showed that 100 per cent of the funds allocated under this package, or USD595 million, was completely disbursed to 1992 export-oriented business enterprises through 47 commercial banks. This money was used to pay the wages and salaries for April 2020 and May 2020 of 3.5 million people working in export-oriented industries of the country.

As of 31 October 2020, around 71 per cent of the total funds allocated under the Package of working capital stimulus package for affected large industries and services were disbursed to 2,549 large industries and service sector business enterprises through 51 commercial banks. Out of the total USD 4762 million, an amount of USD 654 million was earmarked for the wages and salaries of 1.5 million persons working in large industries and services sectors for June 2020 and July 2020. Due to the liquidity support offered by the government under this package, 2549 large industries and service sector business enterprises could keep their businesses afloat during the pandemic. This liquidity support package protected 1.5 million employees and workers working in large industries and service sector enterprises. It prevented their families from falling into financial hardship during the pandemic.

During the Covid-19 period, demand for loans and advances was reduced remarkably to demand loans under stimulus packages, which is an unusual behaviour of the borrower. It revealed from Bangladesh Bank data that excess liquidity in the banking sector has nearly doubled from Tk.1.03 trillion in January 2020 to Tk.2.05 trillion in December 2020.

During the Covid-19 period, the Government has made it mandatory to reduce the lending rate below 9% for all commercial banks of Bangladesh loans from 1 April 2020. It was presumed that lowering the lending rate would greatly benefit the investors, and consequently, private investment would go up remarkably. Moreover, the price of commodities will fall, resulting in inflation. But the borrowers had refrained from the price-cutting on their produce. Before implementing a 9% lending rate from 1 April 2020, the inflation rate was 5.48% in 2019, while it was 5.65% in 2020. After imposing instruction of a lending cap, the inflation rate has increased rather than decreased.

The stimulus package for payment of salary and wages of RMG workers for April and May 2020 was announced only for those RMG units that cannot manage monthly wages for those months. Our study reveals from Table:1 that 20% of RMG units under research were capable enough to handle the salary of those months from their own sources. But 100% of RMG units under investigation have availed of stimulus packages. They helped the facilities by mis-declaration.

Table:2 reveals that 100% of pre-Covid borrowers under review did not pay their loan instalment during the Covid period. However, they were capable of adjusting their instalment against loans availed in the pre-Covid period. They did not pay their liability because the government may allow a loan waiver facility in the Covid situation.

In Bangladesh, the borrowers' general characteristic is that they always fail to ensure the end-use of money. In other words, loans become non-performing because of the diversion of funds. Our study in Table 3 found that the end-use of funds has been ensured in 100% of cases where the loans have been disbursed to the beneficiaries (workers) through bank accounts or MFS accounts. In contrast, in the case of other packages (where loans were not disbursed through a bank account or MFS account), only in 20% of cases the end use of money was ensured.

From the outset of the government's pronouncement of the Covid-19 stimulus packages, banks have been willing to lend to the large borrowers but were less interested in lending to small borrowers.

When the interest subsidy or lending rate is allowed below the FDR rate level, many borrowers avail themselves of the credit facilities to place the fund in other institutions in the form of FDR to earn interest. In that case, genuine borrowers become deprived of a shortage of loanable funds.

*Table 1: Behavior of RMG borrowers in availing stimulus facility*

No. of RMG under review	No. of RMG capable of managing salary from own sources	No. of RMG not qualified to handle salary from own sources	No. of RMG, which availed loan for a salary under stimulus packages	No. of RMG, which has terminated workers in the Covid period
50	10 (20%)	40 (80%)	50	47 (94%)

*Table 2: Behavior in repayment of loans availed in the pre-Covid period*

No. of borrowers who got loans in the pre-Covid period among respondents	No. of borrowers who repaid loans (availed in the pre-Covid period) which was due for payment in the Covid period	No. of borrowers who were defaulters for non-payment of loans (availed in the pre-Covid period) was scheduled for payment in the Covid period.
18	nil	18 (100%)

*Table 3: Behavior of borrowers in the diversion of fund (loan)*

No. of respondent borrowers who availed of loans under the stimulus package	No. of respondent borrowers who helped loans under stimulus package against salary of April and May '20.		No. of respondent borrowers who availed loans under stimulus package other than salary package.	
	No.	No. of cases in which end-use of money was ensured	No.	No. of cases in which end-use of money was ensured
60	50	50 (100%)	10	2 (20%)

*Table 4: Segregation of loans disbursed to the respondents (Tk. in crore)*

Total loans disbursed among the SME and non-SME borrowers	Total loans disbursed among the SME borrowers	Total loans disbursed among the non-SME borrowers
256	14 (5.46%)	242 (94.54%)

## 7. Findings

1. The stimulus package of Tk.5000 crore allocated for wages of RMG workers was announced for those RMG units that could not manage salaries for three months. But all the RMG units under research have availed of the facilities, though 20% were found competent enough to handle their wages and salary.
2. Most borrowers have availed of working capital loans under the stimulus package to adjust their existing loan, which charges a higher interest rate.
3. The stimulus package was offered to RMG units with the condition not to terminate workers. But in almost all RMG units, under research workers have been terminated to some extent.
4. One of the main goals of reducing the lending rate was to arrest the inflation rate. But the result was experienced as frustrating. Before implementing a 9% lending rate from 1 April 2020, the inflation rate was 5.48% in 2019, while it was 5.65% in 2020.
5. Those who were regular in payment of loan instalment, upon issuance of Bangladesh Bank circular of deferral facility in classification rule, all borrowers under research were refrained from paying instalment or adjustment of loan.
6. As the government declared the loan facility a stimulus package, most borrowers thought the loan would need not be repaid.
7. The SME borrowers are good at repayment than large borrowers. Whereas only 16.66% of borrowers under review availed of SME loans.
8. 100% utilization of loan in genuine purpose in case of a stimulus package of salary and wages for RMG workers was ensured, disbursed through a bank account or MFS account.
9. The borrowers availed no new credit facility under review except for helping the credit facilities under the stimulus package.
10. The non-SME borrowers availed about 95% of the government subsidy under review. At the same time, SME borrowers were affected much more than non-SME borrowers. However, the SME borrowers are not well conversant with the facilities the government allows. In most cases, they could not avail the special facilities declared by the government.

## 8. Conclusion and Recommendations

To combat the Covid-driven economic crisis in Bangladesh, the banking sector plays a significant role, especially in implementing Covid-19 related stimulus

packages announced by the government. Though the banking sector has faced various problems since the pre-Covid period, this task is an additional challenge, as most of the stimulus is in the form of liquidity support through the commercial banks.

This study has identified some unique characteristics in the behaviour of borrowers of Bangladesh amid the Covid-19 pandemic in Bangladesh. We think these findings will help the policymaker, Bankers, and different institutions implement any policy in the future.

## **9. Recommendations**

1. Disburse wages and salaries of workers under working capital loans should be made through the bank account of the respective beneficiaries.
2. The rate of interest subsidy on lending should not be fixed below the rate of deposit (FDR) rate.
3. Interest subsidies on loans should not be allowed in general consideration. There is a scope of misuse of the facility
4. Good borrowers also use the opportunity of non-payment of their loan under the deferral facility in the classification rule set by Bangladesh Bank. Alternatively, regular repayment of the loan in the Covid-19 period may only allow an interest waiver on the repaid amount.
5. It should be mandatory to allow loan facilities to SMEs as much as possible but not less than the allocated amount.

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## State of Caregivers, Experimentation and Preparing for the Next One

Rezaul Hoque\*

### Abstract

*Bangladesh witnessed many pandemics. But COVID-19 touched millions of people and exposed vulnerability in our health system. It opened our eyes to where to mobilise resources to fight the next looming disaster. First, this article tries to discuss some uncomfortable truths the pandemic exposed. Then it concentrates on how COVID-19 undermines the idea of the interconnected global community. It also highlights the importance of a vaccine for the poor and financing the vaccination programme. Then it probes what influences churning out doctors through building a model, which helps to better comprehend human development in the health sector in the post-COVID world. Finally, it suggests where to spend government-allocated funds for research in the wake of COVID-19.*

**Keywords** *Health · Human development · National government expenditures*

**JEL Classification** H51 · I150

### 1. Introduction

Very few of us are prepared for the havoc caused by COVID-19. What COVID did, and is still doing, is only comparable to war: it crippled the economy, stopped the rhythm of vernacular activities and devastated individual lives. None would ever think such a disaster would strike the globalised countries and leave them helpless and isolated. COVID brought to the surface the vulnerabilities of the health system in poor and rich countries.

### 2. COVID Management in Bangladesh

COVID -19 management in Bangladesh turned out to be a failure. It drew the ire of people following the controversy, corruption, two-minded decisions and inability to take firm steps when it was needed most.

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It is always challenging to monitor social distancing in a densely populated country like Bangladesh. But regarding the simple screening of the disease, Bangladesh lagged behind many developing countries. It did not screen at a larger scale. More test means more detection of COVID patients. There had been 362043 confirmed cases of COVID-19 till September 29, 2020. The detection rate was 2125 per million. The number of tests and detection rates in a country with 160 million people should not be the reason for complacency. Testing centres were less than fifty in September 2020. Bangladesh also lacked adequate staff and equipment to carry out tests on a broader scale (Hoque,2020a).

The worst came in July 2021. July 1 recorded the highest number of death,143, caused by COVID-19-related complications (“Shob Record Chhariye”,2021). The detection rate rose 32% in the cruellest month (“Deshe Shonakto Dine”,2021). By that time, confirmed COVID-19 cases crossed 900,000 marks; the last 100,000 were detected in just 29 days (“Akranto Not Lakh”,2021).

In addition, misgovernance in the health sector left a blot on the government’s reputation. Fake COVID-19 tests in Bangladesh made headlines on world media. The vital overseas employment market sustained consequences as many countries were reluctant to accept fake COVID-19 certificates furnished by Bangladeshi labs. A hospital owner even landed in jail for running such fraudulent activities.

A simple sequence like collection-test-report was not corruption-free and revealed the health sector’s ugly wound, ridiculing the government’s achievements. Inadequate ICUs and beds, poor service, insufficient caregivers, low number of specialised hospitals, and inability to arrange rapid test and vaccination programs are not compatible with middle-income countries.

Bangladesh was one of the few countries where a private hospital-based researcher first conceived and developed the rapid test kit for COVID-19. Unfortunately, loggerhead with the government made its distribution in the local market untenable. Later other countries introduced the rapid antigen and antibody test kits.

A Bangladeshi research lab agreed with a Chinese company to carry out a phase-III trial of a Chinese vaccine. The lab even arranged 4500 volunteers in exchange for a fee and 100000 ampules of the vaccine. Authorities put on hold the agreement. Meanwhile, the government also nodded to a private-to-private deal with an Indian pharmaceutical company that will mass-produce vaccines developed by the Jenner Institute (Hoque,2020a).

Later in a bizarre event, the Chinese company claimed it was running out of funds and requested the Bangladesh government to cofinance its Bangladeshi phase-III trial here. This latest decision caused a furore among specific quarter who called into question its willingness to carry through the trial.

Many high-profile politicians and bureaucrats fell victims to the prevailing anarchy in the health sector during the lockdown. In normal times, they go abroad for expensive medical treatments. Propagation of coronavirus shut doors of those

countries for our VIPs, making them experience first-hand medical services born out of their ideas and policies.

The losses were so heavy that the government could not remain calm to the cry of trying the criminals. Small fries like a Department of Health Education driver and a retired director were charged and handed over to Anti Corruption Commission to assuage the angry mob. Meanwhile, the smarter ones perched on, the higher echelon of the organogram may be seeking loopholes to remain unscathed. The sorry state of our COVID management does not give us a feeling of grandeur of a nation emerging out of its structural problems prevailing in society and bureaucracy.

### **3. Globalisation: The Unlikely Victim**

Pandemic also put to the test the spirit of Globalization. While richer countries stockpiled vaccines, poorer ones pleaded to make some concessions on the intellectual rights of the vaccines. On the other hand, many African countries refused to use vaccines donated by other countries as America stopped shipping vital ingredients to India to manufacture vaccines citing a law that requires that domestic urgency reign over export, BJP-led government in India was criticised at home and in the neighbourhood for failing to deliver vaccines to the states and neighbouring countries in time (Sirur,2021). Even the CEO of Serum Institute, the company responsible for manufacturing and distributing the AstraZeneca vaccine in this part of the world, fled to the UK and was invited to set up a plant there. Bangladesh, a country with public facilities to manufacture vaccines before the 80s, shut down general production facilities during the liberalisation phase. Bangladesh's frantic search for a vaccine did not get serious attention. Many citizens await a second dose of the vaccine at home. When the vaccine was made available: vaccine nationalisation started to show its ugly colour as the multilateral donor agencies started lending to poorer countries to begin mass vaccination. These most exempted vaccines do not have WHO approval. Russian Sputnik fell victim to such a policy. Poorer countries like Bangladesh and the Philippines opted for costly Chinese vaccines. While Middle Eastern countries like Saudi Arabia and Kuwait made it clear foreign workers must have the western vaccine, causing further woes to Corona-battered poor workers (Hoque,2021a).

### **4. A Vaccine for the Poor**

The vaccination program stopped after the US had stopped sending RNA messenger to India (Sirur,2021). Bangladesh signed an agreement with the Serum Institute of India to deliver 30 million ampules of the AstraZeneca vaccine. It only received 7 million doses before the US ban on ingredient export came into effect. Following the debacle, the government entered negotiations with China, Russia and USA for the vaccine. Sinopharm's vaccine purchase was confirmed. In addition, the US sent 2.5 million doses of the Moderna vaccine. Earlier Bangladesh had taken delivery

of 2 million doses of Pfizer vaccine from GAVI. These are signs of goodwill, sent in small batches. But Bangladesh needs a bulk amount of vaccines.

Some countries in the Middle East, where many Bangladeshis work, made it clear they would not allow a migrant worker with a jab of the non-Western vaccine. So many Bangladeshis went through costly quarantine procedures despite having Sinopharm's vaccine. The government decided to give them the Pfizer vaccine.

Commitment to finance vaccination programs is plenty. But it is unclear how many doses one individual requires as a variant after variant does their damage. For poorer countries, it is not possible to purchase additional booster shot that costs more than \$ 10. Local production could be a solution as the cost will be reduced significantly. Despite repeated pleas to call the vaccine a global public good and to relax the TRIPS laws, no progress has been made (Hoque, 2021b).

This crisis should be seen as an opportunity to increase the capability and strength of our pharmaceutical companies instead of clipping their wings. There is no vaccine for the "poor". Let us mobilise efforts to develop a vaccine for the poor. It is a pity that a country that led from the front in the fight against cholera by devising oral saline has not yet come forward with a vaccine for all. It is naïve to assume that the world will develop a vaccine for the poor amid this strong wind of vaccine nationalism.

Under the banner of "Extended Program for Immunisation", which aims to vaccinate children against acute diseases like polio, diphtheria, Hepatitis etc., Bangladesh has gained the experience of conducting such a large-scale vaccination program. So this scale of vaccination program will not pose a considerable challenge to authority.

There will be no herd immunity unless most of the population gets vaccinated. At the same time, there will be no normalcy unless the government is prepared for the most aggressive and nefarious variants of the COVID-19. Very few people and government could afford a vaccine cost between \$15 and \$10. So there is no option but to develop a vaccine that will be afforded by all (Hoque,2021c).

## **5. Culture of Experimentation and State of Caregivers**

Abdul Guffar Chowdhury, veteran journalist and lyricist of language movement anthem, in his memoir "Dhire Bohe Buriganga (Gently Flows the Buriganga)", mentioned a class of Kabiraj" or traditional healers (Chowdhury, 2000). Before the tumultuous years of partition in the late 40s, Savar, the countryside on the outskirts of Dhaka, once housed these "Kabiraj" whose herbal medicines earned them a reputation across India. These vibrant, enterprising classes of professionals experimented with local herbs and made traditional medicines. The violent partition severely weakened the traditional medical practices.

After Pakistan came into being, Kundeshwari, Sadhana, Hamdard, AP did remarkably well, but a turbulent time of liberation war broke that ecosystem. The glorious days of herbal medicine never returned. Research and experimentation

not only in herbal medicine but in the health sector, in general, are conspicuously absent.

## 6. Methodological Issues

Coronavirus unveiled that many of our government health facilities do not have enough ICUs and specialised beds in the ICU across the country. This pandemic may be over in future, but it proved how vulnerable and less equipped our health system is. We spend more on APC, Tanks and defence facilities to make them NBC (Nuclear, Biological and Chemical) compliant. The time has come to replicate the process in the health sector as the threat of another pandemic or chemical or incendiary disaster looms. We need to build NBC-compliant ICUs, doctor's chambers, and patient's wards across the health facilities of Bangladesh.

Most importantly, we have to train and churn out health providers. I tried to build a model with data available in Bangladesh Economic Review 2019, Henley Nationality Index and Odhikar to see what influences produce doctors in Bangladesh (Ministry of Finance,2019) (Odhikar,2021). The period chosen was 2006-2017. I decided on Leamer's extreme bound analysis (EBA) approach to construct the perfect model. I picked up the number of registered doctors (Doc), number of beds in government hospitals and dispensaries (Bed), number of medical colleges (Med), number of dental colleges (Den), ADP spending on health, population and family welfare (ADP) and victims of political violence(Pol). The idea was that we needed more doctors with increased hospital beds. Several Medical colleges influence the churning out of doctors. So does the number of dental colleges. Increasing health expenditure could also play a role in delivering health professionals. I was eager to see whether governance could shape churning out doctors. A lagged variable was chosen in this regard as political turbulence this year could delay the graduation of doctors in future. However, I treated this variable as a doubtful one and considered Bed and Med as free.

First, I regressed Doc on Bed. Then I regressed Doc on Bed and Med. After that, I regressed Doc on Bed, Med and Den. Later I regressed Doc on Bed, Med, Den and ADP. Then Doc on Bed, Med, Den, ADP and Pol (1-period lag). Subsequent stages of regression increased both the  $R^2$  and Adj  $R^2$ . We have five coefficient estimates for Bed, 4 for Med, three estimates for Den and 2 for ADP. The coefficient of Bed oscillated between 0.13 and 0.377. That of Med varied between -0.186 and 4.4. The coefficient of Den ranged between -0.2 and 43.56. The coefficient of ADP moved between 10.9 and 11.38. I put my trust in Bed, Med and ADP as the inclusion of other variables did not produce fragile estimates of their coefficients. I also noticed that the inclusion of the Pol (lagged) variable yielded the wrong sign for the Med variable, contrary to the conviction that increasing medical colleges produce more doctors. So I went for other variables to measure the governance. I went for the Kälin-Kocherov Quality of Nationality Index (QNI) (Henley,2021). QNI ranks qualities of nationalities. Each nationality receives an aggregate score

based on economic strength, human development, ease of travel, political stability and overseas employment opportunities for citizens. So I thought QNI could be a better measure for governance. But data were available for 2011-2018. So I ran the regression for this period. After the regression, I found that Med produced the opposite sign. So I discarded this variable, too and my attempt to see the role of governance in making doctors turned out to be a damp squib (Hoque,2020b).

And I finally rested my trust on the following model:

$$\text{Doc}_t = a + b \text{Bed}_t + c \text{Med}_t + d \text{ADP}_t$$

## 7. Findings and Analysis

The model fits well. However, the intercept demonstrated a substantial standard error, and the coefficient for Med was insignificant. ADP expenditures on health and number of hospital beds in Govt hospitals play a significant role in the number of registered doctors. In my model, an increase in 1 crore taka in ADP on health led to around ten registered doctors churning yearly. Though Bed turned out to be significant, its coefficient is less than one. The result was:

$$\text{Doc}_t = 20088.07 + 0.16 \text{Bed}_t + 0.37 \text{Med}_t + 9.87 \text{ADP}_t$$

(t = 3.86, p=0.00, se=5194.24) (t=2.25, p=0.05, se=0.069) (t=0.16, p=0.87, se=2.35) (t=2.54, p=0.034, se=3.88)  
(F=49.33, p=0.00)

Increasing health expenditures may increase the number of healthcare providers, but I do not know whether it is enough to raise the quality of service delivery. Abdul Guffar Chowdhury, in that memoir, shared an anecdote of service delivery at Dhaka Medical College Hospital in 1953. In the general patient ward, paratyphoid patient Guffar stayed a few more days to get cured. As in those days, the patients who managed to buy medication for paratyphoid had a better chance of survival. Those who could not manage to purchase medicine succumbed to death. The medical authority could not do more. A well-to-do-of leukaemia patient was also admitted to the same ward. He did not know his days were numbered. One day the patient died. Relatives engaged in an altercation with the medical staff when they found that the naked dead body had been draped in a white bed cover and his silk Punjabi, moneybag, and golden necklace were missing (Chowdhury, 2000). Sixty-seven years later, one may call into question the improvement of service delivery in our health facilities. An increase in health spending may increase the number of healthcare providers, but whether it may ensure quality service delivery and spur research activities in the health sector is a subject of another scrutiny.

## 8. Conclusion

It is good news that the government mobilised Tk 100 crore for research activities in health (“Government will spend”,2021). Government has to ensure that research

projects from Medical Universities and institutes, genuine research physicians, and medical equipment manufacturing projects vie for such funds. For policy and socioeconomic research on health issues, there is ample funding from institutions like the Ministry of Planning, corporate NGOs and other public health organisations at home and abroad. There is no need to allocate funds from Tk 100 crore on policy research.

The latest development in COVID medication hints that oral pills have been developed in the West, and a local biotech company received government approval to develop a local vaccine. Soon local pharmaceutical companies may produce the drugs and vaccines in bulk if everything goes fine. However, the spread of the new variant, Omicron, underscores that there is little room for complacency in the fight against COVID-19. We have to recommit to mobilising more resources to spur science education and research activities. They are the quintessential things without which the country cannot take off to the next stage of development. Improving the governance situation in educational institutions is no less critical in this endeavour.

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## Public-Private Partnerships (PPP): Contextual Considerations and Areas for Reform to Offset Covid-19 Shock

Partha Sarathee Ghosh\*

### Abstract

*Public-private partnerships (PPPs) are not new. However, they are becoming increasingly pivotal to accomplishing what both sides struggle to do: rolling out the high-quality development, redevelopment, and creation of public facilities and infrastructure, and as we look to the future, the development of digital infrastructure. Ideally, PPPs create a win-win opportunity for the private sector to work with governments. Companies assume management responsibility and much of the risk in exchange for profits linked to performance. The projects create a new source of business for companies while adding private sector expertise, efficiencies, and capital to public endeavours.*

*In most cases, these projects could not get off the ground without private support, as tightening budgets make it difficult for governments to fund improvements to ageing public assets or services. Bangladesh announced a revised PPP program in the 2009/10 Budget Session and introduced a new PPP policy in August 2010 (PPP Policy 2010). Before the mid-1990s, Bangladesh had entered into several individual PPP transactions & 1996 marked the first time that a policy framework was introduced for PPPs to enable private sector partnerships in power generation. In 2010, the 6<sup>th</sup> Five-Year Plan was launched, outlining the government's vision to improve the country's economic growth trajectory. Private-sector participation is essential to bridge the investment gap and satisfy infrastructure needs worldwide. PPPs are one of many arrangements to consider, but due to their complex, timely and costly procurement, governments often struggle to apply and leverage them. Governments can implement mechanisms to nurture their PPPs and infuse efficiency and performance throughout their maturity journey. These mechanisms should be carefully crafted and ensure that actors are clear on their role and are empowered to execute it. It is a paradox that the PPP project pipeline development and*

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*implementation cannot keep pace with the growing demand for infrastructure & power projects. At the same time, the government is also unable to utilise the allocated budget for the PPP. Hence, the challenges are essential for the policymakers to deal with the issue in the best possible way. Bangladesh faces the challenges of modernising and expanding its vital infrastructure services, including roads, power, gas, port, etc. However, the health sector is still one crucial area where the public-private partnership (PPP) model could play a prominent role, particularly in the diagnostic, specialised treatment and medical waste. This paper is an attempt to analyse and draw lessons in the perspectives of the institutional, regulatory, finance, and other policy-relevant issues for the development of PPP projects & try to figure out the potential of Public-private partnerships (PPPs) to contribute to a clean and green recovery from the on-going Covid-19 crisis in Bangladesh.*

**Keywords** *COVID-19 · Public-private partnerships · Reform to offset Covid shock · Bangladesh*

## **1. Understanding Public-Private Partnerships (PPP): Understanding and Origin**

A public-private partnership (PPP) is a very particular type of contract whereby the public partner (government entity) delegates some of its responsibilities to a private partner under a long-term contract that defines the rights and obligations of each party during the term as well as the mechanisms for its financial re-equilibrium arising from unforeseen events or lack of compliance of the parties. It involves a contract between a public-sector authority and a private party. The private party provides a public service or project and assumes the project's substantial financial, technical and operational risk. In some types of PPP, the cost of using the service is borne exclusively by the users and not by the taxpayer. In other types, capital investment is made by the private sector on the strength of a contract with the government to provide agreed services. The government bears the cost of delivering the service wholly or partly. Government contributions to a PPP may also be in kind. In projects that create public goods, like in the infrastructure sector, the government may provide a capital subsidy as a one-time grant to make it more attractive to private investors. In other cases, the government may support the project by providing revenue subsidies, including tax breaks or guaranteed annual revenues for a fixed period. Ideally, PPPs create a win-win opportunity for the private sector to work with governments. Companies assume management responsibility and much of the risk in exchange for profits linked to performance.

Public-Private Partnership (PPP) projects are becoming popular as an innovative approach for developing infrastructure with the involvement of the private sector (Rashed, 2011). PPP has gained utmost attention from the public sector and donor groups, particularly in service quality, procurement efficiency, risk minimisation and the ability to combine adequate managerial and technical

capabilities. The concept of PPP though not relatively new but has not yet been developed and defined straight forward (World Bank, 2007). According to Asian Development Bank, PPP is a range of possible relationships among public and private entities in the context of infrastructure and other services that present a framework for engaging the private sector and also structure the role of government in ensuring that social obligations are met (ADB, 2008).

Who first introduced Public Private Partnerships (PPPs)? It is a question that often leads to endless discussions, provides an opportunity for one-upmanship and is an entertaining diversion for practitioners on the margins of international PPP conferences. Throughout these debates, many examples are quoted – the early 20<sup>th</sup>-century oil concessions in the Persian Gulf, the late 19<sup>th</sup> century cross-continental railway in the USA & so on. During the macroeconomic dislocation of the 1970s and 1980s, pressure to change the standard public procurement model arose initially from concerns about the level of public debt, which increased. Governments sought to encourage private investment in infrastructure, based initially on accounting fallacies arising from the fact that public accounts did not distinguish between recurrent and capital expenditures. The idea that private provision of infrastructure represented a way of providing infrastructure at no cost to the public has now been generally neglected; however, interest in alternatives to the standard public procurement model persisted. It is argued that models involving an enhanced role for the private sector, with a single private-sector organisation taking responsibility for most aspects of service provisions for a given project, could yield an improved allocation of risk while maintaining public accountability for essential elements of service provision. Initially, most public-private partnerships were negotiated individually as one-off deals.

As the debate on the origin of PPPs continues, the modern-day popularity of PPPs is more commonly acknowledged to have emerged in the United Kingdom following the introduction of Private Finance Initiatives (PFI) in 1992's autumn budget statement by RH Norman Lamont, then Chancellor under John Major's Conservative government. The 1992 programme focused on reducing the Public Sector Borrowing Requirement, although, as already noted, the effect on public accounts was largely illusory. The Labour government of Tony Blair, elected in 1997, persisted with the PFI but sought to shift the emphasis to the achievement of "value for money," mainly through an appropriate allocation of risk. In the intervening years, many developed and developing nations have started PPP programs of their own. Indeed, the growth of PPPs in developing countries is phenomenal, with the mechanism being used in more than 134 developing countries and contributing to 15–20 per cent of total infrastructure investment. Although PPPs are an ancient phenomenon, they were not studied seriously by scholars until the late 1980s, when they began to be adopted in public administration and management in both developed and developing countries. PPPs have been a topic of political controversy and scholarly debate, especially regarding the advantages

and disadvantages of PPPs compared to traditional government-run services and the nature of the partnerships they bring about.

## **2. PPP: Structure, Selection, and Financing Projects**

The art of a PPP resides in the project's allocation of risks and the definition of the framework, principles, and rules to deal with change because it will occur. So basically, in structuring a PPP contract, we need to articulate a set of incentives and penalties for potential actions of the parties to ensure the project's stability and sustainability. PPPs are complex long-term contracts which typically span 15, 20, or 25 years, sometimes more, depending on the nature of the project. In that period, technology, demographics, environment, and politics can all change, so contracts must be flexible to adjust to the project's life cycle.

PPPs always occur in the political economy arena because the parties contracting are not equal. One party is a government/public entity, and the other one is a private entity. Governments change, and so do policies. Moreover, in countries where the rule of law is not established enough to maintain the contract's stability, investors see a significant political risk that will need to be mitigated. It applies to the termination of contracts but also payment risks. The public party also needs to safeguard from the private partner. Private investors usually provide performance guarantees, sometimes parent guarantees that can be unlimited or capped. If the company does not deliver the product or service at the agreed quality or the timing contracted—if the building is not finished on time, if the water supply does not meet the specified safety levels—the government draws on such guarantees.

Proportionality of penalties regarding the type of non-compliance is crucial for the sustainability of the contract over the long term. However, contracts should mainly rule by incentives rather than penalties, giving both parties every reason to fulfil their obligations for the whole contract duration.

Due to the costly and time-consuming procurement process, PPP agreements are more suitable for large, expensive projects. It is even more relevant for countries that are new to PPP procurement. One way to ensure economic viability for PPP procurement is by establishing eligibility thresholds. In this approach, a minimum threshold is needed to:

- From a public-sector view – justify procurement costs incurred and maintain value for money.

- From a private-sector view – secure project financing; typically, this is not economical for banks/borrowers below specific amounts, and bidders would have to give full recourse to raise financing/justify transaction costs incurred by bidder.

PPPs need to be financed, so bankability is critical at the end of the day. For that, a contract must allocate risk properly. The tools for financing keep developing and adjusting, and participation of local banks is more accessible when an abundance of liquidity prevails. In some developing economies, private banks

will not be able to finance in the long term, so financing will depend on leveraging or simply mobilising organisations like the World Bank's International Finance Corporation, Asian Development Bank or others. Guarantees for a project can leverage private lenders and lower the cost of financing, but it is definite to the country and the project's structure.

### **3. Applicability and Non-applicability of PPP**

Project in PPP where at least one of the following circumstances exists:

- Financial resources constraint or absence of expertise with the government alone;
- Private investment would increase the quality or level of service or reduce the time to implement;
- Opportunity for competition among prospective private investors;
- Private investment in public service provides an opportunity for innovation; and
- No regulatory or legislative restrictions in taking private investment in the delivery of public service

#### **Non-applicability of PPP**

The following actions/activities will not fall under the PPP purview:

- Outsourcing of a simple function of public service;
- Creating a government-owned enterprise (State Owned Company); and
- Borrowing by the government from the private sector

### **4. PPP Implementation Models**

There are different models and approaches for PPPs. While other countries have adopted a wide range of models, the following are among the standard models:

#### **Build-Own-Operate (BOO)**

In this model, the private sector manages the infrastructure on a build-own-operate basis. The government usually does not manage the infrastructure developed under this model (Government of Bangladesh 2009). The private sector is responsible for building the project, owning the project & operate the project. The government sector is obligated to provide advisory services for developing infrastructure projects & implementing the linked government sector projects, which are predecessors for implementing any project. The Independent Power Producer (IPP) is an example of the BOO model in Bangladesh (Government of Bangladesh, 2009).

### **Build-Operate-Transfer (BOT)**

Here private sector manages the infrastructure on a build-operate-transfer basis, and the private sector drives the infrastructure until a specified time. After that period, a project is transferred to the responsible government for its management. (Government of Bangladesh, 2009). Sonamasjid Land Port is an example of the BOT model in Bangladesh.

### **Build-Own-Operate-Transfer (BOOT)**

It is an extended version of the BOT model. Under this model, ownership and management belong to the private sector until a specified time. After the expiry of the term, ownership and management are transferred to the government (Government of Bangladesh, 2009). Jatrabari-Gulistan Flyover Project is an example of the BOOT model in Bangladesh.

## **5. Sectoral Coverage of PPP**

“Any project fulfilling one or more of the PPP applicability criteria in any economic sector, according to the International Standard Industrial Classification (ISIC) of all Economic Activities, Revision 4, specified by the United Nations, is eligible for PPP. With this coverage in perspective, the government of Bangladesh has identified the following priority sectors:

- Exploration, production, transmission, and distribution of oil, gas, coal, and other mineral resources (ISIC 05-09).
- Oil refinery and production of LPG (ISIC 19).
- Production of fertiliser (ISIC 20).
- Power generation, transmission, distribution, and services (ISIC 35).
- Airports, terminals and related aviation facilities (ISIC 42 and 51).
- Water supply and distribution, sewerage and drainage, effluent treatment plans (ISIC 36-39).
- Land reclamation, dredging of rivers, canals, wetlands, lakes, and other related facilities (ISIC 42).
- Highways and expressways, including mass transit, bridges, tunnels, flyovers, interchanges, city roads, bus terminals, and commercial car parking (ISIC 42 and 49).
- Port development (sea, river and land) including inland container terminals, inland container depot, and other services (ISIC 52).
- Deep sea port development (ISIC 52).
- Telecommunication systems, networks and services, including information and communication technology (ICT) (ISIC 60-63).
- Environmental, industrial, and solid waste management projects (ISIC 38-39). Railway systems, rolling stock, equipment and facilities (ISIC 49).
- Tourism industry (ISIC 79).
- Economic zone, industrial estates and parks, city and property development,

and services supporting commercial and non-commercial activities (ISIC 81-82).

- Social infrastructure, e.g. health, education, human resource development, research and development, and cultural facilities, (ISIC 85-88).
- E-service delivery to citizens (ISIC 85).
- Poverty Alleviation Projects (ISIC 84).
  - o Pourashava and village water supply (ISIC 36).
  - o Remote Area Power Supply Systems (RAPSS), rural gas supply (ISIC 35).
  - o Rural Internet projects (ISIC 61).
  - o River passenger terminals/landing stations (ISIC 52).
  - o Rural health services and hospitals (ISIC 86).
  - o Irrigation and other agricultural services (ISIC 36).
- Other urban, municipal, and rural projects that the Government views as priority areas for development to support economic development activities” (The Asia Foundation, 2010).

## **6. History of Public-Private Partnership (PPP) in Bangladesh**

The PPP Foundation in Bangladesh covers three generations: the first generation of PPP began in 1996 with independent energy procedures following Bangladesh’s electricity generation policy; the second generation started with broader dimensions covering many sectors when the government approved the private-sector infrastructure guidelines in Bangladesh in 2004. Finally, the third generation of PPPs began in 2009. Moreover, the government of Bangladesh approved PPP Policy & Strategy-2010 as a guiding framework (Rashed et al., 2017). The PPP Policy and Strategy 2010 describes regulation and oversight of PPP projects and suggests opening a PPP office to promote PPP. Finally, in 2015, a PPP law was passed with some amendments and adjustments (ADB, 2017). Bangladesh’s government started to partner with the private sector in myriad ways. The partnership program on project-based initiatives continued until 1995. After that, sectorial initiatives were taken from 1996-to 2004. To make the PPP program more successful, the government opted for making program initiatives. Centrally integrated program initiative was born in 2010 to bring institutional change & regulatory changes, and this approach continues till now (PPP Authority, 2016).

## **7. Institutional Frameworks for Public-Private Partnership in Bangladesh**

The institutional framework of the PPP is a 23-member national PPP Advisory Council (PPPAC), cabinet committee on economic affairs, office of the PPP, line ministry or executive agency, finance division and planning commission. The PPP Advisory Council (PPPAC) will advise on the overall PPP policy and give broad guidance on PPP affairs under the direct supervision of the Prime Minister. The Government has established Cabinet Committee on Economic Affairs (CCEA)

under Clause 18 of the Rules of Business, 1996. CCEA is the final approval authority of Large PPP projects. The final approval authority of the Medium Projects is Finance Minister. The final approval authority of the Small Projects is the respective Minister of line Ministry. The institutional framework for public-private partnership can be described as the following matrix:

Institution	Responsibility	Form
Public-Private Partnership Advisory Council (PPPAC)	Provide guidance/advice/review achievements	PM Chairperson, Finance Minister, Vice Chairman and 21 Members
Cabinet Committee on Economic Affairs (CCEA);	Approval of regulatory instruments/Guidelines/In-principle approval for a large project, Final approval of Large/Medium project/Approval of all VGF received project, approval of incentives, Termination of the concession contract.	
PPP Office	Facilitating/Central point of promoting the PPP concept	An autonomous unit under PM Office
Line Ministry/ implementing agency	Identification, Formulation, Appraisal, Procurement, Monitoring	
PPPU, Finance Division	Financing (VGF,TA & Debt/equity through SPV)	A regular Branch of Division
Planning Commission	Link Components/ADP	

In 2011, Government established Office for Public-Private Partnership (PPP) under the control & supervision of the Prime Minister's Office to implement PPP in Bangladesh. PPP Office supports line Ministries in identifying, formulating, selecting, contracting and monitoring the implementation of PPP projects. The Office for PPP also coordinates among various government and private agencies for fast-tracking PPP projects. The Chief Executive Officer (CEO) of the Office for PPP shall report directly to the Prime Minister.

## 8. Classification of PPP Project and Approval Authority

In Bangladesh, PPP projects are classified into the three groups in terms of total investment, excluding on-going capital for expansion: Large Project (investment above BDT 2.5 billion), Medium Project (investment between BDT 500 million and 2.5 billion) and Small Project (investment below BDT 500 million). The government is expected that PPP will cover 18 sectors, including energy, power, fertiliser, port economic zones, e-service delivery, and poverty alleviation projects.

Size	Investment size as per Pre-feasibility Study Report	In-principle approval authority	Final approval authority	If VGF provided Final approval
Large	Above BDT 2.5 billion	CCEA	CCEA	CCEA
Medium	BDT 500m to 2.5 billion	CCEA	FM	CCEA
Small	Below BDT 500 million	Line Minister	LM	CCEA



## 9. Applied contractual PPP models in Bangladesh

Several contractual models of PPPs have been developed globally and are widely applied in projects. Each PPP model represents a different allocation of risk and responsibility between the public and private sectors. These can differ with the size of investment by the private sector, the basis of the revenue stream, the obligations undertaken about construction, operation, maintenance and service performance, ownership of the asset and the length of the contract period. Where the public sector retains too much risk or transfers most of it to the private sector, it falls outside the framework of a PPP.

The PPP models may be broadly categorised into two categories: a. PPP delivery models relate to the allocation of risk and responsibilities; and b. PPP revenue models relate to how the private sector investors shall be compensated. The range of contractual models concerning the delivery of PPP projects and revenue models that typically fall under the PPP framework is shown below. The optimal PPP model is determined on a case-by-case basis following the conclusion of the feasibility and market engagement study that will determine the optimum option to deliver the public sector objectives through a viable, bankable and sustainable project for the private sector.

Selecting a Private Partner for the delivery of PPP projects may be classified into 4 (four) broad phases.

Phases	Activities
Identification Phase	<ul style="list-style-type: none"> <li>- Identification of a project to be delivered on a PPP basis by any government agency, line ministry, contracting authority and/or the PPP Authority OR submission of a concept note by an interested party to the agency/line ministry for delivering a PPP project.</li> <li>- Project screening by PPP Authority and In-principal approval by the Cabinet Committee of Economic Affairs (CCEA)</li> </ul>
Development Phase	<ul style="list-style-type: none"> <li>- Appointment of Project Delivery Team and Project Assessment Team</li> <li>- Carrying out feasibility study and appointment of transaction advisor</li> </ul>
Bidding Phase	<ul style="list-style-type: none"> <li>- Evaluation of the applications, proposals or bids obtained through a single-stage bidding process or a two-stage bidding process for selection of the private partner for the implementation of the project on a PPP basis</li> <li>- Negotiation of the PPP contract with the preferred bidder</li> </ul>
Approval and Award Phase	<ul style="list-style-type: none"> <li>- Issuance of Letter of Award to the Preferred Bidder by the Contracting Authority with the support of the PPP Authority</li> </ul>

After selecting the Private Partner and awarding the PPP Contract, the Private Partner arranges finance and delivers the project, and the Contracting Authority shall monitor the implementation of the project.



### **10. Incorporation of community and product in the PPP model**

Nowadays, a new model is also being discussed, called the Public-Private Community Partnership (PPCP) model, wherein both the government and private players work together for social welfare, eliminating the prime focus of private players on profit. This model is being applied more in developing nations such as India, and success is being achieved through this model too. It mainly helps ramp up the development process as the focus is shifted towards target achievement rather than profit achievement. During the first wave of the pandemic, grants and health resources donated by cross-sector agencies and development partners supported the threats of Covid-19, which will continue to play a vital role as Covid-19 surges in Bangladesh, especially ensuring that hospitals have ready access to oxygen, vaccines, and other necessities. Actions are taken by the community and local NGOs to initially combat the Covid-19 pandemic by various means, including through cash assistance programmes for the poor, raising awareness of the risks of Covid, and mobilising critical supplies like personal protective equipment and oxygen if we would be able to incorporate these types of community-led and community-owned initiatives in PPP model that could bring forth success in Public-Private Community Partnership (PPCP) model.

Product development partnerships (PDPs) are another public-private partnership that focuses on pharmaceutical product development for diseases in the developing world. These include preventive medicines such as vaccines, microbicides, and treatments for otherwise neglected diseases. PDPs were created in the 1990s to unite the public sector's commitment to international public goods for health with the industry's intellectual property, product development, and marketing expertise. International PDPs work to accelerate the research and development of pharmaceutical products for underserved populations that are not profitable for private companies. They may also be involved in helping plan for access and availability of the products they develop to those in need in their target populations. Publicly financed, with intellectual property rights granted by pharmaceutical industry partners for specific markets, PDPs can focus on their missions rather than concerns about recouping development costs through the profitability of the developed products. These not-for-profit organisations bridge public- and private-sector interests to resolve the specific incentive and financial barriers to increased industry involvement in developing safe and effective pharmaceutical products.

### **11. Significance of PPP in 8<sup>th</sup> Five Year Plan (8FYP) and & Vision 2041 (2021-2041)**

Mindful of the resource constraints and high investment costs, the 8FYP financing strategy would combine ADP allocations with a robust public-private partnership (PPP) effort. The PPP institution will be strengthened with internationally

competent staff with experience in negotiating and managing international PPP contracts. The 8FYP would emphasise improving the intermodal transport balance, where progress was limited during the 7FYP, highlighting inland waterways that are low-cost and environmentally friendly. The importance of transport, especially air transport, for tourism would be emphasised with a focus on strengthening inter-district airline connectivity and the construction of new international transport. More extraordinary efforts will be made to improve resource mobilisation by introducing user charges for various public transport services, including road user charges, air and sea port charges, and inland water and rail fares. Effective Regulatory Mechanisms will expand the PPP in service delivery, and medical and allied education areas will be further developed and strengthened during the 8FYP with effective regulatory mechanisms.

The PP2021 under Vision 2041 Long Term Economic Planning included

- A strategy for improved governance – is based on four key pillars: (i) strengthening the civil service; (ii) promoting devolution to local governments; (iii) strengthening Public-Private Partnerships (PPP); and (iv) reforming the processes of planning and budgeting (Vision 2041, Page No-18) & The PP2021 under Vision 2041 under Short to medium-term up to 2031 included

- Mobilisation of private resources, including PPP, for the development of ICT and related skills (Vision 2041, Page No-21)

Besides this, the reform of the PPP strategy has also been addressed to achieve more robust progress under the PP2041 Transport Sector Strategy for PP2041. (Vision 2041, Page No-171).

## **12. Challenges of PPP Project Implementation**

Despite efforts to enable private-sector participation, countries often struggle to implement PPPs and structure projects properly. They face four key challenges:

1. Striking the right balance between empowering sectors and maintaining quality.
2. Ensuring the project pipeline is suitable and vital.
3. Ensuring the project is structured correctly, protecting both public and private sectors.
4. Optimising implementation to maximise the success of PPPs.

Along with those challenges mentioned above, Bangladesh also faces the following problems in project development phases which is the most crucial part of materialising a PPP project:

- Capacity
- Political Stability
- Political Commitment

- Economic & Financial Stability
- Market Demand
- Managing unsolicited proposal
- Procurement Process.

### **1.3 Investment in Health in the Covid-19 Era**

Public-Private Partnership (PPP) is also being practised in the health sector by the government to enhance effective health service delivery. PPPs can help address innovations in service design and management expertise, empowerment of the service recipients, protection of the environment, social justice and right-based service provision. The PPP in service delivery and medical and allied education areas will be further expanded and strengthened during the 8FYP with effective regulatory mechanisms.

To date, 75% of agencies in developed countries and 42% in developing countries are promoting investment in health (UNCTAD, The IPA Observer, July 2021) through online outreach and engagement activities. They are promoting investment opportunities across a broad range of subsectors, with a particular focus on the manufacturing of medical devices, pharmaceuticals and vaccines, as well as digital health and the production of personal protection equipment. There is a significant disparity among IPAs (Investment Promotion & Facilitation) in the quality and quantity of information provided online, possibly reflecting not only different priorities but differences in resources and digital capacity between agencies, as well in their ability to adopt a strategic approach to investment promotion in health

The annual budget planning process for health facilities rarely considers local needs; instead, budgets are just increased proportionally based on the previous year's allocations. On top of this, surplus funds dedicated to specific items are not allowed to be spent on another item; unused money is returned to the central treasury & treated as unused ADP. Hence, significant reforms are required to enable the private sector to perform efficiently in the health sector. The need for reforms will become even more relevant in the post-Covid-19 recovery phase when scarce public resources are likely to be prioritised in the social sectors. The reform agenda is now more critical than ever.

## **14. Conclusion**

Generally, public sector projects are remarkably different from private sector projects. These two sectors' concerned stakes and interests vary due to the generic nature of objectives that these two sectors try to achieve. Therefore, when a private investor selects a public sector project, some tuning factors must be based on which these two sectors can come up in the same slot. Hence, the government has to consider the concerns of the private sector. As far as Government awareness is

concerned, they should consider that over-tightening and over-safety turn away investors and thus highly require negotiation skills. The capacity of Government officials needs to be urgently built in this sector. A typical PPP project usually passes the design and construction risk to the private sector. At the same time, the government retains the risk of regulatory uncertainty, law changes, and delays in approvals. All risks that the private sector can manage efficiently, like availability of finance, design, construction costs, completion time, and quality of service, are passed to the private investor through contracts. Since PPPs have to be awarded through tenders to ensure transparency in the front end-development of PPPs, the activities before the award of a PPP may take a long time to occur. The inappropriate project identification process, lack of commercial focus and experience in project development often jeopardises the outcomes of PPP projects in Bangladesh. Most Government utilities in Bangladesh primarily have technical staff. The focus is rarely on the utility's commercial, Financial, Legal and Negotiation aspects. However, to manage a PPP contract, the focus shifts to how well; complex commercial contracts are understood and managed. With PPP, Government officials of Bangladesh need to understand complex business aspects of risks versus returns and make judgments on the risks to transfer and the risks to retain. A paradigm with changing skills and mindsets is needed to solve the existing situation. Only with such changes will PPP occur on a large scale.

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## COVID-19 and Higher Education in Bangladesh: A Case for Dual-Mode Education

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### Abstract

*This study looks into the effect of COVID-19 on education, specifically higher education in Bangladesh, which led to a new insight into facilitating higher education to all potential knowledge seekers, both rural and urban, and even into the potentiality of exporting higher education overseas. It is a truism that the development of human resources is crucial for a nation for its growth, development, and prosperity in all areas and fields. Bangladesh is a highly populated country. According to the UNDP report in 2010 on HDI, Bangladesh's HDI rose by 2.0% annually from 0.259 to 0.469, giving the country a rank of 129 out of 169 countries. If some effective programs can be undertaken to develop HR, a better quality of life for the people is possible, and thus the economy of Bangladesh may experience actual development. During COVID 19, the institutions of higher learning were shut down, and online education was introduced. The universities and the students initially faced challenges in adopting this method of education, but they were finally able to cope with the phenomenon. It provided new insight that online education is probably a better alternative to side-by-side campus education since it is difficult to cover the entire rural economy with a limited number of city-based campus-based universities. This insight may serve as a guideline for governments, policymakers, technology developers, and university authorities to make better policy choices in the future.*

**Keywords** COVID-19 · Higher education · Dual-modes of education · HRD · Online education · WTO · Bangladesh

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## **1. Introduction**

Covid-19 affected the entire world in all spheres of life, including education, which affected the human resource development plans of the countries of the world. The effect on Bangladesh is even worse since it is a rural economy where the institutions of higher learning are based in the cities without access to the rural masses to higher education. The pandemic led to the closure of the universities even in the cities, not to speak of the miserable fate of the knowledge seekers of rural areas. The only alternative was online education, which was unfamiliar to institutions of higher learning in Bangladesh. Finally, however, the higher education authorities in Bangladesh provided a framework for online education. The truth is that online education is imperative to facilitate human resource development in a country like Bangladesh, encompassing the country's entire population. Thus, this forced introduction of online education due to Covid-19 was a blessing in disguise. The paper proposes to look into this matter more closely to develop the idea of a dual-mode education in the country, which can facilitate education for rural masses. This paper deals with the relationship between HRD and economic development per se, the phenomenon of higher education and HRD in the context of Bangladesh, the Bangladesh experience of higher education in the Covid-19 period, and the relevance of this experience for HRD in Bangladesh with a micro example. It leads to a proposal of a Dual Mode Education for HRD in Bangladesh for an inclusive HRD plan and worldwide export of education services from Bangladesh.

## **2. Objectives of the Study**

The objectives covered in this paper are as below:

1. To explore the relationship between higher education, human resource development, and the economic development of a nation.
2. To examine the degree of accessibility of higher education in Bangladesh and look into the public policy related to HRD.
3. To elaborate on the higher education scenario in Bangladesh during COVID-19 period.
4. To propose an alternative mode of education in Bangladesh based on the Covid-19 experience, namely, the dual-modes of education.

## **3. Education, HRD, and Economic Development**

Human resources play a pivotal role in attaining economic development since human resources are the real engine of growth, ensuring proper utilisation of its physical resources and the country's production potential. However, its role depends on the numbers and quality of human resources development (HRD). The unskilled labour force becomes a liability rather than an asset. Human resources become more productive when developed with the required qualities, involving formal and informal processes by which individuals learn and acquire knowledge and skills to perform various tasks or functions associated with their expected roles.

Education is the most helpful instrument in human capital formation efforts or a vehicle of social transformation. More than any single initiative, education can foster development, awaken talents, empower people, and protect their rights (UNICEF, 2000). The formal and informal education process enables a man to be turned into a human resource. A man is considered a human resource when actively involves himself in the productive social process.

Formal education is an effective means for the needed HRD, for the transformation of society through the development of human resources. Besides an individual's understanding of himself, his community, his natural environment, access to his cultural heritage, and improving his living standards, education teaches one the art of doing things with better skills and higher productivity. Skilled labour can produce manifold more than unskilled labour can do. An educated and efficient manager can do a miracle compared to an uneducated manager in managerial efficiency. Besides, an educated workforce can lead to process and product innovations resulting in higher and better goods and services at lower costs. The end outcome is the economic and overall development of a nation.

All the above stated are supported by the phenomenon of the world. World data shows a strong positive relationship between literacy rate and human development, showing a further positive relationship between literacy rate and economic development.

*Table 1: Literacy Rate in Developed, Developing, and underdeveloped Country*

Name of the Country		Literacy Rate	Human Development Index
Developed Country	Norway	99.00%	0.957
	Australia	99.00%	0.944
Developing Country	India	75%	0.645
	Bangladesh	74.9 %	0.632
Underdeveloped Country	Yemen	54.10%	0.470
	South Sudan	34.52 %	0.433

**Source:** Wikipedia, Human Development Report Office, 2020, Statista 2019

As the table shows, more than 90% literacy rate is associated with more than 0.9 human development index (HDI). Relevant countries lie in the classification of developed countries, such as Norway and Australia. A more than 70% literacy rate is associated with more than 0.6 HDI, and relevant countries are classified as developing countries, such as India and Bangladesh. On the other hand, about 50% and 30% literacy rates are associated with an HDI of about 0.4, and relevant countries lie in under-developed countries, such as Yemen and South Sudan. There is a strong positive relationship between literacy rate and economic development through HDI, which may be considered a proxy of HRD. A more accurate relationship between the variables can be obtained if the data for higher education can be used instead of literacy rate.

#### 4. Accessibility of Higher Education in Bangladesh

Bangladesh is a low-income country and a rural-based economy. Higher education is not accessible to a great majority of potential students due to several reasons, such as the following:

##### 4.1 Vocational Disadvantage: Rural-urban Mismatch

Almost 65% of the population lives in the rural areas of Bangladesh, whereas the institutions of higher learning are more or less located in urban areas.

Thus these institutions are not readily accessible to the potential students from the rural areas due to the locational disadvantages.

The potential students can avail of urban-based higher education only if they travel and take residence in urban areas for higher education, which becomes very expensive. They cannot afford this.

Even if some of them can afford to go to public universities, these universities cannot accommodate them due to an acute shortage of seats compared to the number of potential students. In contrast, private universities are too expensive for them.

##### 4.2 Demand-Supply Mismatch

Presently, demands for higher education seats are far more than the supply. As many as 801,000 students, 422,000 boys and 379,000 girls, passed the Higher Secondary Certificate (HSC) and its equivalent exams in 2020. Of them, 37,969 achieved a GPA of 5 out of 5, while 2,16,000 scored between GPAs of 4 and 5. As against this potential demand for higher education seats, the supply of seats can be seen in Table 2.

Table 2: Total Seats for the Higher Studies in Bangladesh (Hon's or its equivalent Level)

	Name of University / Level of University	Seats
1	Public Universities	60, 000
2	Private Universities	203, 675
3	National University	87, 2 81
4	Islami Arabic University	60,000
5	Open University	77,756
6	International Universities	440
7	Medical and Dental Colleges	10, 500
8	Seven Colleges under Dhaka University	23,330
9	Four Engineering Colleges	7,206
10	Textile Colleges	720
11	Govt. and Private Nursing and Midwifery Colleges	5,600
12	Merin and Aeronautical Colleges	654
13	Institutions under DU and RU	3,500
14	Institutions under CU	290
Total		453,671

**Source:** Study Barta.com, University of Dhaka. <https://studybarta.com/public-and-private-universities-total-seats/> 3rd February 2021

Table 2 shows that there are only 60,000 seats in public universities. If the colleges and other public institutions are added, the total number adds up to 249,996 approximately. That means most students who score 80% will not be able to attend public universities. However, there are another 203,675 seats in the private universities. However, these universities are costly and not affordable to even most urban-based potential students, not to mention the rural candidates.

## **5. Public Policy on HRD in Bangladesh**

The government of Bangladesh has adopted an appreciable public policy for human resource development. HRD has been included as one of the main goals of its development agenda and economic growth. To achieve this goal, the government has allocated 23.75 per cent of the budget in the fiscal year 2020-21 to HRD-related sectors, such as education and technology, health and family welfare, women and children, social welfare, youth and sports development, culture, labour, and employment. Various programs, including the 'National Education Policy 2010', have been undertaken to create skilled and competent Human Resources for the country by enhancing the quality of education and increasing accessibility to Secondary and Higher Secondary education, Technical, and all tiers of higher education. Besides, the government has emphasised female education. Due to the government's policy of recruiting 60 per cent of female teachers in the government primary schools, the number of female teachers has increased from 21.09 per cent in 1991 to 64.20 per cent in 2021.

The government has taken some positive initiatives to establish IT-based schools, colleges, universities, and madrasas to modernise the education system and ensure the massive expansion of technical education. The government has taken many national policies to increase women's participation in socio-economic activities and empower them by expanding female education. Arrangements were made to distribute stipends to the female students at secondary and higher secondary levels and extend financial assistance for purchasing books and paying fees (The Daily Star, 11 June 2010).

## **6. Covid-19 Experience of Education in Bangladesh**

Covid-19 seriously affected the entire world, including Bangladesh, and all sectors of the economy, including education. In Bangladesh, when the first corona patient was detected on 8 March 2020, the educational institutions remained open, and the authority did not consider shutting down the educational institutions as an option. Instead, the government provided safety guidelines to combat the spread of COVID-19. Unfortunately, schools could not follow these instructions due to insufficient sanitation facilities, soap, or hand sanitiser. Hence, many teachers and parents proposed to shut down the educational institutions. Due to the increasing rates of coronavirus cases, students of 4 different departments of Dhaka University boycotted classes on 15 March. The Education Minister, Dipu Moni, declared that all the country's academic institutions would be closed until 31 March 2020. Despite

this, many coaching centres continued their operations. However, as the number of patients with COVID-19 increased, the deputy education minister on 7 April declared that holidays would be extended till the Eid holidays for all educational institutions. The government also started to broadcast the lessons for pre-primary students through “Ghore Bose Shikhi” (Learn while staying home) and later added secondary education (‘Amar Ghore Amar School’ on Sangsad Bangladesh Television from 29 March 2020) and higher secondary programs to enable students to get education en masse.

Online education remained the only viable alternative to face-to-face classes. Online classes were introduced in 15,676 out of 20,499 secondary schools and 700 out of 4,238 colleges. Approximately 2,909,844 online courses have been organised at the secondary and higher secondary levels. The students were evaluated based on their assignments without access to the conventional campus-based examination system.

For higher education at the universities, the University Grants Commission (UGC) provided guidelines and permission for online classes on 8 May 2020. The private universities were pioneers in adopting online education, although the public universities also tried to follow suit. It may be mentioned here that, among the private universities, the Asian University of Bangladesh (AUB) was better positioned to adopt the online education mode and did far better than all other universities in Bangladesh. It is because AUB received approval from the government to offer dual-modes of education from day one, from the 4 January 1996. Therefore, AUB introduced dual modes of education, namely campus-based and distance education (including online education). AUB had 18 centres nationwide to support online/distance education. The graduates of this mode of education are doing very well in the job market.

Covid-19 caused the forced introduction of online education across the board. Encouragingly, the government did not only provide permission and guidelines for online education during the Covid-19 pandemic, but the Government of Bangladesh has also provided online digital infrastructure by Bangladesh Research and Education Network (BdREN), which facilitated online education tremendously.

The Government initiated digitising higher education in Bangladesh through the Higher Education Quality Enhancement Project (HEQEP) in 2009. BdREN is an initiative of HEQEP, which began laying the foundations of digital infrastructure for higher education institutions by establishing high bandwidth and secure network connectivity at institutions. When UGC issued its directive for online education, BdREN responded by helping universities set up institutional accounts on Zoom, an online platform that gained popularity during the pandemic. They also helped teachers and university academicians with opening accounts, classroom management and assessment, and tips on making virtual classrooms more efficient. BdREN also set up a hotline to support students with network connection problems. Many students had returned to homes in rural areas, and it took a few weeks to iron out their difficulties in finding a suitable hot spot to study. For Bangladesh, this marks a

significant step forward as the digitisation of the higher education sector covers the way for further innovation. One hundred forty-seven out of the country's 153 public and private universities are receiving support from BdREN to teach online.

The positive feedback from universities has also led many primary and secondary schools to request their services. The critical role of BdREN in developing human capital and the increased demand for its services have convinced policymakers to invest more in the digital infrastructure of BdREN and the education sector. Bangladesh's Higher Education Acceleration and Transformation (HEAT) project will provide further support to the universities and the UGC to handle Covid-19 and invest in the digital infrastructure of the education sector. It will also enhance BdREN's capacity to support higher education institutions and ensure connectivity across the country's education and research institutions.

Thus the Covid-19 experience of Bangladesh presents a helpful insight for the provision of accessibility to higher education for HRD and economic development of the country through online education, given the rural bias and inaccessibility of higher education to potential rural-based knowledge seekers vis-à-vis the favourable public policy towards higher education, HRD and economic development of the country to be able to build Sonar Bangla.

## **7. A Case for Dual-Mode of Education: HRD in Bangladesh**

What follows from the above is that a dual-mode of education is a logical imperative for rural-based economies, especially for Bangladesh, where the vast majority of the population lives in rural areas. Hence, they cannot afford city-based higher education since the universities providing higher education are located in major cities, implying a high cost of living. In this scenario, the only alternative is online (including its wider variety as distance education) mode side-by-side campus mode, known as dual-mode of education, since this provides an opportunity for higher education without physically travelling to the university campuses by staying where the knowledge seekers live. It is even more accurate in the case of Bangladesh. The benefits of a dual-mode of education and, especially, that of its online component are as follows.

Firstly, in general, the cost of online education is low and affordable. Due to the lower level of campus overheads and lower infrastructure needed to operate these programs, tuition fees are also standard. Besides, *transportation costs would also be considerably reduced*.

Secondly, the vast majority of the Bangladeshi population lives in rural areas. City-based education is not accessible to them, and they cannot afford to get higher education by moving to city-based universities. Thus it is impossible to cover the general masses of Bangladesh through campus-based education alone.

Thirdly, female education will be facilitated in Bangladesh, where female students are often victims of early marriage before completing their studies. It is a usual practice in Bangladesh that women get married at a relatively early

age. Attending university becomes highly challenging due to cultural and social pressures, especially when they have children. Distance/online learning can provide an excellent opportunity for them.

Fourthly, disabled students can comfortably get higher education by staying at home without accompanying relatives, which would be necessary in the case of campus-based education. With online education facilities, disabled people gain easy access to higher education and all educational materials in the comfort of their homes. The online set-up significantly removes the hassle of physical exhaustion for mobility-impaired students and shifts impossibility to possibility making their life easier.

Fifthly, service holders can continue their higher education while not leaving their employment postings. Otherwise, their opportunity cost will be unbearable if they need to go to their jobs for campus-based education. Demand for this kind of opportunity is high in Bangladesh. A micro example can be cited in support of this statement. In November 2021, after the government had ordered the reopening of campuses, some primary and secondary teachers of Khagrachhari district of Bangladesh visited the Asian University of Bangladesh with a request to continue the option of online education, who were availing of the online education facility during the Covid-19 period to complete their Master's degree, as they were unable to attend campus-based classes. Without distance/online learning options, they would be unable to continue their studies.

Finally, it is impossible to impart higher education to all the potential Bangladeshi students through campus-based education alone since seats on the university campuses do not match the number of knowledge seekers, as elaborated in Section 4 of this paper. Thus, the limited number of seats in the city-based universities cannot accommodate many knowledge seekers, even if they can afford this. Many students can avail of higher education only if an online alternative is available.

## **8. A Case for Dual-Mode of Education: Export of Education from Bangladesh**

Many countries desire to increase their exports to the world market, including education services. There was a time when students from other countries came to Bangladesh for higher studies. For example, Malaysian students used to get degrees from Dhaka Medical College and other universities. Now Bangladeshi students go to Malaysia for higher studies. It is not that the quality of education in Bangladesh has gone down drastically.

On the other hand, Malaysian authorities supported efforts to export education to overseas countries. Online education in Bangladesh can help in this. There are good opportunities for such export of educational services in the case of Bangladesh as well. For example, there has already been a proposal to the Asian University of Bangladesh from one of the Arab countries to open an online/distance education centre since the children of Bangladeshi expatriates of that country are not allowed



to study in its national universities. Online/distance education will permit many students from other countries to get Bangladeshi degrees, which will increase the inflow of foreign remittance.

## **9. A Policy Proposal**

Given the rural-based scenario of Bangladesh, where campus-based higher education is not accessible to the great majority of the potential knowledge seekers, a helpful insight of an alternative mode of education provided by the Covid-19 experience, and given the rationale presented above, the paper would like to propose “Dual Modes of Education for Bangladesh.” It will hopefully make higher education accessible to all potential students at an affordable cost, contributing to human resource development for building Sonar Bangla, a nation’s dream.

## **10. Some Concluding Remarks**

1. Higher education contributes to human resource development (HRD), and HRD leads to economic development.
2. Higher education is not accessible and affordable to most knowledge seekers in Bangladesh since they live in rural areas outside the coverage of city-based campuses of private and public universities.
3. On top of this, Covid-19 affected all activities in Bangladesh, including the closure of educational institutions.
4. To overcome the Covid-19 effect on education, an alternative mode of online education was adopted as a substitute for campus-based face-to-face education, which was proven to connect the students even from the rural areas.
5. The educational experience of the Covid-19 period provided a helpful insight into an alternative method of HRD in Bangladesh, which may hopefully contribute to the provision of higher education in a situation whereby campus-based education is unable to do the same for all potential knowledge seekers. Thus Covid-19 may be treated as a blessing in disguise.
6. The policy suggests introducing dual modes of education in the country, face-to-face campus-based education and side-by-side online education, as is done in most the developed countries, where it is less desirable. It will need a suitable digital infrastructure and internet accessibility throughout the country.

## **11. Further Study**

This study provides post-Covid-19 insight for dual modes of education. However, it does not go deep into the needed digital infrastructure, internet access, and effectiveness of online education in the status quo phenomenon. Further study will be required to examine the existing digital infrastructure needed for effective dual-mode instruction. However, the optimism is provided by the commitment of the government to develop a digital Bangladesh in a manner that both will go hand in hand.



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## Impact of COVID-19 Pandemic and Human Development

Nasrin Nahar Papri\*

### Abstract

*The covid-19 pandemic is far more than a health crisis; it affects societies and economics at their core. While the impact of the pandemic will vary from country to country, it will more likely increase poverty and inequalities on a global scale, making achieving SDGs even more urgent (UNDP 2020). Coronavirus is causing the most damage to the worldwide economy. The world faces the most challenging economic situation after the 2<sup>nd</sup> world war. The outbreak of the pandemic COVID-19 has disrupted political, social, economic and financial structures worldwide. The most affected are tourism and travel-related transport, hotels, restaurants, financial markets, supermarkets and the health system. Bangladesh is also experiencing the bitter experience of the effect of the corona. According to the Bangladesh Bureau of Statistics(BBS), there are 34 million poor people. As a result of the extended lockdown, people of many professions lost their job. The average income per family in the country has dropped by TK 4,000 due to the corona epidemic. The increased prevalence of Covid-19 has had severe implications for most organisations' and professionals' well-being, especially in human resource management and marketing. Human resource development is an essential element of a country's economic development. It should establish the impact of COVID-19 on different human resource practices and future marketing. Marketing has also shifted to other online platforms since physical contact with customers is prohibited from maintaining social distance, one way of preventing coronavirus. These changes have been associated with negative implications, and some positives as some professionals find it more flexible and convenient to work remotely. To cope with the current changing times, an organisation must adapt to the new and implement strategic policies and procedures to maintain a steady flow.*

**Keywords** COVID-19 · Impact · Human development · Bangladesh

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## 1. Introduction

A novel coronavirus is a new strain that has not been previously identified in humans. The virus was subsequently named the “COVID-19 virus”. The COVID-19 pandemic, also known as the coronavirus pandemic, is an ongoing global pandemic of coronavirus disease 2019 caused by Severe Acute Respiratory Syndrome Coronavirus 2(SARS-COV-2). The COVID-19 pandemic has been labelled a black swan event that caused ripple effects on every aspect of human life. The novel virus was first identified in the Chinese city of Wuhan in December 2019; The World Health Organization (WHO) a Public Health Emergency of International concern on 30 January 2020. The Novel coronavirus (COVID-19) was declared a pandemic by the world health organisation (WHO) on 11 March 2020. Multiple virus variants have emerged and become dominant in many countries since 2021.

Coronavirus disease is a human social and economic crisis that has attacked the core of human existence. It continues to spread uncontrollably worldwide, as of 11 May 2020. 2,403,888 people have been infected globally (WHO,2020). The outbreak is predicted to peak in June 2020, declining only from July 2020 onwards (WHO, 2020). The COVID-19 pandemic has affected all segments of the population, especially vulnerable groups such as the old, the infirm, the disabled, the marginalised and the poverty-stricken. In response to the pandemic outbreak, the leaders of many countries decided to save lives before saving the economy, declaring sudden or phased lockdowns in their countries. Policies like “social distancing” and “stay-at-home” were implemented overnight, severely damaging several industries’ businesses. Lockdown in the country means limiting millions of citizens to their homes, shutting down businesses and almost all economic activity. Coronavirus is causing the most damage to the global economy. The most affected are tourism and travel-related to transport, hotels, restaurants, sports, electronics, the financial market, supermarkets, and the health system. Only if four months after its outbreak, the entire world economy become depressed. The highest number of infections and deaths in 24 hours occurred in the United States. Mexico ranks second in daily deaths. Russia is at the top of the list of casualties. The Latin American country of Brazil is the third most affected by corona and the second most common cause of death. India is in the second position in the list of those affected by corona. However, India ranks third on the death list due to the virus. In India, 3 crores 31 lakh 36 thousand 758 people were affected, and 4 lakhs 41 thousand 72 people died. The death toll from the coronavirus globally is more than 5 million. 5,171,739 people have died so far from the coronavirus COVID-19 outbreak as of 22 November 2021. While the impact of the pandemic will vary from country to country, it will more likely increase poverty and inequalities on a global scale, making achieving SDGs even more urgent (UNDP 2020).

## 2. COVID-19 and the SDGs

Rich or poor, the pandemic has forced us to reconsider almost every aspect of how we live. UNDP estimates global human development- a combination of education, health and living standard - could fall this year for the first time since 1990, when measurements began. “The world has seen many crises over the past 30 years, including the global financial Crisis of 2007-09. Each has hit human development hard, but development gains accrued globally yearly. COVID-19, with its triple hit on health, education and income, may change this trend. “The pandemic presents an enormous challenge and tremendous opportunities for reaching the 2030 Agenda and the Sustainable Development Goal(SDG).

The SDGs are a roadmap for humanity. COVID-19 has exposed weaknesses in global food supply chains. About 1.6 billion people work in the informal economy - nearly half the global workforce. The International Labour Organization reports they are in immediate danger of destroying their livelihood.

The ILO reports that more than one in six young people has lost their jobs since the pandemic began, and those still at work have seen their hours reduced. UNESCO estimates about 1.25 billion students are affected by lockdowns. UNDP estimates that 86 per cent of primary school children in developing countries are not educated. The pandemic has re-emphasised the ‘digital divide’ and the right to internet access, particularly for rural areas. UNDP estimates that closing the digital divide would reduce the number of children not learning because of school closures by more than two-thirds. Scientists have warned for years that unrestricted deforestation, the illegal trade, and diseases that cross from animals to humans would unless an uncontrollable pandemic. Investing in green economies is crucial to restore the balance between people and the planet and help countries recover. For the first time in a hundred years, the world is focused on a common goal: beating coronavirus.

Global phenomena representing the SDGs’ core focus have been significantly altered, drawing our attention to new realities and ways of life we did not imagine before. Lockdown measures with high human and economic costs heavily affect mobility and migration. The pandemic triggers a financial crisis of enormous proportions with an augmented impact on developing countries, putting many people in poverty. For the first time in three decades, poverty is increasing. The economic consequences are significant and widespread, affecting all areas of the economy, including capital flows: business operations, employment and jobs. Education is forcefully digitalised, impacting over 1.2 billion learners in over 170 countries (72% of all learners) during the initial lockdown.

Getting “ back to normal “ is simply not feasible- because “normal” got us here. The crisis has shown us how deeply connected we are to others and the planet. COVID-19 forces us to revisit our values and design a new development area that balances economic, social and environmental progress as envisioned by the 2030 agenda and the SDGs. Integrated solutions are the only way in which

we'll be able to build a greener and more inclusive future to help countries meet the 2030 goals.

### **3. Effect on World Trade**

According to the World Trade Organization, world trade already experienced a slump in 2019, and the COVID-19 pandemic precipitated a predicted global crisis. Early estimates have indicated that significant economies will lose around 2.4 to 3.0 per cent of their gross domestic product (GDP) due to the COVID-19 pandemic (WTO). It is becoming challenging for most businesses worldwide to keep their financial wheels rolling, given reduced revenues and a high level of uncertainty. It is thus of the utmost importance for businesses to conduct a proper assessment and feasibility analyses of their business models. COVID -19 has also rapidly pushed firms worldwide to operate in newer and more resilient ways as firms change their priorities in response to old challenges like real-time decision-making. Workforce productivity, business continuity, and security risks, more unique challenges introduced by the pandemic, are testing businesses' resilience as they attempt to lay a foundation for the future.

### **4. Effect on Tourism**

Before COVID-19, travel and tourism had become one of the most critical sectors in the world economy, accounting for 10 per cent of global GDP and more than 320 million jobs worldwide. The global pandemic, the first of its scale in a new era of interconnectedness, has 100 million jobs at risk, many in micro, small, and medium-sized enterprises that employ a high share of women, who represent 54 per cent of the tourism workforce, according to the United Nations World Tourism Organization (UNWTO). Tourism-dependent countries will likely feel the negative impacts of the crisis for much longer than other economies. Contact-intensive services key to the tourism and travel sectors are disproportionately affected by the pandemic.

### **5. Impact of COVID-19 on the E-commerce**

Not only Bangladesh but almost all of the countries in the world face a lockdown due to the outbreak of coronavirus. Economies are slowing down; people are losing their jobs, and many lower-income people are going into extreme poverty. E-Commerce businesses are also due to restrictions on transportation and fear among some consumers of getting infected by the delivery men.

E-Commerce sites also failed to source products initially as all the shops were closed abruptly. Especially, Fashion, IT services, dairy products, household stationery, cleaning materials, sanitisers, health products etc. But eventually, in minor cases, all the products were available to the e-commerce sites, but they still struggled as most of the delivery men returned to their native places. All these were initial problems, but traffic on the e-Commerce sites started to increase as time passed.

## **6. A human Development Perspective on How to Respond to COVID-19**

The policy response to COVID-19 has to balance public health priorities with economic and social activities, accommodating short-term measures to mitigate the virus's spread and long-term effects. A human development approach places protecting and enhancing human capabilities as the central anchor guiding analysis and policy, with a systemic and long-term view. The health and economic responses are to be shaped to protect and expand capabilities during and after the crisis: The health response to promote long and healthy lives, and the economic response to accommodate a well-calibrated "downtime" with the protection of living standards. There is no intrinsic trade-off between the health and economic dimensions from this perspective. Countries and communities able to tackle the health shock through no pharmaceutical interventions are expected to be better off in the long term, but in the short time, no pharmaceutical interventions lower economic activity and constrain activities for which social distance is difficult or impossible, as education in schools. Suppose systemic mechanisms are in place and an equity lens is applied. In that case, economic and social measures to support no pharmaceutical interventions—losses in human development can be significantly reduced in the short term and transformed into opportunities in a long time, linking (to the extent possible) immediate action with structural needs. If, on the other hand, no pharmaceutical interventions are not adequately implemented—with a focus on preserving or expanding capabilities—, there might be long-lasting costs to well-being. What would a systemic mechanism look like? Standard countercyclical economic policies that consider only the economy are not well suited to a systemic response. The more traditional approach will likely be entirely relevant in the recovery phase. But when the shock affects several dimensions simultaneously (through direct or indirect channels), balancing short-term needs and longer-term impacts could be accomplished if the guiding principle for policy decisions enhances equity in capabilities. Inequalities in human development represent a lack of capacities for many populations. These inequalities tend to increase during crises, at least in the short run. So, the priority should be reducing these gaps by boosting the capabilities of those already falling behind before the crisis. A strategy consistent with this principle depends on the availability of resources. Without savings, insurance systems or access to capital markets, the national and international public sector must step in and facilitate transfers to overcome transitory shocks. This section illustrates how capabilities and distributions matter to the health and economic responses to the crisis. The support for basic capabilities is crucial to contain the indirect adverse effects of COVID-19 on people. Enhanced capabilities—access to technology, knowledge and quality health services—are not a luxury. They play a crucial role in dealing with the crisis in adaptation and mitigation.

Human development includes many concepts; initially, a few such concepts were seen as "essential components" of the human development programme



(HDP) (UNDP1995). These are (i) Productivity, (ii) Equity, (iii) Sustainability, (iv) Empowerment, (v) Cooperation, (vi) Security.

Productivity implies enhancing people's capacity to produce and their total, better participation in income generation remunerative employment. Equity provides accessible, equal opportunities by eliminating all barriers to economic and political involvement; sustainability ensures that all forms of capital - physical, human and environmental- should be replenished. Empowerment means that development for the people is brought about by the people, i.e., participatory development and cooperation demonstrate the concerns with people as individuals and their interaction within the community. The idea of cooperation also includes the concept of 'social capital'; Security encompasses freedom from threats, repression, severe disruption in daily life, unemployment, food security, and economic security.

The concept of human development is defined as the enhancement of people's capabilities, choices and contributions. The term enhancement implies that human development is dynamic, evolutionary, and continuous. By 'contribution' means the necessary participatory harmonic relation between the individual and the community- local, national or humanity at large.

Human development is also largely dependent on the freedom to make choices- economic, political, associational, residential or habitual in nature, freedom from hunger, fear, unemployment, exclusion, discrimination and persecution. The term 'capability' comprises all aspects of human, physical, intellectual and social endowments.

It includes a variety of needs that need to be fulfilled to enhance a person's capacities and abilities, such as good health, nutrition food, functional (purposive) education, convenient housing, a clean environment, a safe neighbourhood, etc. HDP addresses the available relations between its three components – capabilities, choices, and contribution. Enhancement should occur on all three planes simultaneously; the first two capabilities and choices are centred mainly around the individual, whereas' contribution 'is the bond between the individual and society.

Each of these three components of the HDP has both intrinsic and instrumental values. The three accommodate the most - if not all-important concepts of human development. Capabilities and choices would suggest empowerment, productivity, security and equity, and contribution indicates cooperation, participation and sustainability.

The 'capability approach introduced by Nobel Laureate Amartya Sen describes welfare as the capability to function. It states that whether a person or community is poor or non-poor depends on his ability to function in the community.

The HDP is also based on ideas of cooperation and participation of individuals in community life and the freedom to make choices. Amartya Sen explains that the nature of development can be assessed by the degree of freedom of choice people enjoy in a community. In his theory of entitlements, Amartya Sen states that poverty

is not just a matter of being poor but lacking specific minimum capabilities. Sen has also maintained that the deficiency of traditional economics concentrates on the national product, aggregate income and total supply of goods rather than the entitlements of the people and the capabilities that these generated. Entitlement refers to the set of alternative commodities that a person can command in a society using all the rights and obligations.

The UNDP defines human development as a process of enlarging people's choices. This depends on income and other social indicators such as life expectancy, education and health provision. The UNDP introduced Human Development Index (HDI) in 1990 in its first Human Development Report.

The HDI does not depend solely upon per capita GNP as an indicator of human development. It combines a measure of PCI with life expectancy and literacy rate. The HDI is not the first index that has tried to put various socio-economic indicators.

Per capita income alone is not a perfect measure of development. The Human Development Index (HDI) measures the average achievement of a country in basic human capabilities. The HDI indicates whether people enjoy a long and healthy life, are educated and knowledgeable, and enjoy a decent standard of living. HDI is the weighted average of three indicators of development, namely:

1. Life expectancy at birth- which also indirectly reflects child and infant mortality rate,
2. Educational attainment of the society- measured by a combination of adult literacy [2/3weight], and
3. Per capita income- real GDP per capita.

However, the HDI does not consider the inequality between men and women. The Gender Empowerment Measure (GEM) concentrates economic, political, and professional participation. It differs from the GDI, which is concerned primarily with the basic capabilities and living standards. Like the HDI and GEM focuses on a few selected variables, even challenging participation can take many forms.

In most countries, industrial or developing, women are not yet allowed equality in terms of professional or political opportunities. Thus, much progress must be made in removing gender inequality in almost every country.

## **7. COVID -19 Rethinking Human Development**

The Covid -19 pandemic has impacted one of the core foundations of the concept of human development. The Covid 19 pandemic has affected economic thinking on the path of human development. It has impacted one of the core foundations of the concept of human development, i.e. a healthy and long life. The UNDP's human development index(HDI), which seeks to convert the transitory gains of economic growth into a permanent profit of human development, has shown its

transient nature in the face of COVID-19. The unprecedented calamity has brought to fore a chink in the armour of human development, which can wipe out gains made in enhancing the choices and capabilities of humans - with a single stroke.

Covid -19 is a one-off event. Just as nuclear weapons are a reality, so will pandemics in the days ahead. It is known now that pandemics will continue to happen in the future, and their intensity will only increase with time. With humanity brought to a standstill to curb the growth of the disease, a key question emerges on how to hedge the gains made in human development- over the years- without having to start from the beginning. A possible approach can be developing a metric within HDI called 'pandemic preparedness, which will judge nations on three core assessments of public health capacity and governance to deal with such events in the future.

### **Rethinking Human Development: Pandemic Preparedness**

After analysing the impact of pandemics on the HDI, seen through the high morality in countries having high life expectancies, the need for measuring epidemic management becomes imperative. A new indicator called ' pandemic preparedness' is the need of the hour. this new indicator has some core values of assessment which are as follows:

#### **Policy Response by the Government**

Government response to any emergency is of critical importance. A stable and coherent policy that follows expert advice and uses a scientific approach can significantly impact dealing with public health emergencies like COVID-19. The policy response indicator seeks to examine the time taken by the country's government to come up with a coherent response to epidemic management. It also highlights the importance of such a policy at the early stages of a crisis such as COVID-19 through non-pharmaceutical measures, such as lockdowns and social distancing.

#### **Mobilisation of Resources**

Mobilising resources during a pandemic means mitigating the impact of shock and effectively tackling the shortage of farm essentials, food shortages, shortage of essential medical equipment through an out-of-the-box solution. For example, India transformed its unused railway compartments and hotels into quarantine shelters to ensure that there is no shortage in the long run. The concept is also crucial because it reduces the dual burden and ensures that all resources are utilised to tackle the pandemic.

## **8. Impact of COVID -19 and Bangladesh**

The virus was confirmed to have spread to Bangladesh in March 2020. The first three known cases were reported on 8 March 2020 by the country's epidemiology institute, IEDCR. Since then, the pandemic has spread daily over the whole nation, and the number of affected people has been increasing. Bangladesh is the second most affected country in South Asia, after India. The Government declared a "lockdown" throughout the nation to protect the population from 23 March.

### **Economic**

The COVID -19 pandemic has heavily impacted household and individual level earnings in Bangladesh, with around 13 per cent of people have become unemployed, being women in informal employment are more likely than men to see their working hours reduced; meanwhile, the national poverty is predicted to increase by 25.13 per cent, claimed by Bangladesh Institute of Development Studies (BIDS).

The pandemic has taken a heavy toll on almost all sectors of the economy. Most notably, it has caused a reduction in exports by 16.93 per cent, imports by 17 per cent, and a decline in average revenue for all small and medium enterprises (SMEs) by 66 per cent increases this year. Even though garment factories were allowed to continue operating under the country's lockdown, an estimated one million garment workers, or one-quarter of the workforce, were laid off due to declining orders for export.

### **Education**

The pandemic caused significant disruption to the educational sector in Bangladesh, which has approximately 200,000 educational institutions across the country and over 40 million students. In March 2020, Bangladesh closed all of its educational institutions to reduce the spread of COVID -19. Educational institutions began online classes in July 2020. Experts and students have voiced concerns about accessibility to online courses for many students in Bangladesh, with poorer students, particularly in rural areas, lacking the devices and internet connectivity to participate in their classes. Educational institutions remained closed for over one year.

### **Air Travel**

In March, Bangladesh suspended all domestic and international flights to manage the spread of the virus. Initially, direct flights to the UK and China were exempted from the flight suspensions, but the UK was also suspended in April, making China the sole exception.

At the beginning of June, domestic flights resumed on a limited scale; international flights resumed from Dhaka airport on 16 June 2020. In April, with cases rising steeply, the Government announced another national lockdown and the suspension of all international flights to and from Bangladesh.

### **3 Crore 24 Lakh People are Newly Poor in Bangladesh**

Coronavirus started on 8 March 2020 in the country; the epidemic has been contagious since then. However, Bangladesh has been able to deal with this epidemic. But many people lost their jobs during this epidemic. They have suffered financially, financially damaged. As a result, 3 crores 24 lakh people have become poor. Lack of coronation- many people have left the capital city and gone to the villages due to shortage. According to a BRAC Institute and the Power of Participation Research Center (PPRC) survey, the number of new poverty cases was 24.5 million in March this year. In the last six months, 79 lakh people have become poor. This number has increased since the lockdown in April 2021 this year. According to the survey report, BIGD and PPRC said that 28 per cent of the country migrated to rural areas due to poverty during the corona period. The survey result shows that human food expenditure has been relatively low during the Corona period.

The per capita expenditure of poor people in the city was taka 65. Now it is taka 54. Food and house rent, medical expenses, education, and communication have also increased the expenditure of poor people. In March 2021, the spending in the slums was Taka 936. Expenditures in the village have grown from Taka 647 to Taka 777. The urban, poor and rural people must borrow to meet these additional costs. Poor people in rural and urban areas have borrowed the most from shopkeepers. The rate is 63 per cent in rural areas and 60 per cent in urban areas. Most of the loans have been taken for daily running. It is impossible to overcome this poverty through conventional poverty alleviation efforts or the ongoing stream of social security. New thinking is needed at the policymaking level.

### **Corona's Impact and Reaction to Bangladesh's Economy**

When Bangladesh became a developing country, Corona's impact was felt in Bangladesh's economy and elsewhere. However, due to the coronavirus, the economy of Bangladesh was not as bad as it was supposed to be. The economies of many countries have collapsed. The economies of many countries have changed. After corona, a big question has arisen about Bangladesh's struggle for life and livelihood. A new poverty group has been created. The lives of 1.5 to 3 crore people are at risk. Ten per cent of the people are living below the poverty line. Human unemployment has been created. Inequality has been accentuated. Distressed families have suffered. They are facing a hostile world.

We have to take short- and long-term plans to make up for the loss. We must bring new ideas in policy thinking, administrative reform, and institutional strengthening within the economy. In general, Bangladesh has become dependent on the world economy. Foreign aid to the world economy will shrink from next year because the developed donor countries are themselves amid the economic crisis.

Moreover, first of all, as Bangladesh moves out of the least developed countries, the tendency of donor countries to provide help will decrease. Second, remittance flows are now high. But there is no guarantee that remittances will remain the same in the coming days. Similarly, foreign direct investment is also low. There is export trade in a somewhat volatile state at the moment. In such a scenario, we have to change our attitude towards the economic thinking of Bangladesh, build a national industry with much more internal resources, create domestic market-oriented demand, and connect the developing middle class with it- we have to get into such thinking. That means the country's market is essential. Now it seems the time has come for our 16 crore people to use the domestic market to think of new industrialisation and build a high-value services sector. The rate of COVID-19 infection in Bangladesh is the third highest in South Asia after India and Pakistan. But much higher than Bhutan, Srilanka, and Nepal. In other words, Bangladesh is in the middle of South Asia. There is overall stability in Bangladesh; there has been growth. Compared to many other countries, Bangladesh's economy has not shrunk. Bangladesh is still exporting. That amount of remittances is coming; the value of the money is fixed. Inflation is down. There are many advantages to this.

## **9. COVID -19 and Human Development Crisis: What Have We Learnt?**

Covid -19 simultaneous impact on multiple development areas- education, health and the economy- sets it apart. Its geographic reach, pandemic, and spillover have touched every country.

Of course, the world has seen many crises over the past 30 years, including health crises from HIV/AIDS to Ebola and economic problems such as the GLOBAL financial Crisis of 2007-09. Each has hit human development, divesting the lives of millions. But overall, the world has still made development gains year on year. What distinguishes COVID -19 is the triple hit to health, income and education, fundamental building blocks of human development. And as a result, the global human development index is on course to decline this year for the first time since the concept was introduced in 1990. Something that can still be avoided or mitigated with solid policy responses.

Today, with large portions of many economies at a standstill, and millions out of school, the impact on human development is enormous. But with concerted effort, much of that damage can be turned around. However, it will require a change in global cooperation that promotes more coordination among countries and collective action in multiple dimensions of development. Governments must learn from each other, working together on an equal footing, to fight inequalities from access to quality healthcare to broadband internet.

When we think about the overall impacts of the pandemic, we can consider a nation's vulnerability and resilience. How likely a country is to fall victim to the disease (susceptibility), and how profound are the impacts (resilience).

Scientists are still racing to understand the factors that drive or hinder the spread of COVID-19 and what makes any one country more vulnerable than another. There are also a set of characteristics which typically render nations more vulnerable to crises. Some factors determine a nation's resilience to the broader socio-economic fallout from national shutdowns, closed borders, etc. And these are linked to existing inequalities. On the health side, hospital beds, access to ventilators, and protective gear have provided vital to keeping people alive. And an ability to test widely for the disease seems critical to progress, as will- hopefully one day - access to a vaccine. The high human development countries have advantages here.

Turning to education, while many schools have closed, not all people are faring equally. UNDP estimates suggest that 86 per cent of children in primary education are not getting an education in low human development countries, compared to just 20 per cent in countries with very high human development. Until it is safe for schools to reopen, children out of school will not be learning unless they can access classes remotely - over the radio, TV or the internet.

Millions of people are no longer working. But in countries with a robust public safety net, these newly unemployed workers will receive some income at least. In developing countries, informal economy workers represent about 70% of the workforce. Only 29 per cent of the world has comprehensive social protection coverage, with underinvestment particularly acute in Asia, Africa and the Arab States.

And so, existing inequalities between countries - in health or technology or social security- will play an essential role in determining the impact of the crisis and recovery times. Those countries, communities and groups already lagging will be particularly affected by the fallout from COVID-19. This, in turn, will deepen existing inequalities.

The crisis reminds us that inequalities in one area can have far-reaching and unexpected impacts. And yet action is affordable: for instance, closing the gap in Internet access in low- and middle-income countries are estimated to cost only 1 per cent of the extraordinary fiscal support packages the world has committed to respond to COVID-19.

The global community needs to work towards eradicating these inequalities, without which recovery from the COVID-19 crisis won't be sustainable. And while countries have scrambled to respond to the situation in its immediate phase, the international response must combine economic, environmental and social progress and promote societies that leave no one behind. We cannot go back to the status quo before the crisis when global unrest and citizen discontent were the norms.

### **What Have We Learnt from the Crisis so Far**

1. Controlling the spread of the virus is a global public good. Preventing the spread of the virus by addressing the crisis and building resilience is undoubtedly in



- the interest of all developed and developing countries. This is the case for all infectious diseases.
2. Coordination across different policy communities in a multidimensional crisis, with local, national and global health, economic and social aspects; effective recovery plans have to factor in the growing interdependence among regions and countries, connecting global challenges to national development strategies.
  3. Multidirectional learning is fundamental. Different starting points before the crisis have determined countries' capacity and resilience in fighting COVID-19 and its aftermath. Regardless of countries' development status, policy exchange has been insufficient. Exchanging on shared policy issues in the future will be indispensable.

### **How do we put these lessons to use going forward as we strive to build back better and reduce inequalities?**

1. Investment in global public goods like communicable disease control demands appropriate financing frameworks. Pandemics know no borders. National resources pooled and coordinated at the worldwide level, as the response to the HIV/AIDS pandemic shows, can effectively ensure they go where they are needed, underpinned by processes that provide transparency and accountability. Equitable access to therapeutics and vaccines is also critical.
2. Promoting mutual learning in the recovery, we must learn lessons from countries at all levels of development for better and more innovative policies and forms of cooperation. They must combine different skills and capacities, building resilience and reducing inequalities among countries. The recovery must be embedded in multidisciplinary national development strategies reflecting local and international interdependency. Something that has been made strikingly clear by this crisis.
3. Beyond infectious diseases, approaches to improving global public goods' provision call for collectively coordinated action and investment. This is also the case for a sustainable recovery, co-designed by developed and developing countries, involving the private sector and other relevant actors. Only a truly global effort can address shared global challenges like pandemics and climate change.

The extraordinary scale and speed of the reaction to the pandemic over the past three months offer a glimmer of hope of how significantly humanity can act when convinced of the need. But we need to scale, adapt, and rebuild trust at the national and global levels with recovery. It is in our hands to reverse the human development impacts of COVID-19. There is also room for hope: when the world is back on the road to recovery, we may equally be able to readdress inequalities and address climate change collectively.



## **10. Conclusion**

Human development is the heart of any country's economic development. The Human Development Index is important as it measures a country's social and economic dimensions. The world has seen many crises over the past 30 years. Each has hit human development hard, but overall development gains accrued globally year-on-year. The recent development of vaccines against COVID-19 has brought the light of hope worldwide. Economists also began to see the ray of hope. But the world is still struggling with the growing COVID-19 infection. Understandably, the world economy is not returning to normal. There is a need for long-term structural reform in addition to infection control. Due to the severe and worsening conditions around the world, all countries need to cooperate among themselves, and all countries need to unite and fight against this virus effectively to end the coronavirus epidemic. To save the global economic and financial structure, it is time for all countries to cooperate and help each other defeat this deadly epidemic. All countries believe that all the nations together will find a solution to end this coronavirus epidemic. So that all countries of the world can start on the path of progress again. But first of all, we need to control the infection. Economists believe the economy will not be normal if people's confidence does not return.

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## Global economic stagnation due to a worse coronavirus pandemic and massive lockdown, and humanitarian disaster!

Shamema Akter\*

### Abstract

*The novel Coronavirus was first commenced from an outbreak in Wuhan, China, in December 2019. Then the virus failed to control and quickly spread worldwide. On the one hand, the doctors and nurses provide day and night services to the patients. On the other hand, Scientists have been working day and night to prevent this epidemic and invent the vaccine. But in the meantime, the outbreak has caused the global economy to collapse, and the situation is evolving daily. Indeed, the calculation of actual losses depends on a few factors. Such as the dimension of coronavirus infections, how long they will last, and policymakers will take measures to minimise health risks and economic harm.*

*The UN<sup>1</sup> estimates that the global currency will reduce by USD 2 trillion. Many people will lose jobs due to the coronavirus pandemic. During this catastrophic pandemic, people's purchasing power will decrease, which will slow down the economy. Therefore, investment in the economy has to be reinforced to create employment. However, these investments need to be managed efficiently and bring transparency. It will have to increase government expenditure and protect the poor. Secretary-General of UN Mr António Guterres has launched a USD 2 billion<sup>2</sup> global humanitarian response plan for the most vulnerable. According to the United Nations Conference on Trade and Development report, developing countries could lose at least USD 220 billion in income, and development has called for USD 2.5 trillion to support them. Also, World Bank has declared USD 14 billion<sup>3</sup> for fast track package to strengthen the coronavirus pandemic response in developing countries, protect the poor and*

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<sup>1</sup> United Nations

<sup>2</sup> <https://www.undp.org/content/undp/en/home/coronavirus.html>

<sup>3</sup> <https://www.worldbank.org/en/news/press-release/2020/04/02/world-bank-fast-tracks-1-billion-covid-19-support-for-india>

*vulnerable, support businesses, and recover the economy. And, according to World Bank Group's broader economic program revealed, provide up to USD 160 billion<sup>4</sup> in support to client countries over the next 15 months.*

*This article aims to present the deadly negative impact of Covid-19 on globalisation, global health, trade, travel and tourism, food-agriculture production, education system, social activities, supply-chain, workforce, and industrial development. So far, the pandemic has caused more than 502 million cases and 6.19 million deaths worldwide with a CFR<sup>5</sup> of 1.2%, and in Bangladesh, 1.95 million total confirmed cases and 29,124 deaths, thus a mortality rate of 1.5%. This paper has discussed the social communities in the transmission of COVID19, the resulting economic catastrophe, and the struggle for life and livelihood. This paper may help raise awareness about the virus.*

**Keywords** COVID-19 · GDP growth · CFR · Pandemic

## 1. Introduction

There was reported by various media outlets in December 2019 that a seafood market in Wuhan, China, was a potential place for the virus to spread. The coronavirus later became a pandemic, which subsequently spread worldwide.

It is an ongoing global pandemic of novel coronavirus 2019, or in short, it is called COVID19, which is caused by the deadly acute respiratory syndrome coronavirus2 or SARS-CoV-2.

As a result, on 30 January 2020, the World Health Organization (WHO) declared a public health emergency of international concern and a pandemic on 11 March 2020. As of 16 April 2022, the pandemic has caused more than 502 million cases and 6.19 million<sup>6</sup> deaths worldwide, with a case fatality rate (CFR)<sup>7</sup> of 1.2%, making it one of the deadliest in history. So far, 11.2 billion Doses have been vaccinated worldwide, with 70.54% of the world's population receiving at least one dose of the Covid-19 vaccine.

$$CFR(\%) = \frac{\text{Number of deaths from disease}}{\text{Number of diagnosed of disease}} \times 100$$

Owing to the infectious nature of COVID19, most countries declared a lockdown. On the other hand, this virus also spreads in Bangladesh. As a result,

<sup>4</sup> <https://www.worldbank.org/en/news/feature/2020/04/02/the-world-bank-group-moves-quickly-to-help-countries-respond-to-covid-19> It is deploying up to \$160 billion in financial support, \$55 billion of which will be for Africa, over the next 15 months to help countries protect the poor and vulnerable, support businesses, and bolster economic recovery.

<sup>5</sup> case fatality rate

<sup>6</sup> Data source: <https://coronavirus.jhu.edu/data/mortality> or Johns Hopkins University (JHU)/dated:16 Apr.2022

<sup>7</sup> Formula source: <https://ourworldindata.org> and this formula has used for analysis

to protect the population, the government announced a “lockdown” across the country from 23 March 2020 to 30 May 2020. It took some necessary steps to spread awareness to keep them away from the virus pandemic. But infections were low from late March 2020 to May 2021 but continued to increase from March 2021 and; a steep increase was seen in July-August 2021.

Then there was a step-by-step lockdown a few times, which has particularly damaged the economy. However, from January/February 2021 to till now, the Bangladesh government has been taking concrete measures to vaccinate people across the country, which has reduced the number of contagious deaths.

As of 16 April 2022, Bangladesh announced 1,952,162 total confirmed cases and 29,124 deaths, thus a mortality rate of 1.5%. Moreover, 0.25 billion doses have been inoculated in Bangladesh, with 70.54% of the country’s population receiving at least one dose of the Covid19 vaccine. These vaccines, Oxford AstraZeneca, Pfizer BioNTech, Moderna, Sinopharm BIBP or Sinovac, are significant. 68.6% are fully vaccinated; also, 6.5% have received booster doses.

Not only has the novel coronavirus outbreak caused human deaths worldwide, but it has also affected health, medical care, and healthcare capacity. It has also significantly impacted food-agriculture, economy-workforce, globalisation, tourism, education, religion, transportation (road, railway, air and waterway), etc. In addition, the virus outbreak has a devastating effect on aviation. As a result, in February 2020, the capacity of International air passengers decreased by 8%. By 30 March 2020, the capacity of passengers decreased by 33%, namely 411 million passengers reduced, at a potential loss of USD 90 billion<sup>8</sup> in revenue from air traffic, and a large number of employees has jobless in the aviation industry. Furthermore, COVID19 has led to a global humanitarian catastrophe.

The Covid-19 coronavirus pandemic has affected all aspects of forceful and social life intensity. Public transport mode has been restricted due to government restrictions and scare of virus transmission. The transport sector, including roads, aviation, railways and water traffic, has been deadly affected. Passenger and freight transport has also been severely affected due to the complex supply and demand system for COVID19.

This time of COVID19 and the implemented lockdown system have affected the uncertainty regarding economic growth. Global growth uncertainty<sup>9</sup> in 2020 was expected to decrease to 3% and 6.3% for a developed economy. Besides, Bangladesh’s GDP fell from 8.15 (2019) to 2-3% (see the table1 and figure1). The supply chain system collapsed around the world. Low- and middle-income countries with poorly developed health systems face more significant challenges and risks in controlling Covid-19 than high-income countries.

<sup>8</sup> Effects of Novel Coronavirus (COVID-19) on Civil Aviation: Economic Impact Analysis- Montréal, Canada 2 April 2020

<sup>9</sup> the global growth forecast by the International Monetary Fund (IMF) in 2020

## 2. Objective

The purpose of this article is to illustrate the devastating effect of the deadly virus, such as the COVID19 virus on people's food, health-healthcare, medicine, travel and business, employment, social activities, education, as well as global trade and economy around the world, and the real struggle for life and livelihood.

## 3. Economic Crisis for the Novel Coronavirus and the Great Lockdown

### 3.1 The economic growth crashing scenarios due to coronavirus pandemic

According to WB 2020 data, it has been forecasted that the economic growth will slump in each of the region's eight countries due to COVID-19.

And Bangladesh's economy will be expressively squeezed by the COVID-19 pandemic. The national economy will decline due to the reduction of global demand, such as in the RMG sector. Therefore, it will create unemployment, deep poverty, starvation, suicide and corruption. In FY 2018/19, Bangladesh achieved 8.15% growth.

According to the World Bank data, GDP growth is projected for Bangladesh at 2 to 3 per cent in the current fiscal year (2019/20). It also said Bangladesh's economy would grow 1.2 to 2.9 % in the following FY 2020/21 and 2.8 to 3.9% in the FY 2021/22. It further expressed that Bangladesh will face a more prolonged recession (see Table 1 and Figure 1).

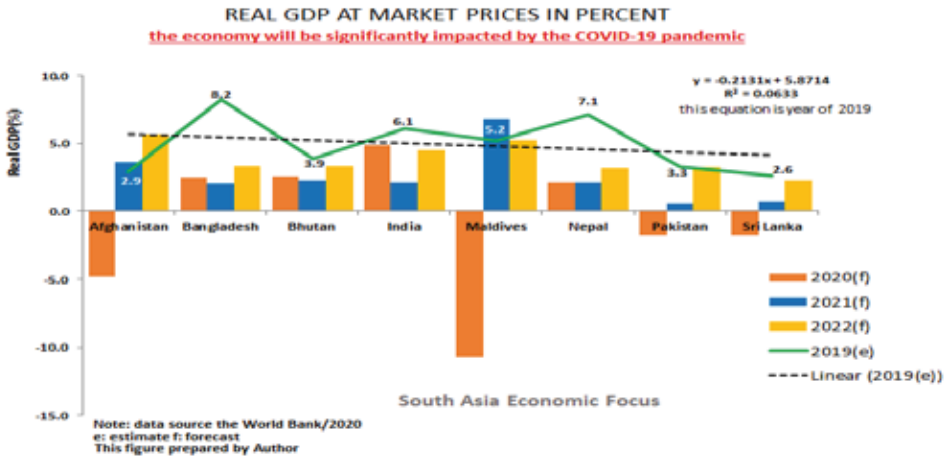
*Table 1: South Asia Economic Focus (%) with growth crashing in this FY year*

Country	2019 (e)	2020 (f) to 2020 (f)	2021(f) to 2021(f)	2022 (f) to 2022 (f)
<b>Bangladesh</b>	8.2	2.0 to 3.0	1.2 to 2.9	2.8 to 3.9
<b>Afghanistan</b>	2.9	-5.9 to -3.8	3.3 to 3.9	5.2 to 6.2
<b>Bhutan</b>	3.9	2.2 to 2.9	2.0 to 2.5	3.1 to 3.5
<b>India</b>	6.1	4.8 to 5.0	1.5 to 2.8	4.0 to 5.0
<b>Maldives</b>	5.2	-13.0 to -8.5	6.3 to 7.3	5.0 to 5.5
<b>Nepal</b>	7.1	1.5 to 2.8	1.4 to 2.9	2.7 to 3.6
<b>Pakistan</b>	3.3	-2.2 to -1.3	0.3 to 0.9	3.2 to 3.3
<b>Sri Lanka</b>	2.6	-3.0 to -0.5	0.2 to 1.2	2.0 to 2.5

**Notes:** The 2020 and 2021 numbers represent the lower and upper bounds of the forecast range. For India, 2020 refers to FY19/20. e: Estimate f: Forecast.

**Data source:** World Bank/2020

Figure 2: South Asia’s economy significantly impacted by the COVID-19 pandemic



Moreover, overall output massive loss around the world. The economy and human beings are closely related. Now, the doctors have a front line for service for suffering people by COVID-19, so the farmers should start agriculture output for food supply for humanity. And food output is a basic need for the survival of human beings. So, we can begin economic activities again. According to IMF World Economic Outlook, the worse economic recession has been caused by the ‘Great Lockdown’. In this circumstance, it has been creating a global economic and financial crisis. Also, in April 2020, the global GDP will fall to -3%, a reduction of 6.3% points from January 2020 (see Table 2, Figures 2 and 3).

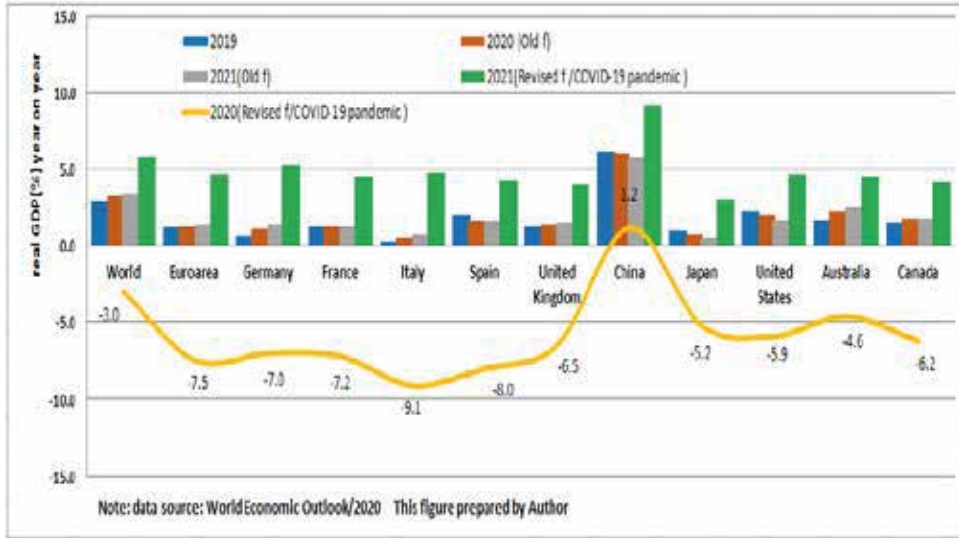
Table 2: Global Economic growth projection (%) with growth crashing in this FY year (2020)

	2019	2020 (Old f)	2021 (Old f)	2020(Revised f/ COVID19 pandemic)	2021(Revised f/ COVID19 pandemic)
World	2.9	3.3	3.4	-3.0	5.8
Euro area	1.2	1.3	1.4	-7.5	4.7
Germany	0.6	1.1	1.4	-7.0	5.2
France	1.3	1.3	1.3	-7.2	4.5
Italy	0.2	0.5	0.7	-9.1	4.8
Spain	2.0	1.6	1.6	-8.0	4.3
United Kingdom	1.3	1.4	1.5	-6.5	4.0
China	6.1	6.0	5.8	1.2	9.2
Japan	1.0	0.7	0.5	-5.2	3.0
United States	2.3	2.0	1.7	-5.9	4.7
Australia	1.7	2.3	2.6	-4.6	4.5
Canada	1.5	1.8	1.8	-6.2	4.2

Note: f: Forecast

Data source: World Economic Outlook

Figure 2: Globally, the economic growth slump scenario due to coronavirus pandemic



According to the IMF Outlook data, GDP growth is projected for a world negative (-) 3% decline in the current fiscal year (2019/20). But the global economy will grow 5.8% in the succeeding FY 2020/21. And in the Euro area, GDP growth is projected for a world negative (-) 7.5% decline in the current fiscal year (2019/20). But the Euro area economy will grow 4.7% in FY 2020/21. On the other hand, in China, after slumping to 1.2% growth this year (FY 2019/20), provided the pandemic disappears in the second half of this year and economic activities return to normal, as well as the Chinese economy will see a big jump next year (FY 2020/21) with a record growth of 9.2%.

### 3.2 Economic growth and fluctuations

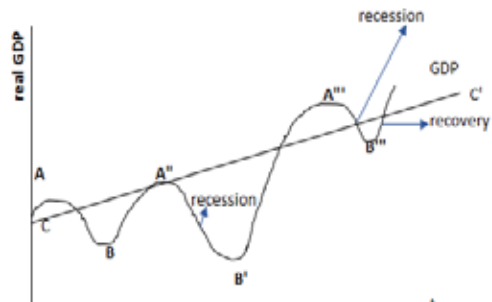
The world economy performs fluctuations in the level of macroeconomic activity. At times, macroeconomic variables such as income, consumption, investment, employment, output, etc., rise and at other times, these vice versa. From this figure, CC' is the economic growth trend line. This fluctuation in macroeconomic variables is called 'business/trade cycles'. The capitalistic economy reveals exchange periods of boom and depression. So, the cyclical fluctuations are somewhat regular and steady but not random. These cycles as the short-term movements in GNP<sup>10</sup>. According to Keynesian theory (the general theory 1936), "A trade cycle is composed of periods of good trade characterised by rising prices and low unemployment percentages, alternating with periods of bad trade characterised by falling prices and high unemployment percentages." On the other hand, Wesley Mitchell said there are four phases in this cycle which are as below-

<sup>10</sup> Gross national product

Figure 3: Economic growth trend line<sup>11</sup>

1. boom/peak
2. recession
3. depression/ trough
4. recovery/ revival

here  $CC'$  = growth trend line,  
 $B, B''$  and  $B'''$  = trough/depression,  
 $A''$  and  $A'''$  = peak/boom.



The world economic activities have been recession stage due to the worst COVID-19 pandemic. Therefore, they need recovery. Now the question, how does recovery starts from this recession and trough ( $B'''$ )? This upward growth trend line ( $CC'$ ) has shown ups-and-downs movements in GDP.

Actually like, depression or boom can never be long-lasting. Also, like the boom and depression, the recession is another phase of this cycle. The boom crashes, and a recession begins when the economy reaches a boom point of activity and ends when it reaches its trough or depression. The economy grows between recession and boom. A recession is a substantial decline in economic activity spread across the economy lasting more than a few months. It usually is visible in global macroeconomic indicators such as output, employment, real income and other indications. This global recession has been due to the worst pandemic after World War II.

Moreover, according to IMF data in April 2020, the real GDP is declining at an annual rate of 3% in April 2020. These forecasts represent significant downward revisions in the above Tables and Figures 1-3. Consequently, globally, the unemployment rate has been rising, the trade deficit increasing significantly, and the global GDP has been declining. Whether we follow the Wesley Mitchell or Keynesian model, we must take careful steps to ensure transparency. It is true that in the short-run period, the interest rate is stable.

Moreover, it is possible to reduce interest rates but not necessarily reduce them due to “liquidity traps”. According to Keynes, the business cycle is caused by variations in the rate of investment caused by fluctuations in the Marginal Efficiency of Capita (MEC). And these cycles are periodic fluctuations of employment, income and output. However, the reserves required to replace capital goods are exhausted in the recession. During this period, Interest rates may also be lower because the amount of liquidity money kept in the commercial bank is idle. Therefore, an investor can obtain a loan quickly from the bank. And the opportunity for investment demand will increase due to consumer demand stability. As a result, the chance of recovery will be created from the recession due to the coronavirus pandemic.

<sup>11</sup> This figure prepared by Author



In Bangladesh, there are 168 million people<sup>12</sup>, and the number of deaths due to coronavirus is much lower in Europe, America and neighbouring India. So lockdown should not be increased in Bangladesh. We are again in favour of an open economy. And we must follow WHO guidelines to protect ourselves in the pursuit of life and livelihood. We should use masks and get vaccinated. The country should participate in various economic activities. Exposure to the virus will produce antibodies in humans. It is how the virus will be defeated.

### **3.3 Lives vs Livelihoods**

During the COVID-19 pandemic, the reality of being isolated has had a massive impact on people's lives and livelihoods worldwide. The enormous worse effect on the macro and micro economics of the COVID-19 pandemic, therefore, has questioned lives or livelihood (see Figure 5). And for this reason, there are several middle and low-income countries, such as India, Bangladesh, Brazil, Russia, and South Africa, that are easing lockdown even though cases of infection by the COVID19 pandemic are still rising. An article reports that more than 85% of wetlands were destroyed, more than a third of all land was dedicated, and almost 75% of available freshwater to crops and livestock production for this pandemic. Also, Bangladesh is now suffering a steeper rise in COVID-19 cases. New infections have increased by more than 42,000 in a couple of weeks. Even if the country reported 709 deaths related to COVID-19, the actual number would be higher as all suspected patients were not tested due to limited capacity. It is also vital to balance a healthy population and economic growth. Because health and economic prosperity are directly related; therefore, there is not possible to choices for a person either "health issue" or "food" for self or their family even starve children". Of course, we are all going through a massively complex situation. Also, it is a very tough situation for poor elderly widows, the rickshaw-puller who no longer has passengers, ready-made garment labours, and construction labour. In these circumstances, we need a balance between "food and health" for lives vs livelihoods.

In the face of the Covid-19 pandemic, social distancing has been universally accepted and is the most effective solution. Consequently, the government declared public holidays to prevent the spread of the disease, which holidays were extended in several steps. But millions of families depend on daily wages for their livelihood and are trying to survive. For this reason, the economy should be reopened in the face of harsh realities. But if we want to make lockdown easier, we must follow WHO guidelines and wear masks when we go out.

So, reopen the economy, and open the World. Now in 2020 and all of the world has been back to 700 years. It could not be a reality, but it is reality! "stay at home" is not an actual solution for surviving humanity. According to United Nations World Population Predictions 2019, the current world population is 7.9 billion as of December 2020. Around half of humankind, 4.5 billion people, have

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<sup>12</sup> Data source: IMF/Apr 15,2022

been confined to their homes under lockdown. We should as soon return to business and as soon as reopen the economy for prosper.

This lockdown and social distancing would create selfishness, suicides, mental depression, poverty, starvation, and homicide. Also, it emphasises that widespread great lockdown could be creating industry-firm bankruptcies, unprecedented unemployment, poor will be poorer, and as a consequence, economic depressions and recession.

Presently, the world is blocked because of Corona. Day by day, the death rate is on the rise. The supply chain has collapsed; the wheel of the economy has stagnant. Also, air-water-land transport communication was closed. All in all, human life has come to a stale worldwide in extreme uncertainty. The current situation in the world economy has worsened due to this pandemic.

For this reason, many countries, including Europe, America, Canada, Japan, and South Korea, have made the lockdown easy. Has revived the economy for life and livelihood. In addition, the governments of those countries have undertaken various schemes with financial benefits to multiple institutions and people.

For this reason, many countries, including Europe, America, Canada, Japan, and South Korea, have made the lockdown easy. Has revived the economy for life and livelihood. In addition, the governments of those countries have undertaken various schemes with financial benefits to multiple institutions and people.

Like other countries, Bangladesh's economy has been taken a blow by the Covid19 pandemic. For this reason, the Prime Minister of Bangladesh unveils a new stimulus package of BDT 727,500<sup>13</sup> million to overcome the likely economic impact on the country due to the outbreak of the novel coronavirus, which is nearly 2.86% of GDP. The first of the four packages, BDT 300,000 million, will be provided to affected industries and service sector organisations through banks as low-interest loans. The second of these packages, BDT 200,000 million, will be provided to affected small and medium enterprises (SMEs), including cottage industries, as a low-interest loan. The third package, Bangladesh Bank's Export Development Fund (EDF), will be increased from USD 3.5 billion to USD 5 billion to facilitate raw material imports under back-to-back letters of credit (LC). The Prime Minister said that this package would add USD1.5 billion to the EDF while its interest rate would be less than 2%. Under the fourth package, the Bangladesh bank will introduce a new credit facility of BDT 50,000 million as a "Pre-shipment Credit Refinance Scheme", and its interest would be 7 per cent.

### **3.1 Adverse humanitarian scenario due to coronavirus pandemic**

The crisis could lead to new growth in the rural areas of the poor, low-middle income families to the poorest of the poor, and the rise of social chaos such as murder, suicide, hijack, and harassment. After all, if we fall into an unexpectedly deep crisis, our humanity can plunge to the bottom of the black hole!

<sup>13</sup> Source: The Daily Star (5 April 2020) news/ <https://www.thedailystar.net/coronavirus-deadly-new-threat/news/combating-coronavirus-pm-announces-tk-727cr-stimulus-package-1889764>.

• **The scenario for social distancing and COVID19 disease**

1. in Bangladesh, neighbours have stopped burial at the family graveyard after their death
2. if relatives, friends' colleagues and others have died of COVID-19 or other illnesses, there is not possible to attend their funeral
3. in Bangladesh, homeowners and neighbours are abusing with coronavirus infected people and their families, even house owner has to evict to people infected with the coronavirus
4. also, some doctors and nurses are facing abuse of homeowners in the capital Dhaka. It is alleged that some house owner is forcing them to leave their homes because they are giving service to coronavirus-affected people.
5. poor are having poorer
6. those who have more money are buying more food and accumulating food
7. the COVID-19 has severely disrupted individuals, families, societies and the state. Everyday life has changed drastically. Like other countries in the world, Bangladesh is under unprecedented pressure
8. in this catastrophic situation; in some cases, people are desperate to fear
9. suspicion of having coronas, and children have thrown their mothers into the forest
10. in Bangladesh, an ambulance driver left a dying patient on the street.
11. in the capital Dhaka Bangladesh, a woman with chronic kidney disease died. But the neighbours, locals, relatives and relatives suspected that she had been infected with coronavirus and went to the house for burial. His two sons sat with his mother's body for the day but did not get any help. Later, with the help of police, the boys buried their mother
12. the victims of COVID were declared guilty and, like zoo animals as have been behaviour with other family members. The neighbours made them almost alone.

To sum up, nothing could be more inhuman than throwing mother into the woods. Abraham Lincoln said, - "No man is poor with a Godly mother."

The reality, GOD, is justice, and human is injustice! Abraham Lincoln said- "My concern is not whether God is on our side; my greatest concern is to be on God's side, for God is always right."

Infections and death by COVID19 are increasing daily worldwide. In this situation, there is a risk of growing fear and selfishness. Right now, there is needed courage and sympathy. Needs friend's hand, honest neighbour's help. Government, political leaders, religious leaders, teachers and locally accepted people should also come forward in this task. In this circumstance, people have to understand what is wrong. It is essential to explain why it is wrong.

The coronavirus affects the rich and the poor. Many may be starving or starving during the ongoing tragedy in the world. We should know how the people

of these communities are living in the lockdown going on in the countries around the world.

Many other socially backward, marginalised and isolated communities need help right now. Among them are the handicapped, disabled, the washer, the weaver, the tailor, the butcher, the barber, the cobbler and many others. Besides, forgetting those begging on the road and staying on the road will not be correct. In addition, people of small ethnic groups, especially farmers, day labourers, railway workers and those living in slums, should pay special attention to the government.

Also, many homeless people are being put in shelters, but nobody even acknowledges the existence of sex workers. According to BBC news 19 April 2020, there is a considerable number of sex workers around the world, and in most of the countries of the world, especially developing and least developing countries, the financial situation of sex workers is made worse because sex workers often have no savings. Now, there is no liquid cash due to the lockdown for the coronavirus pandemic, so they are afraid to survive without liquid money. There are many numbers of the third gender or third sex people in the world. Like the sex workers floating in the crisis in the world, they are desperate. Because they earn a living by collecting donations and alms from people from different markets and streets. So, the UN, WB, IMF, EU, ADB, NGO and government should take a financial step for these floating people.

According to UNESCO (in mid-April 2020), 192 countries have closed all schools and universities of pre-primary, lower-secondary, and upper-secondary levels of education. Around 1.6 billion students, namely 80% of the world's students, are now being kept out of educational institutions by country-wide closures, which will negatively impact the students, especially the most vulnerable students. Many children do not have the opportunity to study at home and lack food and medical treatment. Their parents may force them to work as a financial burden on the family. In that case, many children will drop out of school. In many countries like Bangladesh, children will be deprived of education, and early marriage will occur.

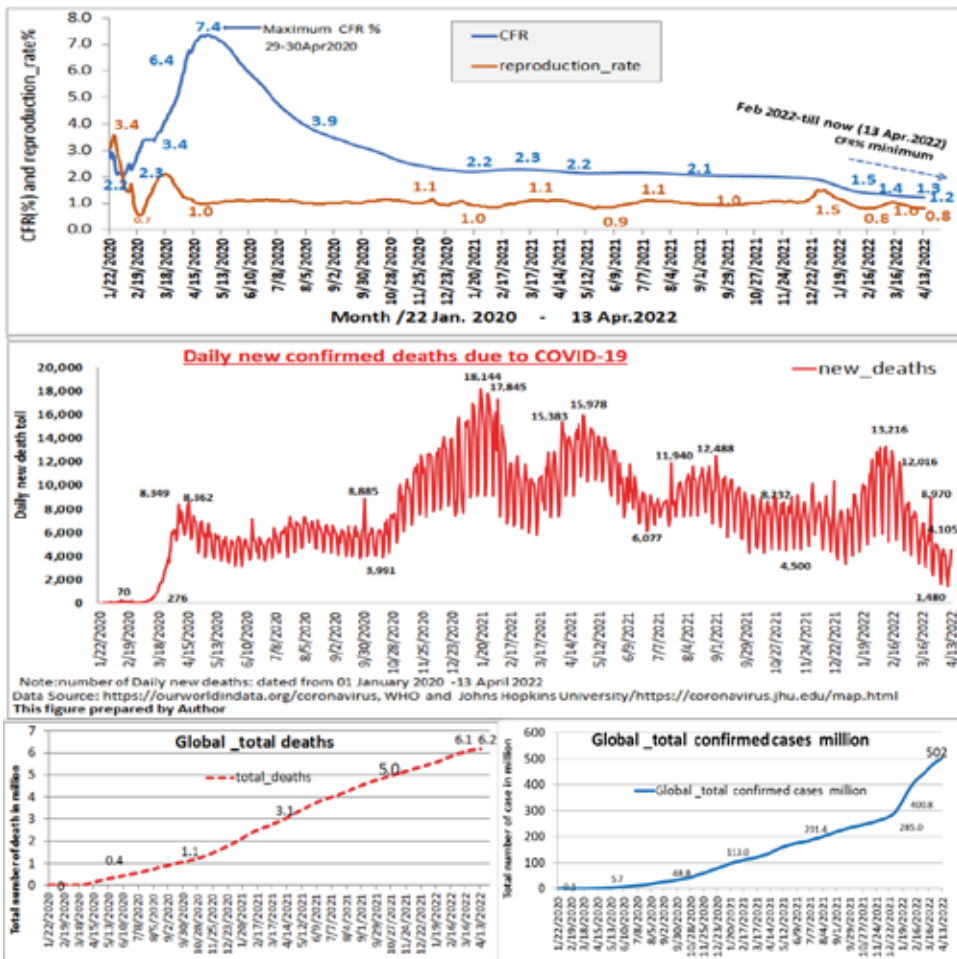
On 2 June 2020, the coronavirus outbreak globally confirmed cases of 6.31 million<sup>14</sup>, a death toll of 0.38 million and recovered 2.72 million people. The case fatality rate (CFR) was 6.0%. And in the USA, there is a total number of confirmed cases of 1.81 million, a death toll of 0.105 million and recovered 0.46 million people and a CFR of 5.8% (less than earlier). In Brazil, the total confirmed cases were 0.53 million, the death toll was 29,937 people and recovered 211,080 people, and CFR was 5.7%. In Spain, the total confirmed case was 0.24 million, the death toll was 27,127 and recovered 150,376 people, and CFR was 11.3%. In Italy, the total confirmed cases were 0.23 million, the death toll was 33,475 people and recovered 158,355 people, and CFR was 14.4%. In France, the total

<sup>14</sup> <https://coronavirus.jhu.edu/map.html> COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU) dated 2 June 2020

confirmed case was 0.19 million, the death toll was 28,836 people and recovered 68,558 people, and CFR was 15.2%. In the UK, the total confirmed cases were 0.28 million, the death toll was 39,127 people and recovered 1,221 people, and CFR was 14.1%.

At the same time (2 June 2020) in Bangladesh, the number of deaths due to coronavirus was much less. And in Bangladesh, the total confirmed case was 52,445 people, the death toll was 709 and recovered by 11,120 people, and CFR was 1.4%.

Figure 4: Estimated case fatality rate CFR (%), confirmed case and death tolls due to coronavirus

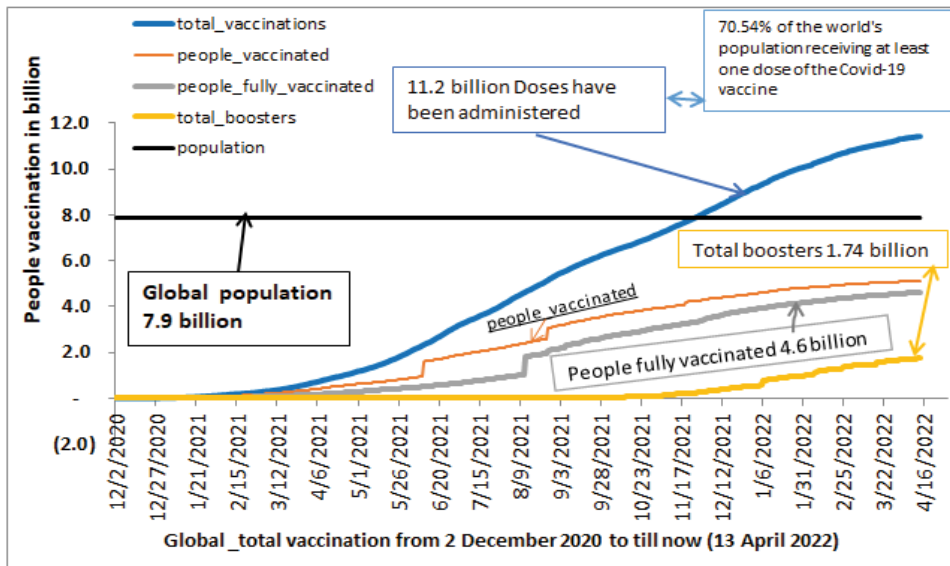


(Recalculation and prepared by Author)

Data Source: WHO/ <https://ourworldindata.org/coronavirus> and CFR formula from WHO



Figure 5: Global Coronavirus (COVID-19) Vaccinations scenario



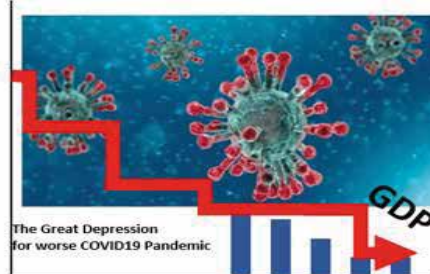
(Recalculation and prepared by Author)

**Data Source:** WHO/ <https://ourworldindata.org/coronavirus>, CFR formula from WHO, Johns Hopkins University/<https://coronavirus.jhu.edu/map.html> and population data IMF/2022

Figure 6: Combat between Lives vs livelihoods due to virus



Pic.Source: The New Indian Express, 28/05/20



Picture: Global economy downfall, by Author

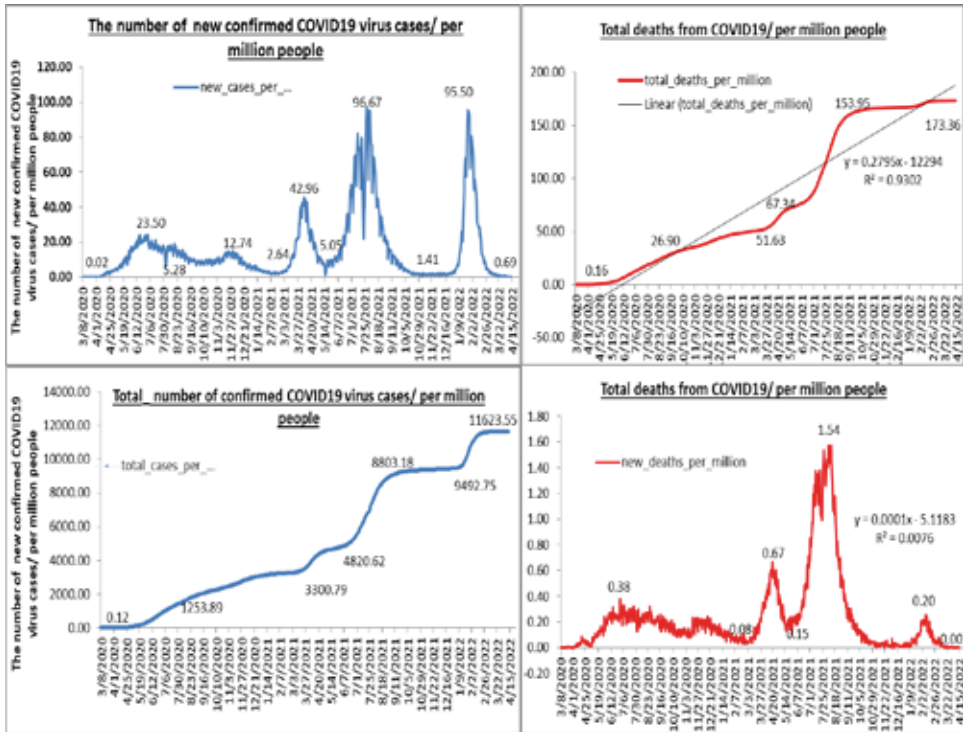


Pic.Source: <https://asiatimes.com/2020/05/life-vs-livelihood-debate-rages-in-virus-hit-india/>



Pic.Source: The Daily Star, May 17, 2020

Figure 7: COVID19 situation in Bangladesh



Data source: 1. <https://ourworldindata.org/COVID19-vaccinations>

2. Johns Hopkins University/<https://coronavirus.jhu.edu/map.html>

3. Economic and Population data /IMF outlook and Land data, BBS Statistical Yearbook Bangladesh 2020/40<sup>th</sup> edition

Recalculation and figure prepared by Author

#### 4. Findings

- Many people have lost their jobs and sources of income lost in business. They have a negative impact on import-export, leading to rising unemployment and poverty in both urban and rural areas across the country. As a result, the country’s economy has suffered, and GDP has shrunk
- Globally economy has lost due to the pandemic; although Bangladesh is also in the same situation, some steps have been taken by the Bangladesh government to minimise the economic problem
- During the COVID-19 pandemic, social catastrophe was created among the people, which is inhumane and indescribable
- During pandemics and massive lockdowns, the political, religious and social impact on the community create a humanitarian disaster
- According to April 2022 report, in Bangladesh total confirmed cases are 1.9

million and 29,124 deaths, thus a mortality rate of 1.5%

- By vital steps of the Bangladesh government, there have 0.25 billion doses have been vaccinated in Bangladesh, with 70.54% of the country's population receiving at least one dose of the Covid19 vaccine and 68.6% are fully vaccinated; also, 6.5% have received booster doses.

## 5. Conclusion

This article presents that the global human community and their lifestyles, social and economic activities and public health challenges are at high risk due to the rapid spread of the existing COVID-19 pandemic.

Given the devastating effects of this COVID19 virus infection on human society, it is pertinent to introduce a multidisciplinary framework of service delivery and integrated health care approaches for proper preparation, response, management and mitigation of health challenges. The pandemic has not only affected the people living at home, but it has also had a profound social, academic, economic and psychological impact on the underprivileged and obsolete, the rich-poor and people of all walks of life.

Millions of families depend on daily wages for their livelihood and struggle to survive. Besides, the economy has to be kept alive in the face of reality. That is why we must follow the guidelines of WHO and wear a mask when going out without going into lockdown. We need to get vaccinated to keep our families and our country safe. We do not know when the pandemic will end.

Moreover, the pandemic has placed an unprecedented burden on the global economy, healthcare and globalisation through frequently travel-event cancellations, employment workers, food chains, academia and healthcare capabilities that need to be normalised through the overall efforts of all to revive the economy. Hopefully, no one anywhere in the world will be hungry or neglected. And the world will go back to a "New Normal".



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# Impact of COVID-19 Pandemic on Human Development- the Case of Bangladesh

Rafiqul Islam Talukder\*

## Abstract

*World Community first-ever observes devastating face of COVID-19. In this context, the Bangladesh Economic Association initiative to invite Papers on “Impact of COVID-19 on Human Development” and organise 02 days conference is the demand of the time. This paper demonstrates a thorough study and analysis of COVID-19 impact on society, nation, and human capital, enabling our policymakers to set the forward path to building a prosperous Bangladesh. The article follows the guideline set by Bangladesh Economic Association. This article’s data and information have been taken from the author’s experience, different internet sources, IEB journals, sharing with stakeholders of various capacities, and interviewing COVID patients. The article concludes that the economic loss and impact on livelihoods are immeasurable. It suggests bringing 100% eligible population under vaccination, adhering to Virtual Media and making it available to marginalised people for education, and organising an online training course to address human development.*

**Keywords** COVID-19 · Economic development · Social development · Human development

## 1. Objective

World Community first-ever observes devastating face of COVID-19. It impacts every facet of our lives and livelihood demands thread bear study and analysis. Otherwise, we cannot find the direction of the ocean’s shore and get the strategy to reach there. In this context, the Bangladesh Economic Association initiative to invite Papers on “Impact of COVID-19 on Human Development” and organise 02 days conference is the demand of the time. This paper demonstrates a thorough study and analysis of COVID-19 impact on society, nation, and human capital,

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enabling our policymakers to set the forward path to building a prosperous Bangladesh.

## **2. Methodology**

The methodology of this article follows the guideline set by Bangladesh Economic Association. This article's data and information have been taken from the author's experience, different internet sources, IEB journals, sharing with stakeholders of various capacities, and interviewing COVID patients.

## **3. COVID-19 Pandemic and Macroeconomy**

Bangladesh has emerged as a vibrant economy in South Asia. It sustains a positive growth rate amidst COVID-19 hit, and the current fiscal year records more than a 5% growth rate, the highest in South Asia, where most developing and developed countries record a negative growth rate. Bangladesh's position is next to China in South Asia, ASEAN, and the Pacific region.

Bangladesh is one of the top ten remittance recipient countries globally, and our position is 8<sup>th</sup> in a row. As per the Bangladesh Bank report, Remittance inflows hit a record high of \$24.77 billion in the just-concluded fiscal year 2020-21, thanks to the expatriate Bangladeshis for sending money amid the Covid-19 pandemic. Remittance inflow to Bangladesh accounted for 6.6% of GDP in 2020.

Expatriate Bangladeshis sent 36% more remittances in fiscal 2020-21 compared to the same period in the previous fiscal year, recording the highest growth rate in South Asia. No doubt, a 2% cash incentive accelerates this growth. NRB is encouraged to send remittances through the banking channel, thanks to Finance Minister. Remittance Growth will multiply in the coming days subject to Government support in the below areas in favour of our NRB:

1. Increase in cash incentive from 2% to 5% same as exporters enjoy
2. Opportunity to invest remittance in productive sector in Bangladesh,
3. Accessible medical facility for NRB and subsidised for dependents in Government hospitals
4. Utilise retired NRB experience in-country development
5. Government administrative support to family members living home country
6. City Corporation tax holiday for NRB living in City Corporation area
7. Government Job quota for NRB Family members as per qualification
8. NID card to be issued to NRB from Embassy
9. Priority in Admission for NRB Children in education
10. Passport validity for ten years yet to implement
11. Develop more skilled technicians and trained human resources targeting the country
12. Negotiate with UAE Government to open up employment visas for all emirates.

Bangladesh enjoys a healthy foreign currency reserve with a satisfactory remittance figure and the Garments sector contribution. It is a matter of satisfaction that we are providing foreign currency support to South Asian Neighbourhood-Sri Lanka from our reserve, which was widely applauded abroad.

#### **4. COVID-19 and Human Healthy Longevity**

##### **(Mortality, Morbidity, various Health Issues of Human Capital)**

Human health has been threatened, no doubt, due to COVID-19. Worldometer gives us live data on illness mortality and recovery. The mortality rate is feared to be high in Bangladesh, per people's perception. It is a matter of complacency that the vast majority of poor people working in the informal sector remain uninfected or asymptomatic, lowering the percentage of infection and mortality that gives us a comfortable edge in front of the world community. It is widely believed that they have strong immune power, entire lung and vitamin enrichment but a potential contributor to infecting close contact having less immune power. However, it demands research to ascertain the fact of people's perceptions.

Morbidity is not at a level of concern, but it prevails. If we look around, we can see some of the patients recovered from COVID-19, reported to have sustained post-COVID complicacy, yet returned to everyday life. PACE hospital states," As per recent data of SARS-CoV-2 survivors, 30-40% of those who had secondary infections, survivors of acute COVID-19 may be at increased risk of infections with bacterial, fungal infections or infections other complications. However, these secondary infections do not explain a previous infection's persistent and prolonged consequences in post-acute COVID-19. Still, researchers are trying to understand why the symptoms last for an extended period in a patient post-recovery. Some common signs and symptoms observed post-recovery that includes:

- Body pain, joint pain or headache
- High blood sugar (hyperglycaemia)
- Fever
- Feelings of tiredness or lack of energy
- Loss of taste or smell
- Shortness of breath or difficulty breathing
- Coughing or Chest pain
- Inability to focus or difficulty thinking, or lack of mental clarity (brain fog)
- Rapid or fast heartbeat (heart palpitations)
- Anxiety disorder or depression
- Dizziness or lightheaded when standing up from sitting or lying down (orthostatic hypotension)
- Red bumps or rash on a flat, red patch of skin
- Symptoms that get worse after mental or physical activities."

Undeniably, human capital is exhausted by COVID-19. An organisation must

run emergency services like power generation, water supply, oxygen generation and supply, hospital/ ICU service, gas distribution, internet service, and seaport / airport. Few of many must be kept on running round the clock without interruption. *“A room 15 ft x 20 ft in size housed 12 people. Beds are arranged in a row on the floor, removing the table and chair. No bath arrangement in the toilet. Engr. Nazir Hossain passed 66 days in this tight-fit environment. He had to work day and night to provide uninterrupted internet service and other colleagues with life risk.”* Ref.: *Engine of Bangladesh –The Engineers.*

Our front liners took it as a challenge staying at the workplace in hardship over the months without family. They ensured uninterrupted emergency commodity supply round the clock at consumers’ doorstep.

## **5. COVID-19 and Human Knowledge (Education, Training, Skill Development, Other Education-related Issues of Human Capital)**

Human knowledge puts under significant hurdles. The moment this article is penned finds tens of millions of school, college, and university students worldwide confined fully or partially in-home resulting in the loss of innumerable academic hours. They are all supposed to pass the busy time with faculty members and co-students, concentrating the academic curriculum and extra-curricular activities in the respective institute. However, the world education sectors re-shaped with the emergence of the virtual platform by this time and trying to recover the academic loss. It is indeed an irreparable loss, very hard to recover. Last year we observed auto-promotion in secondary and higher secondary levels; this year, it will happen partially. It has an adverse long-term effect on human resources (both talent and human factor). Our future generation grows up with knowledge gaps and frustrations, without socialisation impeding forming a harmonious society. Knowledge-based society may put at stake in future. Government and NGOs should address this issue on priority. How to recover this human and knowledge gap in the community? It is emergent to have research to know the impact in this sector.

Some countries picked up virtual platforms late, even entered, entered partially. Bangladesh has some success in this sector but has yet to cover all stakeholders. Skill development shows lagging in our country. Our contribution is less than demand in the Middle East market regarding skill workforce supply to the Middle East market. They rely on India vastly for a skilled workforce. Our remittance can be boosted if we can line up our skilled workforce. The development of professional human resources is interrupted due to COVID-19. Utmost effort is emergent from the concerned institute for recovery.

## **6. COVID-19 and Real Income**

### **(Production, Distribution, Changes in the Determinants)**

Real income hampers drastically from trim to a significant business level. As for the middle east countries, the aviation sector encountered lots of uncertainty due to international flight suspension for more than a year during the pandemic. Market demand for aviation fuel went down, and thus aviation fuel from refinery plants remained unsold, resulting in inventory build-up. Plant Operator suffers liquidity problems, forcing them to switch to another grade or curve their production due to market fragility. The company incurs a loss and takes mitigation measures for survival.

About the livestock sector, these have included: (i) local and international movements of live animals and animal products; (ii) supplies of raw materials for feed and medicine; (iii) provision of other production inputs and equipment; (iv) access to labour and professional services (Food Agriculture Organization, 2020a).

In many countries, the closure of schools, restaurants, shops and markets, public gatherings, and travel limitations have reduced demand for animal products (In Europa; Marchant-Forde and Boyle, 2020). Infections among workers and subsequent closure of slaughterhouses and food processing plant has reduced slaughtering and processing throughput (Good, 2020). These factors resulted in the overstocking or culling of animals and animal products (Huffstutter, 2020), with farmers depopulating their farms to reduce the costs of maintaining animal populations which they could neither feed nor trade (Barrett, 2020). Inevitably, this affected poultry production and trade (Mulder, 2020).

The impact on the Bangladesh poultry sector was devastating. Poultry production is the primary livestock sector in Bangladesh, providing an essential component of food security and contributing to the country's economic development. Over 8.5 million people are employed in this sector, the second-most important source of employment after the garments industry (Hossain, 2020). Poultry accounts for 37% of the country's total meat production and 22–27% of the animal protein supply and forms a substantial fraction of the livestock sector's 1.4 % contribution to the country's GDP (DLS: Department of Livestock Services, 2020). Risks associated with the market, such as value chain fragmentation, high intermediation costs, and no or lack of traceability, all impede the distribution of poultry and poultry products (MoFood-Ministry of Food, 2020). Fluctuating prices is also a concern. Changes in supply and demand cause chicken and egg prices to change regularly, sometimes beyond the reach of many consumers and sometimes so severely that farmers suffer financially. Moreover, the insufficient coordination between the country's public-private and research institutions and inadequate government oversight of the poultry sector is hampering this sector's development (Hamid et al., 2017). Despite these challenges, COVID-19 still presented a new and extreme challenge to the sector, introducing new problems and exacerbating some of these existing ones.

Fishers of Haor areas used to sell their fish to the Dhaka market. They strived hard to access the market due to multiple impediments during COVID-19. Even though they could access it, the market was dull due to a demand downturn. Similarly, the Hilsha market depends on demand, distribution options, government restrictions on fishing, COVID-19 lockdown enactment, and natural calamity; all are essential determinants in market dynamics.

## **7. COVID-19 and Production and Distribution of *MATERIAL* Goods and Services**

The supply chain comes across multiple hypotheses and finds it difficult to line up during a pandemic. Many businesses can mobilise rapidly and set up crisis-management mechanisms. Supply chain leaders prepare for the medium and long-term initiatives and build resilience. Middle East countries mainly depend on sub-continent labour force for petrochemical and refinery industries maintenance. It is reported to have rescheduled plant turnaround maintenance for want of sub-continent human resources.

As long as plant capacity utilisation concerns are experienced during the pandemic, Plant Operators are actively considering setting up an overseas warehouse at the customer end to sell during demand rise. Many goods, equipment, and material orders from Atlantic to Pacific were suspended or cancelled because of production line disruption due to human resources unavailability on lockdown.

The distribution sector is categorised as entirely physical, and none can do it virtually. However, we have noticed contactless emergency commodity supply by using drones worldwide, but it is limited to local cities—sourcing country shifts from one region to another. For example, one importer brings a spectacle glass frame from China, and China sustains lockdown. In such a scenario, the same importer may source from another country where lockdown is invalid.

The real estate market also finds it difficult to survive. Property buyers went on the back foot amidst the economic uncertainty. Consumers cut non-essential costs from their regular budget. Most of the retail investors discontinued pre-scheduled instalments putting developers under pressure. Landowners did not show interest in holding a physical meeting with the developer. The ongoing project got stagnant, and the new project did not launch.

## **8. COVID-19 and Production and Distribution of *ETHICAL* Goods and Services (Culture, Art, Religion, and alike)**

Key COVID-19 health protocol includes restriction of social gathering and compliance with PPE. That does not suit our culture. Bengali ethnicity is nourished and fostered by the practice of indigenous art and culture from time immemorial, which cast the foundation of our Bengali nationalism. Implementation of the COVID-19 health protocol among the stakeholders was quite challenging. People remain away from social gatherings representing our art and culture throughout



COVID-19. Nationalism gets stronger by fostering our culture and heritage, which are obstructed by COVID-19, leading to an adverse effect on national bonding. Religious practice was also disturbed by the Corona. To control the Corona Infection Government directed to limit devotees number to a minimum in the prayer hall and maintain social distance while standing in the line. It was difficult for the devotees to accept as it contradicts their long practising tradition and religious scripture. Nevertheless, life is first and foremost, and the situation demands that people ultimately comply with government directives. Mosque, in particular, is financed and managed by its attendees, which was challenged owing to limited devotees.

## **9. Impact of COVID-19 on various Real Economic Sectors (Agriculture, Industry, Service, Informal Economy)**

**Agriculture:** The impact of COVID-19 on our farmer's health is less than in other sectors. Since this sector is rural-based, population density is comparatively less in rural areas. Social gathering with strangers is unlikely; infection risk is low. Farmers more or less were fit to focus on their daily farming activities. However, as long as marketing concerns, they are discouraged from growing/producing some items. Supposedly, the flower business mainly stands from urban area customers, and urban people are in lockdown. As far as ROI is concerned in the agriculture sector, some sectors suffered during the Corona peak. It is valid for the export-oriented item also.

Seasonal fruit/vegetable growers who cannot control their production suffer from market and transport unavailability. What is the solution? The solution is to set up cold storage for preservation at the farmer's end. After restrictions, the agricultural product will come to market from cold storage. The agro-based industry is more or less suffered as some industry owners cut down factory production due to marketing concerns.

**Industry:** Every industry operator sets up their plant targeting a market for their product. Plant Operators make the production planning in alignment with the sale target. Declining sales increase the inventory of the industry. In such a case factory owner may reduce the production or shut down the plant. This is part of the production and marketing strategy to maintain the balance. Once business comes down, the break even point is not commercially viable. Many industries encountered such experience during the COVID-19 peak when their product remained unsalable in the market and could not afford fixed costs leading to bankruptcy. The industry is forced to shut down and lay off its workers. The garments sector is one example sustained on 100% export market. As pandemic outbreaks all over our export countries backfire, our garment industries. Many small-scale garments factories sustained on mega garments factories are reported to have closed down due to declining buying orders. Textile industries also struggled due to low market demand during the pandemic. Purchasing power reduces among general consumers, even priority is felt, and purchase capacity



is there to some consumers, they did not visit shopping market due to lock down or out of infection fear. Festival-related businesses like *pohela boishak*, Eid, Puja and Christmas Day badly suffered from shopping mall to industry. Some heavy industries, like fertiliser plants, staggered the workforce into group A and B patterns to minimise density at the work site and ensure business continuity.

Service: The service sector was severely affected due to COVID-19. Emirates Airlines has offered some pilots and cabin crew up to four months (August-November-2020) of unpaid leave and kept them stand by as it strives to manage the impact of the COVID-19 pandemic. The airline considers it as an alternative solution to lay-offs. Major Bangladeshi Seaport is our economic backbone and ensures the supply chain usually operates with a minimum workforce amidst the absence of critical professionals reported outside the station due to Corona infection. Despite the government's efforts to gear up the construction work of Megaprojects like the Padma multi-purpose bridge, MRT, and Chittagong tunnel, progress remained slow due to working people being forced to leave the project site due to an outbreak of Corona infection. Foreign experts/consultants involved in Megaprojects returned to their respective home countries but were stuck due to travel bans and flight restrictions resulting in project milestone rescheduling. Otherwise, Padma bridge is supposed to be the operative end of this year. Hotels, restaurants, and tourism were worse hit sectors due to the COVID-19 lockdown. Mass transportation and community service are a few examples of run-down during COVID-19 that adversely affect our national budget.

Informal businesses like the iftar market, grocery shops, and hawkers strive during the 2020- lockdown.

## **10. Impact of COVID-19 on Inequality**

### **(Wealth, Asset, Income, Education, Health, Housing)**

Bangladesh inherits a unitary type of government; administrative power is centralised in the capital city, does the development pattern is based on the capital city. Facilities like health, education, and job opportunity lie in Capital City, then the divisional city. The population influx towards the capital city is soaring and reaches beyond its capacity—a significant share of Budget allocation siphons to the capital city. Per capita expenditure budget allocation is exaggeratedly high for Dhaka city dwellers. So City dwellers, mainly Capital city dwellers, are a privileged group across the nation.

COVID-19 support sustains inequality, be it medical support or financial support. Corona-infected people from rural areas run to the city for want of oxygen and ICU. While oxygen and ICU were the lifelines of COVID-19, city-based hospital management followed choose and pick policy benefits the privileged group, leaving the marginalised group to the confluence of death and life position. There is an instance of a COVID patient from a rural area collapsing on the way to City Hospital.

Bangladesh's health sector is yet to be equipped with proper COVID-19 infrastructure, although efforts are there but are limited to the city only. Human resources like doctors, nurses, and medical technicians are the real heroes encountering this pandemic and saving millions of lives with limited resources. It is the time for Government, NGOs, corporate bodies and individuals to focus more on this sector.

During COVID-19 lockdown, students from privileged groups get the online class facility. In developed countries, 100% of students are covered by virtual education. In Bangladesh, some urban schools/universities offer such opportunities. This facility is not open to all students across the country. So, the disparity is evident. Opportunities should be extended up to the marginalised group. To get an exploitation-free society, as our Father of the Nation Bangabandhu Sheikh Mujibur Rahman used to dream, education, housing, and health care should be available for all at affordable cost.

COVID-19 undoubtedly boosted accelerated e-commerce worldwide, although our country's experience is not pleasant. Since Bangladesh is a vibrant market having tens of millions of consumers. In the first six months, online-based business increased by 200% (Ref: Bangladesher Engine). Not only shopping, people earn money through online classes and training also. Many YouTubers with different portfolios are active in social media, making money during COVID-19. Macro-level income from export sectors slashes down due to fewer orders from abroad.

Bangladesh, by tradition blessed with volunteers who come forward spontaneous in times of disastrous moments. We saw their gallantry role from 1971 freedom fighting to the Rana Plaza disaster in 2013. Our Father of Nation Bangobondhu Shaikh Mujibur Rahman would know it; that is why he called upon in Racecourse, 7<sup>th</sup> March-1971 historic speech "*Tomader Jar Ja Kichu Ase, Tai niye sotrur mokabila koro* (whatever you have, encounter enemies with that)". COVID-19 is not an exception, the same way they jumped out with the resources they have to contain the outbreak of COVID-19. It is a unique example of Bangladesh hardly found in other parts of the World.

Along with Government, NGO /Professional bodies worked out shoulder to shoulder to support COVID-19 hit people. In collaboration with the North-West Power Generation Company, the Institution of Engineers of Bangladesh (IEB) made a humanitarian campaign that distributed food items worth, Taka, more than 2 million, among the distressed people all over the country through IEB Centers/Sub-Centers. Similarly, IEB, in collaboration with Max-Group, distributed 2000 Oxygen cylinders among different hospitals in Bangladesh. At the district level, individual and social groups are reported to come forward with lifeline support like oxygen bottles and oxygen tester machines on door steps of COVID-19 patients.

## **11. Impact of COVID-19 on Multidimensional Poverty, including the Class Structure and Occupational Changes**

Referring to the World Bank, the Washington Post, Oct 7, 2020, stated- Global extreme poverty is expected to rise in 2020 for the first time in over 20 years as the disruption of the COVID-19 pandemic compounds the forces of conflict and climate change, which were already slowing poverty reduction progress.

The COVID-19 pandemic is estimated to push an additional 88 million to 115 million people into extreme poverty this year, with the total rising to as many as 150 million by 2021, depending on the severity of the economic contraction.

“The pandemic and global recession may cause over 1.4% of the world’s population to fall into extreme poverty”, said World Bank Group President David Malpass.

Nevertheless, our learned economist has done their homework on poverty from Bangladesh’s perspective. Although lockdown is hard to implement in under-developed and least developed countries has proved to be the most effective solution to slash down COVID-19 infection worldwide, it impacts people’s income and employment badly across the economic line. The supply chain disrupts, commodity price rises, economic activity is on haul, and livelihood is challenged. Increasing numbers of urban dwellers fall into extreme poverty, which has affected people in rural areas. Marginalised groups like rickshaw pullers and daily wage earners who go to sleep in empty pockets were miserably hit by the pandemic. They embraced hunger even partially, but malnutrition is a must. Many NRB have lost their overseas job, and their families sustain remittance; their condition worsens. However, our complacency is that there is no instance of single death owing to hunger. Of Course, credit goes to Her Excellency Honourable Prime Minister Sk. Hasina Government for their timely intervention like food support and cash incentive for vulnerable groups. The livelihood of the lower-income group gets challenged by the stagnant economic condition. It is to say poverty shifts from one cluster to another during the pandemic. Middle-income groups shift to lower-income groups, lower-income groups shift to the poverty level and the poor change to the extreme poverty level.

The light of hope shows that the recent pandemic is on a receding trend in many countries, including Bangladesh, after the COVID-19 vaccine campaign and economic activity is again on the rise and growth recovery is likely to happen even at a slow pace. It could lower poverty.

Bangladesh inherited an un-equilibrium society by education and economic structure, found in a different cluster. Many school-going populations remain out of the national syllabus, prompting a heterogeneous society. Other income groups are noticeable in our community: higher class, middle class, lower-middle-class, poor and ultra-poor.

It is found that marginalised groups temporarily shift their profession under an adverse situation. Suppose roadside hawkers were income less during the lockdown,

and they chose the occupation of a bike rider at the time of lockdown. There was commuting demand at that time, and they took that opportunity for survival.

Private school teachers chose the online tuition profession while schools went on lockdown and salaries were discontinued by the school management.

One Emirates airline cabin crew was found to be YouTubers after losing their job from the airline.

## **12. Impact of COVID-19 on Changes in the Demographics (including Migration— national and international, Reverse Migration)**

Domestic and international migration takes place during the COVID-19 outbreak. Since it is a global issue, our NRB is forced to migrate from abroad to our home country. At one stage, when Corona was soaring in Europe, same time Corona ran down in Bangladesh. Europe-based NRB migrated to their home country to get rid of the infection. Consequences are known to all. Experiences were bitter from both sides. Neither those NRB were happy about quarantine management nor Bangladesh were delighted to receive them. It was widely believed that migration accelerated the domestic outbreak across the Bangladeshi community.

Reverse migration is evident as a result of COVID-19. Many companies are forced to shut down or downsize the organisation and declare job redundancy. Many NRB lost their job abroad. In this way, reverse migration takes place. Secondly, some NRBs sustain small or medium-scale businesses abroad winded up their business due to the COVID-19 lockdown. Unless the social safety net covers them in the country, they used to live in, no other alternative without leaving those countries.

The urban area is the epicentre of Coronavirus. Fear looms over the people while the Covid situation aggravated in urban areas moves to rural/suburb areas, which was not always welcoming for rural people because some of the urban travellers were dormant carriers of the virus and might have been infected. Bangladesh experiences the same as other countries.

## **13. COVID-19 and Changing Pattern of Science, Technology, Innovation**

COVID-19 has obstructed our social life in different magnitude but could not stop the flow of Padma, Meghna and Jamuna, like Science, Technology and Innovation (STI). In the context of Bangladesh, our Engineers and technologists put their best efforts into making a digital platform. Using this platform, governments and NGOs stand beside needy people with health care and food support. STI is a continuous process that always keeps on like a flowing river. We have noticed drone use in some cities of Indonesia for contactless food and medicine supply for the patients in home isolation and ocean ship isolation to contain the devastating wave of COVID-19. Even Bangladesh Police is reported to use a drone for lockdown surveillance in some areas. Although it is localised and demonstrated successfully first of its kind opens up the door for expansion of drone use at the inter-continental level. STI has played a vital role in responding to the COVID-19 pandemic and the unprecedented

socio-economic crisis it has triggered. STI response is positive to stimulate research on COVID-19 vaccine discovery. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is peculiar, characterised by the emergence of mutation sets. Scientists worked hard to discover its genetic sequence in the context of ‘variants of concern’, published in early January-2020. In that way, vaccine development has been expedited via unprecedented collaboration in the multinational pharmaceutical industry and between governments. By June -2020, tens of billions of dollars were invested by corporate bodies, governments, international health organisations, and university research groups to develop vaccines.

Internet of Things (IoT) and Artificial Intelligence (AI) is the fourth industrial revolution. COVID-19 accelerated this transition. Launching 5G wireless connectivity is an example of the four<sup>th</sup> industrial revolution advancement in STI.

5G has successfully been demonstrated to perform remote surgery from thousands of miles away and could transform the healthcare industry. Doctors in China have used 5G to perform remote surgery, inserting a stimulation device in the brain of a Parkinson’s patient from nearly 1,900 miles away.

With the constant maturity of 5G medical association applications, remote care, remote diagnosis, and remote surgery will gradually be applied, thus effectively improving the quality of life of sick people.

Many patients requiring specialist surgeries cannot reach or afford the healthcare professionals they need to treat them. New 5G technology could see that all change.

#### **14. Impact of COVID-19 on Financial Life (Banks, Finance)**

Paper currency notes, due to frequent exchange from one hand to another across all tiers of people considered to be highly potential for virus infection during COVID-19. So People avoided touching paper currency and instead depended on online transfers. As per business standard news, in the first three months, electronic money transfers accounted for 80%, and card transactions increased by 150%. However, this facility in our country is limited to some portion of educated people in urban areas. In future, this facility will expand further. Online banking/ mobile banking attracts clients during COVID-19. It contributes to reducing the public crowd inside the Bank. Mobile-based eWallet has, by this time, become popular in developed countries to help eliminate touching reused paper notes. Mobile banking will soon be expanded in Bangladesh to enable bank clients to transfer money to their internal and external beneficiaries, pay utility bills, and mobile bills/recharge. The bank statement can be downloaded from mobile banking. Money withdrawal and deposits can quickly be made through an ATM booth. Then why does the client visit to Bank? In developed countries, you rarely find bank branches on the roadside. Supposedly, a particular Bank branch you used to see 06 months before, now you will find one travel agency office! Bank Operators gradually squeeze their branches to curtail overhead costs, depending only on ATM booths, online banking and mobile banking.

### **15. Impact of COVID-19 and Changing Pattern of Politics**

COVID-19 is an eye-opener for all of us, giving lessons in many facets of our daily life. Politics is not beyond that, and already changes are evident in the pattern of Politics by this time. Most politicians maintain ID on social media. YouTube as well is open to all. COVID-19 accelerates Politicians to use this platform. Pre-COVID period hardly can attend one or two public meetings a day in a particular area. Now that 360-degree opportunity has opened up, they can virtually participate in 5-10 discussions a day around Bangladesh. Massive money involvement is also there to organise a meeting. A politician can broadcast his message live through Facebook/ Twitter and YouTube. Followers and non-followers can see and hear the lecture from his place or later when they are free. It is a unique tool. Thus we can save tens of millions of working person-hours contributing to economic growth. We do not see huge crowd now a day surrounding the party office. Political parties should not panic about that; your message should reach the people you work for. Politicians on government and opposition sides can hold dialogue on virtual platforms during the national crisis—no need to invite for tea or coffee.

### **16. Post-Covid-19 Economy and Society; Issues of Planning and Development Strategy**

COVID-19 has taken many things from our daily life. On the contrary, it also gives something supposed to be continued in the post-COVID-19 era. COVID-19 help reverses our degraded environment and nature even to a limited scale. It dictated how to run the business with limited resources resulting in profit maximisation. Many companies during COVID-19 had to declare workforce redundancy to sustain their business and rely more on the virtual platform. The corporate house will take it as a lesson and use it as a benchmark post-COVID-19 period. Government and NGO officials can conduct innovative income-generating training courses on a virtual platform for unemployed youth. Government and NGO officials can join meeting virtually from the present location and need not go to other cities, thus saving time and money. Our Honourable Prime Minister is the best example who inaugurated many projects virtually during COVID-19 even people connectivity she maintains through this platform, which is a cost-saving initiative. It is likely to continue the same trend during the Post-COVID-19 period.

Inter-functional and cross-functional meetings are expected to continue during the COVID-19 period. To minimise Dhaka city traffic, the virtual conference is highly desirable.

Planning and Development strategy will be formulated in line with COVID-19 experience; for example

1. Social distance, PPE availability, human sanitisation, passenger vehicle sterilisation,
2. Project Recovery plan in case of schedule backlog, spares/material Inventory management

3. Backward linkage strategy, mobilisation plan, qualification and certification procedure, sourcing countries, vaccination policy for the local and foreign workforce, Manpower backup plan, Isolation/quarantine facility, periodic health check-up, the camp facility at the workplace, laundry facility
4. Daily temperature monitoring of workforce, medical and nursing team with a kit based on workforce number, daily awareness briefing, cleanliness

All those essential points must be taken in due deliberation while formulating planning and development strategies in future endeavours.

## 17. Conclusions and Suggestions

Widespread COVID-19 first ever seen by the global community, is unprecedented, resulting in an adverse effect on socio-economic life. Shocks and therapy out of panic spread everywhere where lives and livelihoods are at stake. Mental health was badly suffered, which is uncountable. Worldometer daily report records the patient number physically infected. However, not giving the data on people with a mental health conditions comes out as a secondary effect. This number increased exponentially. Almost every family was affected sooner or later. The direct shock comes from the loss of family members, and the indirect shock comes from society. Mental health turns down, resulting in mental disease. News published in print media that some chose the way of suicide under prolonged home confinement concerning every guardian and nation.

Non-resident Bangladeshi (NRB) were forced to reschedule their annual leave. NRB and family members on both ends suffered the gap. Such isolation results in either mental disease or suicide in extreme scenarios due to long-term isolation trauma. Lots of matrimonial programs are postponed affecting our social harmony. Many family and social programs were hung out for a sin a die. Kids and youth remain isolated from classmates and school friends and suffer a lack of socialisation, resulting in a psychological disorder.

This shock comes up from job sites owing to job insecurity. Almost every employer is forced either to shut down the business or downsize the organisation or salary cut in optimisation, leading employees to put into hardship by cost re-adjustment within the family.

Our enemy is invisible, having no physical shape and colour, not fighting with a weapon but so deadly snatched away more than 51 million lives, equivalent to the population of South Korea. Economic loss and impact on Livelihood are immeasurable. It damaged tens of millions of mental health, which is irreparable. So we cannot take it lightly to be addressed on the fast track to save our lives and reverse economy and livelihood.

Based on the multidimensional analysis of the impact of COVID-19, we forward the following suggestions for the consideration by the relevant authorities:



- Bring 100% eligible population under vaccination.
- Adhere to Virtual Media and make it available to marginalised people for education.
- Introduce online training course to continue Human Development.
- Allocate more budget (including tax rebate in investment) to the health care sector.
- Enhance capacity for oxygen generation and distribution.
- Recognise volunteer organisation, front liner participating in COVID-19 mitigating campaign.
- Form task force on COVID-19 or allied disease.
- Address the Post COVID-19 complicacy for the patients who recovered earlier.
- Develop more medical technicians and doctors for COVID-19 and allied disorders.
- Build mass awareness following COVID-19 protocols like PPE, sanitisation, and social distance.
- Introduce clause about COVID-19 while awarding development project.

The analyses of the impact of COVID-19 on human development prove the related conclusion in human development as aptly put by Barkat, “*Material progress will increase the human welfare of the universe up to the point when it starts to diminish the quantity of ethical goods*” (see, Barkat 2020, ‘A Political Economy Treatise on Value of Things’, in *Bangladesh Journal of Political Economy*, Vol 36, No 1. P.10).





## Impact of Covid-19 Pandemic and Human Development

Md Sharfuddin Ahmed\*

In all countries, but especially those with low and middle incomes, there is concern regarding the effects of the pandemic on the most impoverished populations. These population groups have difficulties in adopting preventive measures (such as social isolation); they are exposed to a context of pragmatic vulnerability that increases the risk of contamination, and, if infection occurs, they have limited access to health services. It is a complex, dynamic context that requires special attention from governments.

These conditions in which people live and express, to a greater or lesser extent, the risk of illness are called social determinants of health (SDH). Identifying the SDH that influences the dynamics of COVID-19 is of fundamental importance for dealing with the pandemic and its consequences, thus contributing to the definition of mitigating public policies.

The Human Development Index and the Social Vulnerability Index are essential sources for studying the SDH. They help understand the context of the population's living conditions and thus support decision-making. The SVI measures the access, absence, or insufficiency of some assets in areas of the country's territory, which should, in principle, be available to every citizen due to the action of the State. The SVI varies from 0 to 1; the closer to 1, the greater the degree of social vulnerability. Based on this, our health policymakers should understand the relationship between COVID-19 and the population's living conditions to identify the SDH related to the incidence, mortality, and case-fatality rates of COVID-19.

COVID-19 currently represents the leading global health, social, and economic challenges. In Bangladesh, the disease spread started in the country's most developed cities in early 2020. It has spread throughout the territory without delay, reaching smaller and more vulnerable areas whose populations are exposed to a chronic and historical context of social deprivation. This process of spatial dissemination justifies the complex influence of SDH on the spread of the virus across the country.

But the 2<sup>nd</sup> wave with the Delta variant of Covid-19 virus mainly spread

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through land borders between India and Bangladesh. It infected most of the cities and villages of border areas and gradually moved to larger towns and the capital. It then spread again to village areas during Eid vacation to infect millions of people. Concerns about the advance of the COVID-19 pandemic in the country's smallest, most vulnerable, and least developed municipalities raise the red alert. Our government and local authorities adopted the following:

1. Delay the arrival of the disease in these locations by adopting effective prevention mechanisms that consider the collective risk of illness, the social context experienced by these populations, and the best existing scientific evidence;
2. Expand and prepare the health network with urgent investments in all levels of care, especially vaccination; and
3. Guarantee social protection for the vulnerable population.

Considering that the virus is reaching the most vulnerable and least developed areas in the country after those with better living conditions, there is reason to believe that people of these areas are more severely affected and would have suffered incalculable consequences if consistent support measures were not adopted urgently.

The first reason concerns the risk context of these populations and the difficulties in implementing and/or adopting preventive measures. Tens of millions of workers earn their income from activities related to the sale of products and the provision of services, constituting a population vulnerable to contamination. In poorer areas, the percentage of these populations rises considerably.

Furthermore, in many cases, this is the only source of income for the family's subsistence, making adherence to voluntary social isolation challenging to maintain for an extended period without the proper support of emergency public policies. COVID-19, therefore, has a double effect on the most vulnerable populations to the extent that it both perpetuates poverty and is perpetuated by poverty itself.

It is perpetuating in the sense that, for each percentage point reduction in the global economy, it is estimated that an additional 10 million people will be placed in poverty. It would furthermore increase inequality in income distribution.

It is perpetuated by poverty because this vulnerable population, having no financial reserves and depending on emergency government assistance, will be unable to adhere to non-pharmacological preventive measures, such as social isolation, wearing masks, and hand hygiene. In this regard, their living conditions can maintain the COVID-19 transmission chain active.

The lack of home structure and access to minimum resources, such as water and basic sanitation, both on the outskirts of large cities and in the country's interior, can increase the risk of illness due to COVID-19, as observed with other respiratory diseases.

Even in rich countries, such as the United States of America (USA), the social inequalities in cities determine the greater or lesser risk of illness for their residents. In Boston, for example, there is a high concentration of poverty and a prevalence of diseases caused by it in certain areas and good living conditions and a low prevalence of these diseases in other nearby points. This scenario reinforces the relationship between social policies and the health conditions experienced by the population.

A study carried out in the USA, with data from 433 cities, involving 283 256 cases and 6644 deaths from COVID-19, showed that the highest social vulnerability index was associated with a higher incidence and lethality due to the disease (Relative Risk- RR = 1.19), being still higher when considering the population aged 65 or older (RR = 1.63). In the study, 28.9% of the municipalities had a high social vulnerability ( $SVI \geq 0.46$ ) and a high adjusted lethality rate ( $\geq 2.3\%$ ). In addition, mortality caused by the disease, especially in household providers, can increase the poverty of families. In this investigation, municipalities with small population sizes and those with high SVI already show high mortality rates.

The situation tends to become more critical when all municipalities are affected. Even with the set of actions implemented by the government to contain COVID-19, it is likely that after this pandemic, our country may face a second crisis related to poverty and the diseases associated.

The second reason refers to the capacity of municipalities to face the contamination of their population and offer conditions for the detection and treatment of patients. Considering that 7% of those infected will need hospitalization and 2% will require intensive care, the municipalities with very high vulnerability (which recorded 4964 cases of COVID-19) would need 347 hospital beds and 99 intensive care units (ICU) beds.

The loss of income can bring other consequences for the population's health, such as a higher frequency of mental illnesses, increased substance and other drug abuse and increased domestic violence. It is not yet possible to predict the size of the impact of the pandemic on people's lives, especially on the most vulnerable. Therefore, strategies to combat COVID-19 must be developed on different fronts of action.



## Socio-economic Impact of COVID-19: Planning and Strategy for the Economic Recovery in Bangladesh

Md Abdul Mojid\*

### Abstract

*COVID-19 spreads throughout the world. The pandemic of coronavirus disease of 2019 is a possible threat to public health that gained global attention. Symptoms include fever, cough, tiredness, loss of taste or smell, sore throat, headache, aches and pains, etc. The world's economic, social, medical, and educational systems are at stake, such as the COVID-19 pandemic halted all the development signs of progress in our society. In the context of Bangladesh, people are more vulnerable because Bangladesh has limited resources to mitigate such an unpredictable epidemic. Many people lost their jobs and died due to inadequate medical facilities; students were deprived of their education because they did not attend the class or exams. This paper's main objective is to evaluate the potential impact of the COVID-19 pandemic on the economy of Bangladesh. This paper aims to understand the public perception of socio-economic crisis and human stress in resource-limited settings of Bangladesh during the COVID-19. This study is based on an empirical review of the recent study work, reports, and working papers of home and abroad regarding economic crisis. Despite the uncertainty created by COVID-19, the outlook for Bangladesh's economy is positive. "we hope Development will support a resilient recovery, Bangladesh will achieve green, smart, and inclusive growth."*

**Keywords** *Economy of Bangladesh · Inclusive growth · Agriculture · Income Inequality*

### 1. Introduction

The coronavirus (COVID-19) disease, first reported in Wuhan, China, in December 2019, is quickly spreading around the world countries have been struggling to address the preexisting burden of infections with limited). Bangladesh is one of the most vulnerable countries due to its high population density (170 million people in 147,000

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sq. km). It has suspended almost all economic activities up to June 2020 except agriculture and puts thousands of employments at risk. International trade orders are being greatly cancelled, especially in ready-made garments industries. Most of the people in our country live below the poverty line. Due to the lockdown since Mar 8, 2020, the people are passing an overwhelmingly stressful moment. If the lockdown process continues for longer many people would face severe starvation.

The foreign remittance will come down, thus hitting the country's foreign reserves. Almost half of Bangladeshis are employed in the agriculture sector. The country mainly depends on exporting ready-made garments items and producing pharmaceuticals.

## **2. Effects of COVID-19 on the Economy of Bangladesh**

COVID-19 has already affected 208 countries and regions in the world. Economically developed countries are failed to tackle this pandemic situation. In comparing developed countries, the developing countries cannot meet this condition. Bangladesh is the most densely populated country globally, and its medical facilities are so high that it is impossible to provide medical facilities to large populations. Due to lockdown and isolation, the world economy is in turmoil. The economy of Bangladesh is seriously affected by covid as follows:

### **Ready-made Garments**

The ready-made garments industries are the principal source of foreign exchange earnings. The ready-made garments sector covers more than 85% of total export earnings. More than four million workers are employed in the RMG industries, and more than 85% are illiterate women from rural villages (Wikipedia). Due to the commencement of COVID-19, the Bangladesh ready-made garments (RMG) industry has already received work order cancellations of nearly \$3 billion.

### **Foreign Remittance**

Remittance is the lifeblood of many developing countries, like Bangladesh. The government has embraced a vast population, but this population is an asset because they are known as remittance fighters and have worked in different parts of the world. Bangladesh is now one of the largest remittance recipients, with almost \$15.3 billion in 2018. It was the third-highest recipient of remittance in South Asia in 2018. The Bangladesh Bureau of Statistics revealed that 33.45% of remittances are a go-to investment and 13.74% go to savings (Wikipedia).

The remittance sending behaviour, trends, and volumes are changing daily (BMG). result of the flow of remittance tremendously decreasing in the las

### **Agricultural Sector**

During the lockdown, access to agricultural products, materials, markets, and advisory services, greatly impacted farming. Agriculture processing and trade faced problems with impaired production by quarantine measures and low consumer

demand, mainly thanks to limited hotels, restaurants and occasional shop operations. Farmers are still facing difficulties with having mineral fertilizers, veterinary supplies and machinery spare parts. The country's fish and dairy farmers are now bearing their brunt. Crabs, Shrimp and fish farmers faced export restrictions leading to significant economic losses. Bangladesh's garment sector has withdrawn from many foreign orders, and many garment workers have lost their jobs. The garment sector faced devastation, and the government announced subsidies in this sector to recover the losses. Similarly, the pharmaceutical industries are affected.

### **Banking and Financial Sector**

Banks globally could face increased credit and default risk since businesses generate cash insufficient to service debt thanks to business closures, shut-downs and lower demand for goods and services during the pandemic. Many lending or investment decisions being postponed for now might not see the light again.

### **Tourism and Travel Agency**

The tourism and hospitality industry has also stopped and suffered from the pandemic. The coronavirus outbreak affects the worldwide tourism and hotel business due to travel restrictions, fear of illness abroad, fear of using airports and other centres of mass gathering etc. Travel agencies constitute a fragmented sector in Bangladesh, and due to COVID-19, many small ones are expected to shut down their offices, and most of the airline's hotels stopped their operation.

### **Social Determinants of Health**

We observed that health has a crucial influence on health inequities-the unfair and avoidable differences in health status. The more severe health hazards are marked, and Bangladesh has a lower socio-economic position. The samples of social determinants of health are given below:

- Income and social protection;
- Education;
- Unemployment and job insecurity;
- Working life conditions;
- Food insecurity;
- Housing, basic amenities and the environment;
- Early childhood development;
- Social inclusion and non-discrimination;
- Structural conflict;
- Access to affordable health services of decent quality.

### **Relation between Social Determinants of Health and COVID-19**

Social determinants like access to health care, income inequality, housing and neighbourhood density and cultural beliefs influenced COVID-19 incidence.



Bangladesh is a developing country with a high population, and most are unaware of health. Poor Working people don't get the health facilities. Thus, the poor people face different troubles during this COVID-19 time. They cannot stay home despite sickness because they need to earn their livelihood during this time.

Access to medical facilities is a fundamental right, but the strain that the COVID-19 pandemic places on healthcare systems affects medical care providers for several people.

### **Housing and Neighborhood Density**

It is evident that communities, like proximity to resources like grocery stores, green space, and the combination of companies, amenities and housing, collapsed due to the effects of the COVID-19 pandemic.

### **Income Inequality**

Unemployment may be a curse in Bangladesh. Many of us don't work, and most people work with low salaries and uncertain jobs. The garment workers, rickshaw pullers and day labourers, some people live hand-to-mouth, and people's income has become extremely low. They must try to work daily for their livelihoods as they desire fixed money. The income inequality increased the likelihood of COVID-19.

### **Education and Food Security**

Educated people have a secure jobs and food security. During this epidemic, they are more conscious and maintain distance as they need less thinking about livelihood. So, education and food security may reduce COVID-19 in Bangladesh. After the discussion, we will say that social determinants of health and COVID-19 have some relief for people who are wealthy, educated and have enough food availability

### **Culture Beliefs**

Cultural beliefs and perceptions in this respect are observed. Many poor and uneducated people think there are no infectious diseases within the world; therefore, they do not maintain social distance. Many believe that pious and noble people could not be infected by Covid-19. They are unaware of wearing masks and don't be conscious of hand sanitization, so cultural beliefs negatively impact COVID-19 in Bangladesh.

## **3. Some Theories**

### **Functionalism Theory**

As many of us are infected by coronavirus disease, numerous economic and social organizations remain closed as people can't participate in their work correctly. Therefore, affairs also disrupted society, losing its stability and solidarity.

### **Conflict Theory**

The theories emphasize the social, political or economic inequality of a group. It also highlights inequality within the quality of health and healthcare delivery. Working regularly for their livelihood are more susceptible to coronavirus infection. But they

do not get proper medical facilities. We will see that the rich and powerful people get the appropriate oxygen facilities, ICU facilities and doctor's services. But, poor people aren't getting proper treatment facilities. They do not get a bed in the hospital.

### **Some Recent Studies Regarding Covid-19**

Corona destroyed each sector in Bangladesh, particularly education, economy, and health. The outcome of coronavirus is terrible as people are not capable enough to recover from financial issues rapidly, and students already lagged in their regular studies.

Issues on planning and strategy

- *Job creation*, looking at the number of jobs that needs to be created, the types of jobs started and who benefits from them, and the match between the skills required and those available in the local workforce.
- *Boost to economic activity*, focusing on the reach intervention can deliver, a project's ability to directly replace missing demand, and its impact on import levels or the national trade balance.
- *Timeliness and risk*, assessing whether the project generates stimulus and employment benefits over the concise term and whether they are durable even in the face of possible re-imposition of local quarantine measures. Need packages for the sectors. Over the more extended period, Govt must also support the country on two different dimensions
- *Long-term growth potential*, govt may look at its impact on human, natural, and physical capital.
- *Resilience to future shocks*, with interventions to build capacity for societies and economies to cope with and recover from external shocks, like COVID-19 today and other forms of natural disasters and future climate change impacts.

#### **4. Conclusion**

Safety of the patients and the staff is essential while considering orthopaedic surgery during and after the COVID-19 pandemic. The hospitals must have adequate infrastructure and resources to deal with these critical cases over the non-operative treatment. We have to face a massive population and limited resources. Our socio-economic scenario has been broken, and government and non-government organizations should come forward to handle this sudden outbreak. Monetary and financial strategies face significant difficulties in stabilizing the economic climate. As a lockdown has been imposed to regulate coronavirus disease, people could not continue their work correctly in Bangladesh, where marginal people need to meet their basic needs. While our medical resources or facilities are not enriched enough to mitigate these sudden traumatic situations, people suffered greatly from treatment during this time.

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## **Impact of COVID-19 on Bangladesh and path to revive economic growth and development in the context of global changes**

**Mozidur Rahman Biswas\***

Successive waves of coronavirus took a deadly toll on life in countries worldwide. South Asian countries like Bangladesh, India, Nepal, Bhutan and Sri Lanka firstly imposed lockdown and restrictions on travel. Subsequently, they started reviving their economic activities and opened the door to visiting tourists by scrapping quarantine requirements for vaccinated foreigners. With the gradual change in the situation, countries necessitated bolstering growth and development by opening industries and business operations, adopting the philosophy primarily based on essential factors for reopening the tourism sector in the best interest of their economies.

However, all visitors had to undergo a pandemic test on arrival, and unvaccinated travellers had to remain in quarantine for ten days. Decisions came just as monsoon clouds cleared for the autumn trekking season last year to drive up economic activities ending extended closures. During that dark period, many lost jobs following which their livelihoods were trapped in problems that defy all description. The change of such decisions was crucial for all LDCs and developed ones, but the countries had to decide on deeming positive factors in line with global changes of the COVID-19 situation.

Neighbouring India announced allowing 500,000 free tourist visas to 12.5 million tourists in 2019 to reopen the economy as they lost hundreds of millions of dollars after the shutters came down in March of 2000. Thus, New Delhi firstly started negotiating with international airlines to get scheduled flights resumed from main markets in North America and Europe. Bhutan allowed foreign tourists much earlier through an American who spent three weeks in quarantine. Still, the country had imposed draconian restrictions to minimise the impact of the pandemic, recording only three coronavirus deaths in the population of 700,000.

On the other hand, Sri Lanka allowed vaccinated tourists to enter the country in July without having to quarantine if they tested negative for Covid-19 on arrival.

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The countries in South Asia are highly dependent on tourism, which accounted for some 47 million jobs in 2019, according to the World Travel and Tourism Council. In the context of the changing situation, several South Asian countries took pragmatic decisions in the tourism sector. However, successive waves of coronavirus took a deadly toll on lives and properties.

In the process, the Bangladesh government adopted both short- and long-term plans based on precision and sound vision in the best interest of the country's economic growth and development. Amidst all the doom and gloom associated with the Covid-19 pandemic, some new things have emerged on the economic front as the IMF and OECD have forecast a strong rebound in the global economy. The US economy has attained a robust recovery in the first quarter of the year, marking lacklustre performance from May to April of the current year 2021.

Developing economies, strongly linked to the developed ones, did expect to ride on the tide and get out of the rut seen in 2020. The GDP growth of 8.4 per cent and 6.5 per cent are forecast for China and Vietnam, respectively, in 2021. Whereas Bangladesh, having its focal point to change its economic status, endeavoured cautiously to bypass LDC to attain a developing level by 2026 needed to recover whatever damages during the subsequent pandemic, again exceeding 5 per cent GDP growth (6.1 per cent in 2020-21). Despite adverse effects of the covid-19 pandemic, the projections update presented in April 2021, the World Economic Outlook, the IMF warns of "scarring effects", indicating longer-term damages that various economies might suffer. Thus a vital question arose, whether the economy of Bangladesh would face further danger or not, as noted from a few important broken trends that appeared in the wake of the pandemic. The rising trend of GDP growth after 2012-13 was disrupted in 2019-20.

Bangladesh, after registering continuous and, to some extent, healthy growth performance of the manufacturing sector, output in the sector in 2018-19 was nearly twice that of GDP. The sector would start playing a role similar to prosperous countries like the Republic of Korea and Malaysia. The primary industry, the ready-made garment industry, began experiencing a decline in export growth even before the pandemic hit. Despite some recovery since March this year, total export during 2020-21 is almost certainly going to be lower than that of 2018-19 (the typical last year). It implies that if Bangladesh maintains growth of over 8 per cent, its level of exports of 2018-19 shall have to be achieved in 2021-22, indicating a longer-term challenge ahead in the global context.

Thus poverty appears to have been broken after decades, though there is no official data on the incidence of poverty for 2019-20. The estimates and small-scale surveys conducted by various research organisations indicate that the poverty line has slipped below the threshold. The experience with previous economic crises in developing countries (e.g., in South-East Asia) shows that a return to pre-crisis paths is not always automatic. The surplus labour in agriculture had started to appear to decline due to the transfer of labour to modern sectors, especially

in manufacturing. The movement of labour in the opposite direction seems to be taking place, but the tough challenge now would be to put back on track the process of structural transformation in the labour market.

Large or medium, small or micro-, all economic activities were exposed to the shock inflicted by the Covid-induced crisis. The nature and magnitude of the shock varied between different types of enterprises-- depending on their size and sector. Investments for raising productivity and bringing about improvements in the business usually are not a priority in the current situations and will have implications for long-term competitiveness. Within the worst economic activities under the prevailing crises, the owners/operators are not willing to make any stride for improvement or expansion of their enterprises. However, the government's financial support package includes a component for micro and cottage enterprises and millions of informal operators who run business activities for survival. They cannot be expected to meet the challenges of accessing the formal support scheme. Several studies indicate that many such businesses went out of operation either temporarily or permanently. Many had to depend on loans from informal sources to meet living expenses. When they can return to their standard business path is a question that has important implications for long-term growth.

A couple of recent studies claim that although people lost jobs during periods of shutdown, they were able to get them back once economic activities resumed. That, in turn, might lead one to conclude that the pandemic crisis may not cause any long-term damage to the labour market. But this would be a simplistic way of looking at the issue. Their enterprises or were working in a family business may have gone back to work once they could reopen their businesses.

The situation, however, is quite different for formal jobs, especially for wage- and salary-based work. Depending on the sector one is talking about, workers have been retrenched, and new recruitments have been postponed or stopped altogether. Sectors like education, finance, and a host of support services also have been affected. There is some evidence showing a sharp fall in job announcements through online job portals. In the prevailing situations, the youth, especially those about to enter the labour market, usually bear the main brunt. Research has shown that those who enter labour markets during crises not only find it challenging to get their first jobs but also suffer from long-lasting adverse effects - both in terms of further episodes of unemployment and lower than average earnings during their career.

Scarring effects on the economy and individuals can also occur through what is happening in the world of learning. Educational institutions in the country have remained closed for a very long time, which has multiple implications for human capital development. First, online instructions cannot be a substitute for education based on in-person and direct contact, especially when developing social and other soft skills needed to groom individuals. Second, online education is creating additional mechanisms for accentuating inequalities that already exist in society. Vast numbers of pupils are falling behind because of various factors like

income, access to facilities, location etc. While skill development of individuals is being impaired, this has implications for the economy and society. Disruptions in education and skill development, coming at a time when the economy needs to augment the supply of higher-level skills, can have severe implications for the economy's long-term growth.

To attain the long-term goal set by the government, achieving upper-middle-income status by 2031 and higher-income status by 2041, GDP growth needs to accelerate to 9 per cent per annum. Reducing poverty to 7 per cent by 2031 would also be quite challenging for a country like Bangladesh. The experience of countries emerging from previous economic crises, Bangladesh followed the path taken by Malaysia and Thailand, which were regarded as among the "Asian tigers" in the 1980s and 1990s. The average annual GDP growth of these two countries from 1990-to 96 was 8.7 per cent and 8.3 per cent, respectively. During 2000-17, the rates declined to 4.9 per cent and 3.9 per cent, respectively. The Asian economic crisis of 1997-98 acted as a kind of brake on red hot growth that those countries attained for nearly two decades, and they were never able to return anywhere close to such change in the subsequent decades.

Although there may not be strict parallels between the experiences of various countries, lessons provided by history should not be overlooked. As such, the government of Bangladesh took up some of the critical decisions on the economic front. They considered the possibility of long-term damages that might be caused to the economy and the labour market. Government functionaries adopted strategies and policies to address the deteriorating trend in the national economy. The policymakers had to explore the ways and means for the appropriate methodology to find out the panacea to bounce back. A robust recovery followed this on the socio-economic front within the global crises.

Early during the pandemic, many expected poorer countries to be hit much harder than rich countries. All these resulted in broad agreement that the Covid-19 pandemic has exacerbated inequality within countries. Less frequently noted is the impact on inequality across countries, which has been moving in the opposite direction, owing to the disproportionate effect the virus has had on advanced economies.

As mentioned earlier, experts in the earlier period expected that the pandemic would hit poorer countries much harder than rich countries. In a May 2020 poll of the Initiative on Global Markets' Economic Experts Panel, a majority agreed that the "economic damage from the virus and lockdowns will ultimately fall disproportionately hard on low- and middle-income countries." And policymakers held a similar view, with International Monetary Fund Managing Director Kristalina Georgieva noting in April, "just as the health crisis hits vulnerable people hardest, the economic crisis hits vulnerable countries hardest".

The assumption was that low and middle-income countries would suffer from a lack of public-health capacity and fiscal resources. But the data tell a different story. In a June 2020 paper, the World Bank's Tristan Reed found that cumulative



Covid-19 deaths per million people were substantially higher in high-income than middle-income and low-income countries, even when excluding China. Moreover, the trajectories of the pandemic were remarkably different across countries at different income levels.

According to an update in December 2020, this pattern has persisted: there is a strong positive correlation between income per capita and deaths per million. And though it might be tempting to attribute this finding to a measurement error (deaths may be reported less accurately in poorer countries), the magnitude of the differences is too large to ignore. But later on, the data shown on January 28, 2021, there were 1,323 deaths per million people in the United States and 1,496 deaths per million in the United Kingdom compared to 712 in South Africa (the hardest-hit country in Africa), 111 in India, 107 in Indonesia, 14 in Angola, and seven in Nigeria. Meanwhile, many upper-middle-income countries in Latin America have exhibited mortality patterns similar to those documented in Europe and the US.

Examining the changed situation, global experts viewed that they do not yet have a full explanation for this unexpected pattern. Preliminary evidence suggests that many low-income countries may have benefited from demographic factors (younger populations; lower obesity rates) and trained immunity (in which the innate immune system reprogrammed itself against a disease). But even more surprising is the unanticipated “advantage” that poorer countries have demonstrated on the economic front. As a new paper by the Nobel laureate economist Angus Deaton shows, global inequality has declined due to the pandemic – at least in the short run. During the past year, income per capita fell more in richer countries than in poorer countries, resulting in an unexpected “convergence” between rich and poor. More deaths per million mean not just lost lives but also more significant income losses.

Equally important, this pattern is not driven by China. On the contrary, while a population-weighted measure would suggest that global inequality has increased slightly — because China (no longer a developing country) pulled ahead of others last year – a population-unweight measure that excludes China reveals a marked decline in global inequality. Reduced inequality is usually a welcome development, at least in settings characterised by vast disparities in living standards across countries at different stages of development. And yet, the Covid-19 served as a sober reminder that “how?” matters as much as does “what?” In this case, global inequality declined not because poorer countries became richer but because richer countries became poorer.

This form of convergence has disturbing policy implications. While low and lower-middle-income countries have fared well in relative terms, their outlook is increasingly bleak in absolute terms. Many now face rising debt, slower growth, declining commodity exports and tourism revenue, and diminishing remittances. Moreover, we have yet to see the long-term consequences of a lost year of income and investment in human capital. Millions of children (especially girls) have



missed a year of school, just as millions of women have been deprived of maternal health care and millions more people have been plunged into poverty.

Making matters worse, the nature of this unexpected convergence implies that advanced economies will have little appetite to channel resources toward poorer countries, whether through direct aid, openness to international trade and investment, or debt forgiveness. Preoccupied with rising inequality at home, high-income countries will continue to turn inward, prioritising their own citizens' needs over those of the global poor.

The US and Europe's retreat from the developing world will create an opening for others, but for China, which has already returned to growth. If accessing lucrative Western markets becomes untenable due to rising protectionist sentiment, China-centric alternative initiatives such as the recently signed Regional Comprehensive Economic Partnership may become increasingly attractive to developing and emerging economies. On a more positive note, low-interest rates in the US and Europe may lead to a "hunt for yield", driving capital flows into developing countries. But, if so, these economies will need robust institutions and thoughtful policy to ensure that capital inflows foster widely shared growth and poverty reduction rather than merely enriching a small upper class.

Most importantly, all countries will need to continue investing in their human capital and improving their domestic institutions, resource scarcity notwithstanding. Many improvements are a matter of will rather than budget. For example, strengthening schools is often a matter of ensuring that teachers show up in the classroom and that students have access to appropriate textbooks. Efficient use of available resources and effective implementation will be more critical than ever. With the rich getting poorer, the poor must take matters into their own hands. The year 2020 is associated with the pandemic, and it has become a milestone, described by some as a significant turning point in history. No doubt, 2020 will be over soon, but its memories will stay with us for years and decades to come. The events of the year will provide several stories on surviving the Covid-19 pandemic, to be shared with generations. Besides, the year 2020 is associated with the pandemic, which has become a milestone, described by some as a significant turning point in history. So what will the post-Covid-19 world look like remains a question mark?

Richard Haas, strategist and author of 'The World: A Brief Introduction', notes in his article on foreign affairs that the pandemic will neither reshape history nor create a new world. However, it will accelerate the changes that the world was preparing for or was entering into before 2020. The statements of this expert and other specialists put an end to the speculations that spread in the first quarter of 2020 and that indicated that we are facing a comprehensive and historic revolution in digital trends. It has been said that globalisation will become history and be replaced by a new world order and that humanity will witness comprehensive and massive revisions that will lead to a change in the course of transformations. Global

powers will disappear and be replaced by other forces with their new concepts and systems. Will the world change? Yes, but not in a different direction, but at a different pace.

Humankind has lived through tremendous pressure during 2020. This pressure was sufficient to create strong momentum to accelerate the expected and programmed changes. Sanjeev Khagram, a contributor at The Economist Intelligence Unit of the 'Economist' magazine, believes that today, we are on the threshold of witnessing the further blurring of boundaries between the physical, digital and biological aspects, which are the main characteristics of the Fourth Industrial Revolution. The changes that this revolution brought, for many people, were an image of a far future. There is no option now but to accept it as an urgent and necessary reality. Khagram said that the pandemic has allowed many people to experience digital developments and the effects of artificial intelligence-supported technologies such as robots, drones, 3D printing, industrial and agricultural automation, and their implications on our health and wellness.

What was inevitable in the earlier days becomes urgent for today. Variables that were described as fast are now at full speed. The change is not simple, and it is not easy either. It is only possible for those who choose to engage with challenges and win the battle of designing the future, whether for governments, institutions or individuals. So, have we prepared ourselves for that?

Bangladesh must rediscover 1971 in all its glory to face the challenges by way of a deeper understanding of what our independence struggle stood for. We must follow the principles of Bangabandhu's famous speech on March 7, 1971, where he said, "Ebarer Sangram amader Muktir Sangram; ebarer Sangram Shadhinatar Sangram." Now we want to emphasise that since our struggle in 1971 was more than just political independence, instead the struggle was designed for a fundamental reform of our society, i.e. to liberate us from all our backwardness, prejudice, hatred, incapacities, narrow-mindedness, etc. on the one side, and eliminate poverty and all sorts of discrimination. But with the change of time, we have juxtaposed the very concept of "Mukti Juddho". Tragically, in the real sense of the term, our nation has not been able to bring any fundamental changes to implement the true meaning of the 1971 struggle.

Bangladesh, as a country, is facing an unprecedented challenge in dealing with the post-unemployment problem, despite the steady economic growth over the past few years. According to the statistical index, the employment rate in Bangladesh increased from 3.38 per cent in 2010 to 5.3 percent in 2020. More specially, it jumped to 5.3percentin 2020-the first year of the pandemic –from 4.22 per cent in 2019. A World Bank report published in 2019 revealed that 32 per cent of public university graduates and 44 per cent of private university graduates were without jobs in the country.

A survey by the Bangladesh Institute of Development Studies (BIDS), conducted between February and June this year, found that 66 per cent of the graduates of National University are unemployed, and those (21 per cent) who could manage a job have an average salary of Tk.30,000. Seven per cent are still pursuing post-graduation, and only three per cent have become entrepreneurs. Another survey jointly conducted by the Centre for Policy Dialogue (CPD) and Oxfam in Bangladesh found that 61.57 per cent of working people had lost their jobs in March and April last year due to a Covid-related shutdown. Even though 15 per cent of them returned to work in a month, most remained unemployed for a long time. The poor and the marginalised people faced, and still face, an even higher risk of loss of livelihood.

The pandemic has had a long-term negative impact on women's employment in Bangladesh. A survey conducted by Brac Institute for Governance and Development (BIGD) revealed that one-third of the young working women in the country were out of jobs as of January 2021, when economic activities resumed in Bangladesh. Several reports have shown that, due to Covid-19, income generation among the working class has fallen remarkably, and the economy now has 24.5 million new poor. Besides, our working-age population has increased significantly over the past two decades – from 58 per cent to 68 per cent. About 30 per cent of the population is between 15 and 30 years. If the government trains and employs them appropriately, they can open up new economic opportunities when the country is trapped in crisis following the pandemic. A functional approach to expand the job market, foster economic growth and eradicate unemployment would be to attract foreign and domestic investments in various sectors, which is only possible if we create a business-friendly environment in line with global changes.

Recently, in a ROUNDTABLE on FAST-CHANGING POVERTY DYNAMICS, Issues and Priorities by BRAC, United Nations Development Programme (UNDP) Bangladesh and The Daily Star jointly organised a webinar, which comprehensively dealt with the post-Covid situation of Bangladesh's economy. Mahfuz Anam, Editor of The Daily Star, in his deliberation, categorically pointed out that the Covid-19 pandemic has exacerbated the plight of the extreme poor people in Bangladesh. Since these people don't have representation in the parliament and policy-making forums, it is up to us, the media and the civil society to fight for their issue. The government should direct the same resources it provides to the private sector to this group of poor people. It is not philanthropy and hand-out but an essential part of the development process. If we subscribe to the motto of the SDG's-'leave no one behind '- then we would see that this is the right time to take such an initiative. As a media house, we will provide all kinds of support to make that effort successful, he assured. Many other intellectuals of varied areas, on occasion, critically analysed the issue from their angle marked by a wide-ranging mission and vision to deal with the situation in line with changes across the globe.

Earlier, many eminent scholars, like Serajul Islam Chowdhury, Salimullah

Khan, Syed Manzoorul Islam and others, many a time, identified the absence of democratic politics in line with the real spirit of our Liberation War. They also determined that the nation has not been able to bring any progress not only in youth unemployment but in many areas in every social stratum. Besides, the disappearance of an active civil society and societal disengagement and cultural vacuum has deepened further with time. All those are the underlying causes of the rise of communal forces in a country like Bangladesh. But these vital issues have never been considered with seriousness and urgency by our policymakers and cross-section of political leaders in the country.

In the context of the above, there is no doubt that Bangladesh has made considerable progress on the economic front. However, these gains have come at a high cost to our democratic rights and freedoms and the cost of a widening rich-poor gap. That is why our economic progress, though substantial as it is, has not led to a more profound harmony but to more significant dissonance, part of which gets expressed in attacking minorities. It should not have escaped anyone's attention that those participating in the attacks on minorities mainly were youth.

Many intellectual analysts believe the role of civil society (the Bangla term for civil society is "Shushil Samaj") and the present leadership, with the help of some partisan intellectuals, have turned the word "shushil" into one of ridicule, mockery, and near hatred. It has become almost like abuse to be called a member of "shushil Samaj."

According to them, societal disengagement is also sadly proper as we no longer seem bothered enough to take up social causes and fight for them as our own. Though, these are to be judged against two instances in which mass outpouring was most brutally suppressed—the road safety movement and the quota movement—sending a clear message that mass participation in social causes will not be tolerated, resulting, among other factors, into the citizens' disengagement that Prof Manzoorul Islam has referred to.

As for the absence of cultural activities, we need to think deeply about what happened in this area. Our cultural heritage was one of the principal weapons in our arsenal to fight the Pakistani domination and its army. If we underline the particular importance in a broader sense, we find the near-total disappearance of cultural activities at the village level. This absence of cultural activities—and we are not talking about government-sponsored ones, but those that emanate from people's spontaneous participation—has deprived our youth of their heritage, sense of identity and pride. All these allowed the entry of nefarious influences to fill the vacuum, the most dignified analysts believe.

The Bangladeshi nation, facing various challenges today, requires broader unity among the people, especially involving the political parties, cultural organisations, youth, and civil society. Besides, the NGOs, the media, and people of all views and beliefs shall have to be more conscious, as such mass awareness campaigns are the prime need to 'cross the long dark tunnel to see the light at its end'. This is

necessary because Bangladesh was born based on broader expectations of millions who laid down their lives in 1971.

The political leadership comprising the entire political spectrum, government functionaries and intellectuals in varied areas of the societies have to build up greater understanding to bring back the real spirit of our Liberation War to build up Bangladesh society and the nation as a whole, to march the country in line with the global changes. But all sections of the society shall have to understand the real meaning of Economic development. According to Economics theory, growth increases the country's total production. Still, development means equally distributing or diffusing the country's whole produce to all citizenry in all strata of the society.

Bangladesh has increased its GDP, but the benefits have not been distributed equally among people. That is why large-scale inequality exists in Bangladesh society. According to economic analysts, a smaller section of the people has become the owner of the country's wealth, and millions of people live in poverty in different strata of society.

The most critical factors are Bangladesh's sustainable development, efforts to move from the LDC category to Middle income and Developing country by 2026; as such, the country shall have to continue strenuous efforts not only to increase GDP instead the government has to efforts to ensure distributive justice and balanced Growth and Development in line with global changes. That is the panacea for a country like Bangladesh so that all citizenry can enjoy the fruits of development enshrined in the Constitution of the Republic.

## ***Footnoting and Writing Style of the Bangladesh Journal of Political Economy***

1. The Bangladesh Journal of Political Economy will be published in June and December each year.
2. Manuscripts of research articles, research notes and reviews written in English or Bangla should be sent in triplicate to the Editor, The Bangladesh Journal of Political Economy, Bangladesh Economic Association, 4/c Eskaton Garden Road, Dhaka-1000, Bangladesh.
3. An article should have an abstract preferably within 150 words.
4. Manuscript typed in double space on one side of each page should be submitted to the Editor. Submission of electronic version is encouraged.
5. All articles should be organized generally into the following sections:  
a) Introduction: stating the background and problem; b) Objectives and hypotheses; c) Methodological issues involved; d) Findings; e) Policy implications; f) Limitations, if any; and g) Conclusion (s).
6. The author should not mention his/her name and address on the manuscript. A separate page bearing his/her full name, mailing address and telephone number, if any, and mentioning the title of the paper should be sent to the Editor.
7. If the article is accepted for publication elsewhere, it must be communicated immediately. Otherwise, the onus for any problem that may arise will lie on the author.
8. The title of the article should be short. Brief subheadings may be used at suitable points throughout the text. The Editorial Board reserves the right to alter the title of the article.
9. Tables, graphs and maps may be used in the article. Title and source(s) of such tables should be mentioned.
10. If the Editorial Board is of the opinion that an article provisionally accepted for publication needs to be shortened or particular expressions deleted or rephrased, such proposed changes will be sent to the author of the article for clearance prior to its publication. The author may be requested to recast any article in response to the review thereof by any reviewer.
11. The numbering of notes should be consecutive and placed at the end of the article.
12. Reference in the text and in the Reference list at the end of article should follow it as below:

**i. Book (one or more authors)**

- Start your full reference with the last name of the author(s) so it connects with the citation; then give initials or first name(s) of the author(s).
- Year of publication comes next.
- Next, give the title of book: in italics or underlined (but be consistent throughout your list of references).
- Finally, give the place of publication and name of publisher.

*Example***In-text citation:**

(Wilmore 2000)

(Just cite the last name(s) of writer(s) and the year the book was published).

**Full reference:**

WILMORE, G.T.D. (2000). *Alien plants of Yorkshire*. Kendall: Yorkshire Naturalists' Union.

## Chapter from an edited book

- Start with the full reference entry with the last name of the chapter's author, followed by initials, then state year of publication.
- Then give name (s) of editor(s). The last name of an editor precedes his or her initials, to distinguish editor(s) from the name of the writer of the chapter. Indicate single editor by an abbreviation: (Ed.), or editors: (Eds.).
- State full title of book - in italics or underlined. It is helpful to then give a chapter number.
- Finally, give place of publication and name of publisher.

*Example*

Citation:

(Nicholls 2002)

(Cite the name of the writer of the chapter or section in the edited book).

Full reference:

NICHOLLS, G. (2002). *Mentoring: the art of teaching and learning*. In P. JARVIS (Ed.) *The theory and practice of teaching*, chap. 12. London: Kogan Page.

**iii. Referencing journal articles**

- Start with the last name of the author of the article and initials of author.
- Year of publication.
- Title of article (this can go in inverted commas, if wished).
- Name of the journal or magazine (in italics or underlined).
- Volume number and part number (if applicable) and page numbers.

- References to journal articles do not include the name of the publisher or place of publication unless there is more than one journal with the same title, e.g. International Affairs (Moscow) and International Affairs (London).

### *Example*

Citation:

(Bosworth and Yang 2000).

Reference:

BOSWORTH, D. and D. YANG (2000). Intellectual property law, technology flow and licensing opportunities in China. *International Business Review*, vol. 9, no. 4, pp.453-477.

The abbreviations, 'vol.' (for volume), 'no.' (for number) and 'pp' (for page numbers) can be omitted. However, for clarity and to avoid confusing the reader with a mass of consecutive numbers, they can be included, but be consistent. Note how, in the example above, the initials of the first author follow his last name (Bosworth, D.), but precede the second named (D. Yang). This is the practice illustrated by British Standard in their guidelines with Harvard and both numerical-referencing styles, although you may find the guidelines at your institution may differ on this point.

## **iv. Example of referencing an electronic source**

### *Example*

Citation:

(Dixons Group 2004)

Reference:

DIXONS GROUP PLC (2004). Company report: profile. [Accessed online from Financial Analysis Made Easy (FAME) database at <http://www.bvdep.com/en/FAME.html> 13 Dec. 2005].

13. Reference mentioned in the text should be arranged in alphabetical order and provided at the end of the article.
14. The Bangladesh Economic Association shall not be responsible for the views expressed in the article, notes, etc. The responsibility of statements, whether of fact or opinion, shall lie entirely with the author. The author shall also be fully responsible for the accuracy of the data used in his/her manuscript.
15. Articles, not accepted for publication, are not returned to the authors.
16. Each author will receive one complimentary copy of The Bangladesh Journal of Political Economy and 5 off-prints.





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