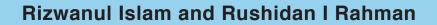




## The Impact of COVID-induced Economic Crisis on Employment and Labour Market in Bangladesh Analysis with particular focus on informality and gender dimensions







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## **Executive Summary**

#### The context

Measures adopted to address the challenge of the COVID-19 pandemic have led to an unprecedented global economic crisis which in turn has severely affected the employment and labour market situations. Bangladesh is no exception. While the lockdown measures imposed from March to May 2020 hit the economy hard, economic recovery is taking time. The deep recession of the global economy is also having an adverse effect. There are already visible signs of the impact of the economic crisis on employment and livelihoods of the people. It is in this context that the present study has been undertaken.

#### The purpose of the study

The purpose of the present study is to analyse the impact of the health and economic crisis on the employment and labour market situations of Bangladesh and to provide recommendations on possible policy responses for the short and medium-term future. While a large part of the study deals with employment as a whole, it also provides particular focus on how those in the informal economy, and women in general, have been affected.

#### Channels of transmission of the impact of the health and economic crisis to the labour market

The adverse effects of the combined health and economic crisis are being transmitted to the labour market through two broad channels: Domestic and external. On the domestic side, the shutdown of public life has resulted in the complete stoppage of economic activities during the period, which in turn has led to loss of jobs and livelihoods for many; especially those working as day and casual labourers, and those in petty self-employment and micro enterprises. The sectors that were at high risk included transport, manufacturing, construction, and services of various types. With the loss of jobs and incomes, and with the lingering health crisis, both consumption and investment have been adversely affected.

On the external side, the sharp global recession resulted in a steep decline in demand which included the most major export item of Bangladesh: Ready-made garments (RMG). As orders were being cancelled and new orders dried up, the immediate impact was a closure of many factories and less-than-capacity operation in others. The second route through which the job situation was affected was overseas employment. As countries dependent on expatriate labour went into recession, and demand for workers fell, a large number of workers from Bangladesh lost their jobs and started returning. New jobs abroad are highly unlikely until the economies of those countries sprung back.

In the absence of necessary, up-to-date, and real-time data on the labour market, the present study adopts the approach of combining projections (based on recent labour force data and reasonable assumptions about key parameters) with data on specific aspects like export of RMG and on overseas employment. A few key findings of the study are presented below.

#### Key findings

- The COVID-induced economic crisis has resulted in a sharp decline in the growth of the economy (from 8.2 per cent in 2018-19 to 5.24 per cent in 2019-20 according to government figures) and the loss of millions of jobs.
- The sectors most severely affected include manufacturing, construction, transport and services. The urban informal economy has been hit very hard both during and after the period of shutdown.
- It is estimated that nearly 11 million jobs (counting both formal and informal sectors) were lost during the period of shutdown (April-May, 2020). When the backlog of unemployment of about 3 million people are added to the above, nearly one in five of the labour force may have been without jobs during April-May.
- For 2019-20 as a whole, the loss of jobs is estimated to be over 3 per cent of the labour force. The manufacturing sector is estimated to have lost over half a million jobs, with the service sector losing another 1.23 million.
- The ready-made garment industry is estimated to have shed about 400,000 jobs.
- The urban informal economy is estimated to have lost 1.08 million jobs, which is 6.78 per cent of its pre-COVID workforce.
- Women are being disproportionately affected by the COVID-related health crisis as well as the resulting economic and labour market crises. This is because their shares are higher in the sectors that are facing higher risk (e.g. manufacturing, non-crop agriculture, and household service) and in the urban informal economy which also has been affected more severely.
- Women are also having to bear a disproportionate burden while working from home.
- For overseas employment, 2020 may be a lost year. While 129,000 jobs were recorded for January and February, there has been news only of return migrations since then. Very few new jobs abroad may be expected during the rest of the year.

#### Policy recommendations

The government has already announced a policy package for economic recovery amounting to Tk103,117 crore. While the implementation of the package is still at an early stage, and it is too early to assess the effectiveness of the various measures included in the package, a few suggestions have been made from the point of view of making economic recovery more inclusive. Rather than adopting passive strategies for recovery and going back to the pre-crisis pattern of growth which did not produce the desired impact on employment, the present study suggests a specific and stronger focus on employment.

Moreover, as the economy has yet to come out fully from the immediate effects of the shutdown, the study suggests **a two-phase strategy**:

- The **first phase** will be the time till the virus has been brought under a reasonable degree of control and economic activities have restarted without the constraints of lockdown.
- The **second phase** should begin from the time when economic activities will have restarted fully. Medium-term and longer-term policies/strategies would need to be put in place for making growth more inclusive.

**Policy for the first phase** should take aim at minimising the adverse effects on employment and the labour market and the hardship of those who are dependent on labour income. The primary focus should be on

- More effective measures to provide social safety net (including a basic income support) to the poor and low-income people until the situation returns to normal
- Measures for quick revival of economic activity (without compromising on safety and hygiene in places of work) including speedy and efficient implementation of the government's economic recovery package
- Special effort to ensure that petty businesses and micro and small enterprises can access the fund that has been earmarked for credit (e.g. the Tk2,000 crore credit guarantee scheme announced on 23 July, 2020)
- Efforts to save jobs through measures like sharing of work and temporary leave with part pay
- Emergency employment programmes, especially for the poor who may lose jobs.
- Special attention should be given to help girls continue their studies and to prevent a rise in dropout during and in the immediate aftermath of COVID-19. For those who wish to move to income earning work, medium-term strategies for skills development are needed
- A full-fledged strategy is required to assist returning migrants in getting reintegrated into the economy. Given the precarious situation of the economy, it may be more practical to think in terms of helping them start their own enterprises. In this respect, the government's programme of providing loans to the returning migrant workers for setting up their own enterprises is a step in the right direction

**Policy during the second phase** (i.e. for medium term) should focus on remodelling growth with measures to make it employment-friendly. For that, it would be important to:

- Formulate and implement a full-fledged strategy for employment
- Include strategies for protection against unemployment and old age

The need of the hour is to have a fully articulated strategy for employment with protection against loss of jobs and incomes integrated into it. While the primary responsibility for this task lies with the government, it would be important to undertake it in consultation with other stakeholders, viz. representatives of employers and workers, and the civil society.

## 1. Introduction

The coronavirus disease (COVID-19) that started in China in December 2019 spread to the entire world by about March 2020 and soon took the form of a global pandemic. As the epicentre of the health crisis moved from China to different parts of the world, in order to contain the spread of the virus, most countries adopted the policy of shutting down public life, restricting movement, social distancing and strengthening practices relating to personal hygiene. These policies resulted in serious adverse effect on the economies of various countries and the global economy went into a recession. Thus, the global health crisis soon transformed itself into an economic one. It is feared that the depth of the present recession is going to be even more severe than that of the Great Recession caused by the global economic crisis of 2007-08.

Although the IMF had forecast global growth for 2020 to be at 3.3% as recently as in January 2020, it changed the forecast in April and then again in June. The latter forecasts global output growth to decline by 4.9 per cent in 2020. The depth of recession forecast for the advanced economies is much higher (-8.0 per cent), and recovery is not foreseen to start before the first quarter of 2021. For Bangladesh, IMF lowered its forecast for 2020 to 3.5 per cent while the government of Bangladesh lowered it (for fiscal year 2019-20) from 8.2 per cent to 5.2 per cent.

Like many other countries, Bangladesh also adopted the policy of shutting down public life and economic activities which started from 26 March and continued till the end of May. Even though economic activities were allowed in a limited way in the second half of May -- and were completely freed from 1 June -- in view of the continuation of the rapid spread of the virus, restrictions had to be re-imposed from around the middle of June.

The experience of Bangladesh with the attempts to shut down public life, and opening up even before the spread of the virus could be contained, brought out the sharp dilemma of choosing between saving lives from the spread of the disease and protecting the livelihoods of people endangered by the shutdown. It was clear that in the absence of measures to provide income support to the people whose livelihoods were affected by the shutdown, that such a measure could not be continued for too long.

When public life was shut down completely and economic activities had to cease, the impact on the labour market was immediate. A large number of workers in various sectors -- ranging from manufacturing to construction, transport, repairs, trade, food and accommodation, and other services -- lost their jobs. When domestic demand declined, the sectors and activities that produce goods and services for the domestic market were affected; and with that, those who were employed in such sectors. Likewise, when external demand was affected, the sectors that produce goods for export were hit; and with that, those employed in export-oriented sectors.

In the context of the economic and labour market effects of the pandemic, a number of issues have already come up:

• Is the shock on the economy predominantly from the supply side, demand side, or perhaps from both sides?

- How are different sectors of the economy (e.g. formal vs informal, various economic sectors) and different groups (e.g. men and women and people with various levels of education) in the labour market being affected?
- How are the incomes of the poor and lower-income groups being affected?
- How is education, especially that of young women, being affected?

An assessment of these impacts can help in policy-making during the period of the health crisis as well as after the immediate crisis is over and the economy recovers.

The basic objective of this present study is to make such an assessment and provide recommendations on possible policy responses for the short and medium-term future<sup>1</sup>. It is organised as follows: (i) Section 2: a brief review of the relevant literature; (ii) Section 3: a framework for analysing the channels of transmission of the effects of the crisis to the labour market; (iii) Section 4: projections of unemployment and job loss; (iv) Section 5: impact on the ready-made garment industry; (v) Section 6: impact on the employment of women; (vi) Section 7: impact on overseas employment; and (vii) Section 8: concluding observations.

In the absence of official, real-time data on employment and the labour market for 2020, the present study had to use the method of making projections – of course, using the latest available data from official sources, e.g. the economic surveys of the Ministry of Finance; the labour force surveys of various years including 2016-17; data on overseas migration from the Bureau of Manpower, Employment, and Training (BMET); and data on the ready-made garment industry available from the website of BGMEA. Estimates have been made separately for the period of lockdown (April-May 2020) and for 2019-20 as a whole.

## 2. A Review of the Literature

Although the pandemic is still making its course and its impact on the economy while the labour market situation is still unfolding, there is already a growing number of literature on the subject. While some of the studies are general (theoretical or analytical), there are empirical studies on the global situation and on the situation in some specific countries. Given the specific-country focus of the present study, it would perhaps have been natural to concentrate on studies covering Bangladesh alone. However, it is felt that some of the more general studies could also have relevance for analysing the situation in Bangladesh. Hence, we look at both types of studies on a selective basis. As there is already a debate on the nature of the shock that various economies are facing and that may have implications for policy, we begin by looking briefly at that issue. Then we look at empirical studies covering the magnitude of the impact on labour markets.

<sup>&</sup>lt;sup>1</sup> Given the still unfolding nature of the crisis and the absence of data needed to analyse the issues mentioned above, the present exercise should be treated as preliminary. Also, it does not intend to cover all the issues mentioned above, and will need to be followed up by further analysis when relevant data, especially on the labour market are available.

#### The nature of the economic shock

On the question of the nature of shock inflicted on the economy by the corona pandemic and measures adopted to slow down the spread of the virus, there are studies on both sides of theoretical perspectives: Supply and demand. Proponents of the supply shock position (e.g. Osmani, 2020; World Bank, 2020) argue that the shutdown of public life and the economy resulted in a sudden stoppage of the supply of a wide range of goods and services, which in turn led to the economic downturn.

While recognising that there is an element of demand shock as well, Osmani argues that, for the domestic sector, "it is restricted supply rather than an exogenous fall in demand that is the main problem" (Osmani, 2020, p.15). Both Osmani and the World Bank report mentioned above are of the view that the solution does not lie in stimulating aggregate demand as in a typical Keynesian recession which is caused by a deficiency in demand.

In contrast to the above-mentioned supply shock perspective, there are studies suggesting that the COVID-induced economic crisis has elements of both supply and demand shocks. For example, Roubini (2020), in an early opinion piece in March 2020, alerted that "every component of aggregate demand -- consumption, capital spending, exports -- is in unprecedented free fall". One theoretical paper by four economists teaching at Chicago, Harvard, and MIT (Guerrieri, et al. 2020) argues that what starts as a disruption to the supply side of the economy can metamorphose into a demand deficiency.

They point out that supply and demand forces are intertwined, and the supply shock can lead to a shortage of demand, which in turn leads to contraction in output and employment by causing enterprises to close down fully or operating at lower-than-optimal capacity. And such drops in output and employment can take place in sectors not directly affected by shutdowns.

#### Impact on labour market: how many and who?

Since March 2020, the International Labour Organization (ILO) has been monitoring the impact of COVID-19 and related measures on the employment and labour situation at the global and regional levels, and has been bringing out periodic reports on this subject (ILO, 2020 a, 2020 b, 2020 c and 2020 d). While the first edition projected global unemployment to increase by about 13%, the third edition (ILO, 2020 c) projected that the global working hours in the second quarter of 2020 may be 10.5 % less than the last pre-crisis quarter.

For Asia and the Pacific region, the forecast is for a loss of 10 per cent. ILO (2020 d) points out that young people are disproportionately affected by the COVID-induced economic crisis both in the labour market and at the time of entry into the labour market. The report mentioned the possibility of the emergence of a "lockdown generation" whose future is also likely to be scarred by the initial adverse effects they suffer from.

At the country level, for Bangladesh, there is no official data on job losses occurring as a result of the shutdown since March, because the country's labour force survey is not carried out every

year. Also, hardly any in-depth research has been done up till now on the impact of the crisis on employment and the labour market.

In a newsletter article (Bidisha and Mahmood, 2020), projections have been presented on "gap in jobs" by using the concept of employment elasticity with respect to output growth and alternative estimates of GDP growth for 2020 and 2021. For 2020, with GDP growth of 5.5 and 6 percent, the gap has been estimated to be at 4.48 and 4.25 million respectively.

One particular study (BRAC-BIGD and PPRC, 2020), based on a rapid response survey carried out during 4-12 April, provides useful insight into the extent and nature of the impact of the crisis on the livelihoods of the poor. The survey was purposive, covering households in slum areas in both urban and rural regions. As nearly 70 per cent of the respondents reported wage/salaried work and casual labour as their principal occupation, it can be surmised that the survey basically covered the poor.

On the whole, 63 per cent of the respondents reported being rendered economically inactive during the shutdown. In the urban slums, the figure was 71 per cent while in the rural sample it was 55 per cent. The respondents from the urban slums reported a 75 per cent drop in incomes compared to the last week of February. As for coping mechanisms employed by the poor in response to the crisis, 47 per cent of the urban slum residents and 32 per cent of the rural residents reported reduced food intake. Drawing on savings was reported by 67 and 82 per cent respectively. But they also mentioned that, from this source, they would be able to feed themselves for another 8 and 13 days respectively (in urban slums and rural households).

In a study based on postings in online job portals (ADB, 2020 a), it has been found that they have declined since the COVID-19 outbreak: In April 2020, the number of job postings was only 13% of the total jobs posted in April 2019 for Bangladesh<sup>2</sup>. The trend in online job applications in Bangladesh also follows a similar trajectory. It may be noted in this context that, given the nature of the study, it covers only formal sector jobs whose proportion within the total employment in the country is very low.

As the ready-made garment industry is a major source of employment, especially in the urban manufacturing sector -- and also critically important for export earnings -- the spotlight has naturally fallen on it and a few studies are already available with specific focus on the sector. One study (RISC, 2020) deals with a number of issues like the early impact of a disruption in the supply chain due to shutdown of the Chinese economy, cancelling of orders by brands and retailers when the major importing countries faced recession, the impact of such decisions on the workers of the industry, and the measures adopted by the government of Bangladesh to provide support<sup>3</sup>. Some salient impacts reported in the study are listed below:

• In mid-March, 58 per cent of the suppliers reported having to shut down all or most of their operations as a result of work cancellations.

<sup>&</sup>lt;sup>2</sup> This study covers Bangladesh and Sri Lanka. For the latter, the corresponding figure is 30 percent.

<sup>&</sup>lt;sup>3</sup> See also Jahan, et al. (2020) for a good analysis of the cancellation of order by retailers and brands and the impact on workers.

- More than 1 million workers were fired or furloughed at that time.
- By 26 April, 2.27 million workers were affected according to the BGMEA
- Three-quarters of the workers were sent home without their legally-mandated severance pay.

BRAC-BIGD (2020) describes the impact of the crisis on the RMG sector and examines various aspects of the government's support package for the sector in specific. Like the RISC report mentioned above, this report also mentions that cancellation of orders by the retailers affected 2.28 million workers. It examines various aspects of the government's support package of Tk50 billion for export-oriented industries, and points out that, in spite of the scheme, frequent non-compliant layoffs took place without legally-mandated severance payment.

## **3. A Framework for Analysis**

There are different channels through which the impact of the pandemic is being transmitted to the labour market. They include the lockdown in the country and its immediate effects, the indirect effects on the economy via the decline in demand for goods and services, and the impact of the global economic recession. In any economic crisis, different sectors and groups in the labour market face different degrees of risk; and the severity of the impact varies accordingly. The labour market also adjusts to the crisis in different ways. These issues are analysed in this chapter and a few research issues are identified.

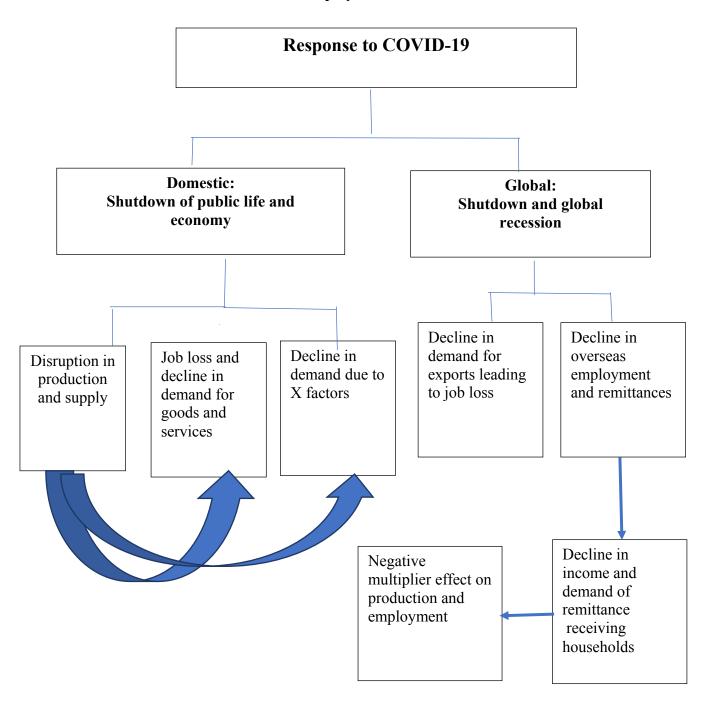
#### 3.1. From COVID crisis response measures to employment: channels of transmission

Figure 1 depicts a picture of how the interplay of various factors affects output and employment in the economy. On the domestic front, the lockdown resulted in the ceasing of economic activities, an immediate impact of which was loss of jobs in a wide range of industries and professions. But the situation soon got transformed into a demand shock. With countries closing their borders, putting restrictions on travel, banning public gatherings, airlines stopping flights, and people cancelling their holidays, the demand for a wide range of goods and services was affected. Loss of jobs resulted in loss of incomes, causing an adverse effect on demand. Restrictions on public life, the fear instilled into the people's collective psyche, and the general sense of uncertainty created by the situation -- factors that may be described as "X factors" (See Figure 1) -- are also creating a negative impact on the demand for goods and services<sup>4</sup>.

<sup>&</sup>lt;sup>4</sup> Reluctance in opening retail shops even during the major religious festival and the absence of the usual rush of shoppers in places where stores did open, lack of passengers in public transports like buses, trains and airplanes, dearth of patrons in restaurants even after economic activities were allowed to re-start are symptomatic of this X factor. There is anecdotal evidence of these in numerous media reports.

#### Figure 1: Channels of Transmission of the COVID Crisis Response Measures to

Employment



Source: Authors' elaboration

Thus, measures taken to fight the health crisis created a dampening effect on jobs, incomes, and demand for a wide range of goods and services; including those of manufacturing, construction, trade, transport, recreation, education, personal services, etc. What started as a supply shock soon transformed into a demand shock through the inter-linkages between the markets of goods and services. As the situation evolves and life moves beyond the period of shutdown, the metamorphosis of the supply shock into a wider crisis for the economy, with both demand and supply interacting on each other, is becoming clearer.

On the external front, during the early stage of the pandemic, Bangladesh was facing a bottleneck in its supply chain as it is dependent on China for a variety of goods that are used as raw materials in various industries. Soon, the situation became more complex as the major markets of Bangladesh's export goods -- viz. USA and European countries -- faced recession due to shrinking demand resulting from shutdown in their own countries. As a result, the suppliers in Bangladesh were confronted with cancellation of orders from buyers. Thus, the economy of Bangladesh was hit by disruption in the demand for export goods, especially ready-made garments.

An additional factor on the external front is overseas employment and remittances sent by those working abroad. Countries that are major employers of workers from Bangladesh, especially those in the Middle East region, have also been hit by the COVID-19 pandemic and are facing recession. As a result, they have not only stopped recruiting workers from abroad but are also sending laid-off workers back to their own countries. Anecdotal evidence, especially media reports<sup>5</sup>, indicate that large numbers of migrant workers have been returning since April. The other side of this adverse effect on a major source of employment is the possibility of a decline in remittances. For the families of migrant workers who remain behind in the country, remittances are a major source of income.

And uncertainty in that source is bound to have an adverse effect on the demand for goods and services within such households; which, in turn, is going to weaken the multiplier effect of income/consumption on output and employment.

In summation, the economy of Bangladesh is facing a dual shock -- from both the supply and demand sides -- which in turn is having a negative effect on the employment and labour markets. In order to understand what policies are needed to respond to these shocks, it would be necessary to first examine the real nature of the impact on the labour market and its different segments, to which we now turn.

<sup>&</sup>lt;sup>5</sup> See, for example, *The Daily Star*, July 15, 2020. https://www.thedailystar.net/backpage/news/bangladeshiworkers-around-2-lakh-may-have-leave-kuwait-1930549; *The Daily Star*, June 18, 2020. https://www.thedailystar.net/backpage/news/covid-19-fallout-14000-migrant-workers-return-empty-handed-april-1-1916249

#### 3.2. Variation in the impact on different sectors of the economy

Taking into account the channels of transmission of the effects of the COVID crisis response to the labour market, it is possible to hypothesise how various sectors and groups in the economy are likely to be affected. In doing so, it is important to look not only at what has been happening during the period of shutdown but also beyond that period into the medium-term future, and assess the possible risks during the period of recovery.

In general, it may be useful to recall one general experience from various types of crises in the past: Recovery in the labour market usually follows economic recovery with a lag period, the duration of which can vary between sectors and groups in the labour market. The following paragraphs provide some *a priori* analysis in this direction, and Table 1 presents it in a summarised form.

**Agriculture:** As the lockdown did not affect the rural areas in the same manner as the urban areas, the crop sector was not severely affected. However, marketing of products does face some risk. In addition, vegetables and fruits and products based on poultry, livestock, and fisheries can be affected even more. So, the overall risk for the sector can be classified as low to medium.

**Manufacturing:** Export-oriented industries were already affected adversely and continue to face high risk. The workers in most of these industries are usually on already precarious contracts, and face the risk of being retrenched when export orders are cancelled.

The extent to which domestic industries would be affected depends on the type of products, the markets they cater to, and the extent to which the markets are affected by the shutdown and subsequent developments. During the period of shutdown, their production has already been affected. But once they have been able to resume their operations, the question becomes whether they would be able to go back to their pre-crisis level. Given the tentative nature of the opening up and widespread uncertainty affecting consumer and investment demand, this sector faces a high degree of risk.

**Construction:** Severely affected during the shutdown, but is likely to face continued challenge in going back to the pre-crisis level because of a decline in demand.

**Trade:** During the period of shutdown, this sector was severely affected. Even after lockdown is lifted, given the continuation of uncertainty and decline in both consumption and investment demand, this sector will remain one of the more highly affected and high-risk ones.

**Transport, accommodation, and food services:** These are also sectors which were severely affected by the shutdown. And for reasons mentioned in the case of trade, this sector will continue to be severely affected.

Education: Severely affected during the shutdown, and will continue to face uncertainty.

Health: Demand for the services from the health sector has increased.

**Personal services:** Highly affected during the shutdown, but demand situation may improve during the process of opening up.

**Domestic service:** Impact of the shutdown varied depending on whether domestic workers lived in the residences of the employers or were day workers.

 Table 1: Severity of Impact of the COVID Response Crisis on Various Sectors of the Economy

Sector	Severity of Impact	
	During shutdown	During recovery after the end of shutdown
Agriculture	Low-medium	Low-medium
Manufacturing	High	High
Construction	High	High-medium
Transport	High	High-Medium
Wholesale and retail trade	High	High-Medium
Hotel and restaurants	High	High-medium
Finance	Medium	Medium
Real estate	High	High-medium
Education	High	High-medium
Health	Low	Low
Public administration	Low	Low
Personal services	High	Medium
Domestic service	Medium	Medium

Source: Author's elaboration based on the analysis presented in section 3.2. See, also, (ILO, 2020 c).

3.3. Possible impact on the labour market and different ways of adjustment<sup>6</sup>

- Decline in employment alongside a fall in output growth, and thus a rise in unemployment;
- A combination of a rise in unemployment and a decline in real wages;
- Changes in the type of employment (e.g. shift to part-time work, precarious contracts, and other flexible work arrangements);
- Move towards the informal sector;
- Reverse migration to rural areas and increased pressure on agriculture and rural non-farm sectors;
- Dropping out of the labour force; and
- Young people delaying entry into the labour force

<sup>&</sup>lt;sup>6</sup> For a more detailed discussion on these various ways of adjustment, see Islam (2020).

#### 3.4. Some research questions

A number of research questions and hypotheses may be formulated on the basis of the above analysis. Although it would not be possible to address all such questions in the current state of the availability of data, it may be useful to list a few. In doing so, the issues and areas of investigation relating to the immediate/transient effects and the cyclical effects are listed separately.

#### The immediate (or transient) effects

- i As the impact of the shutdown was like a lightning strike, there was no opportunity for the labour market to adjust, and the impact was entirely quantitative, i.e. loss of jobs and increase in unemployment, even if it was temporary.
- ii As the shutdown affected urban areas more, the non-agricultural sectors bore the brunt of the impact (as analysed in section 3.2).
- iii As the informal sector and micro-enterprises account for a major part of some of the nonagricultural sectors, they were severely affected by the shutdown.
- iv As the export-oriented industries faced an immediate crisis due to disruption in export markets, employment was also adversely affected in such industries.
- v As women are heavily represented in the export-oriented RMG industry and in some segments of the informal sector, they are having to face a disproportionate share of the adverse effects of the crisis.

#### Regular cyclical effects

- i When shutdown ends and economic activities gradually restart, a part of the labour market will also recover. The question then would be about the pace and extent of that recovery.
- ii As the economy continues to go through a downturn, some sectors (or parts of sectors) would continue to feel the adverse effects and would lay off workers/employees. That is when the various adjustment mechanisms suggested in section 3.3 can come into play; and it would be important to monitor and analyse the processes and their outcomes.
- iii In the process of labour market adjustment mentioned in item (ii) above, different groups (e.g. men and women, the youth, and people of various levels of education) would be affected differently.
- iv It is quite possible that the nexus between the modern and traditional sectors, between rural and urban areas, would start to play out during the period of cyclical downturn and recovery<sup>7</sup>.

<sup>&</sup>lt;sup>7</sup> Anecdotal evidence (e.g., media reports) points to such possibilities. Low-income workers who have lost their jobs are reported to be leaving the urban areas because of their inability to meet the cost of living there. Likewise, there are reports of layoffs from the formal sector, e.g., banks, etc.

# 4. The Impact of the COVID-induced Economic Crisis on Employment: Some Preliminary Estimates

The impact of the pandemic on economic activity and employment needs to be looked at separately for the period of shutdown and for 2019-20 as a whole. This is because the situation during the shutdown was extraordinary in that all economic activities, except emergency services, stopped; and, as a result, most people who are dependent on work carried out on a daily basis, lost their livelihoods. On the other hand, during the first nine months of the fiscal year 2019-20, i.e. from July to the third week of March, the environment for economic activity was normal; and hence, the overall picture for the year should be different from the April-June period.

In order to take the above difference into account, estimates of the impact on employment are made separately for the two periods. The impact during the shutdown period is termed the "immediate/transient effect", while for the whole year it is termed the "cyclical effect". We first present the estimates of the transient effect and then the cyclical effect. For the latter, separate estimates are made for the urban informal sector.

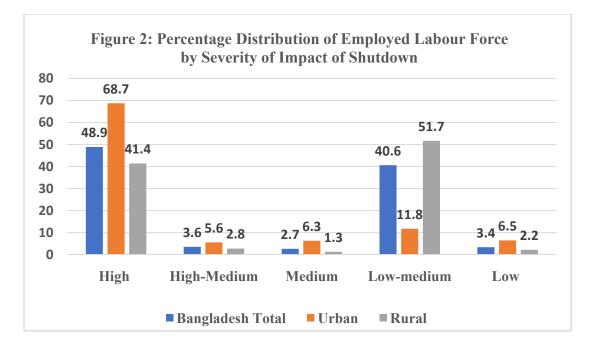
#### 4.1. The immediate/transient effect

#### Groups at risk

In order to understand how the employment situation was affected by the shutdown, we start by looking at the baseline situation with respect to the sector composition, the weight of the informal sector and the gender composition of the various sectors. Data is presented in Annex 2, Table 7 (in section 6) and Table A-2.1 (in Annex 2).

Using data on the sector composition of employment (Table A-2.1) and the characterisation outlined in Table 1, the employed population has been categorised by various degrees of risk in the face of crisis<sup>8</sup>. The result is presented in Figure 2. One can see that, for Bangladesh as a whole, nearly half belong to high-risk group. For urban employment, this proportion is about 69 per cent. Adding those categorised under high-medium risk, it can be seen that nearly three-fourths of the employed population in urban areas belong to this group. It would appear from Figure 2 that the urban labour force is facing higher risk in the face of the current economic crisis.

<sup>&</sup>lt;sup>8</sup> For example, Table A-2.1 shows that the share of employment in manufacturing is 14.4 per cent. Table 1 in the text (above in chapter 3) shows that manufacturing is in "high risk" category. So, we put 14.4 per cent in that category. Likewise, we add the shares of other sectors that are in high risk category, viz., construction, transport, trade, hotel and restaurants, real estate, and personal services. Adding all these we get the total shares of high-risk category - 48.9 per cent, 68.7 per cent, and 41.4 per cent for Bangladesh total, rural and urban areas respectively (Figure 2). The other numbers in the figure have been arrived at by using the same methodology for other risk categories and numbers in Table A-2.1.



Source: Calculated by using Labour Force Survey data presented in Table A-2.1 and the categorisation presented in Table 1. Method explained in footnote 8.

Those engaged in the urban informal sector have been hit particularly by the pandemic related shutdown. In order to estimate how many may have been affected, we used data from the labour force survey of 2016-17. For different sectors, data is available on informal employment as a percentage of total employment in the sector. We have categorised them into four groups as follows:

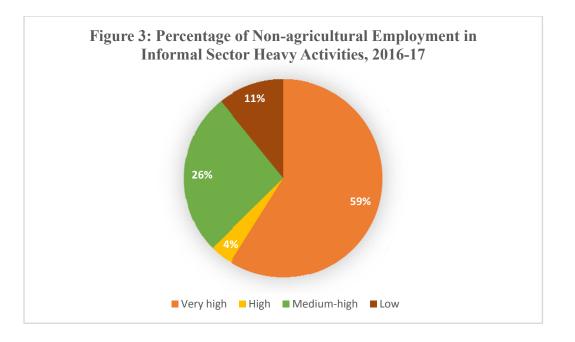
Very high: Over 80 per cent informal

High: 70-80 per cent informal

Medium-high: 60-70 per cent informal

Low: Below 60 per cent informal.

Figure 3 shows the proportions of non-agricultural employment in the categories mentioned above – ranging from sectors with very high informal sector employment to those with low informal sector employment. One can see that nearly 62 per cent of the urban workforce is engaged in sectors with "very high" or "high" proportion of informal employment.



Source: Constructed by the authors using data from the Labour Force Survey. See text for explanation of the method used.

#### An estimate of job loss during the period of shutdown

In the absence of any official data on how the COVID crisis is affecting the employment and labour market situations in the country, an estimate has been made on the basis of certain assumptions.

Assumptions made:

- i Work in most urban economic activities came to a standstill during the shutdown period. So those who are employed on a daily basis, or on precarious contracts, were without jobs.
- ii In the above context, we take note of the number of people engaged as day labourers, e.g. in construction, informal service, and transport as well as the numbers in petty self-employment in retail trade, food service, repairs, etc.
- iii Those engaged in organised manufacturing would be able to go back to their existing jobs and lay-offs would be limited to about ten per cent of their workforce.
- iv Based on data from the 2016-17 labour force survey, the following are projected (for 2020) number of "employees" in selected sectors that are likely to have been hit hardest:

Sectors	Proportion employees employment	(%) in	Estimated number employees (million)	of
Construction	80		2.75	
Transport	25		1.32	
Trade	20		1.75	
Accommodation and food services	30		0.342	
Total			6.16	

v Estimated numbers of "day labourers" (using the proportion of employees from the LFS 2013) are as follows:

Sectors	Percentage	Estimated number of day labourers (million)
Construction	100	2.75
Transport	50	0.65
Tarde	50	0.90
Accommodation and food	50	0.17
Total		4.47

- vi The number of the self-employed in urban areas is 6.05 million of which 85% (i.e. 5.19 million) are informally employed.
- vii Assuming that 10% of those employed in the manufacturing sector have been laid off, the number works out to be about 0.9 million.

The total number of workers who may have lost their jobs: Total of (v) + (vi) + (vi) listed above. That gives us: 4.47 + 5.19 + 0.9 = 10.56 (million).

#### 4.2 The cyclical effect of economic downturn: some projections for 2019-20

Projections on employment have been made in order to estimate the probable loss of jobs due to decline in economic growth caused by the measures adopted to fight the COVID crisis. In order to do so, first, estimates were made of what would have been total employment and unemployment in the absence of COVID crisis – assuming that GDP growth would have been 8.2 per cent as projected earlier by the government.

Next, similar estimates were made using the government's revised growth target of 5.2 per cent. A comparison between the two gives us the quantitative estimates of job loss that is taking place and the rate of unemployment in 2019-20. The alternative assumptions, under which projections of unemployment have been made, are as follows:

*Labour force*: Two alternative figures for growth of labour force have been used: (i) The actual growth between 2015-16 and 2016-17 (2.25 per cent) – as has been obtained from the labour

force surveys of those years; and (ii) labour force growth projected by the BBS for 2016-2031, which is 2.06 per cent per annum.

*Employment*: The methodology for projections is described in Annex 1. The basic difference between the two projections is in the amount of employment that would be generated in the agriculture sector. Two assumptions made in that respect are: (i) Employment in the sector would decline at the same rate as observed between 2015-16 and 2016-17; and (ii) the rate of decline in employment in the sector would be lower by 1 million. The latter assumption has been made in order to allow for the possibility that the sector will automatically play as the sector of refuge for a large number of those who may return due to loss of livelihoods in the urban area.

The rates of unemployment derived from the projections of employment and labour force are presented in Table 2. The main points to note from this table are as follows.

- As a result of the COVID-affected decline in GDP growth, the rate of unemployment could be between 6.74 and 8.71 per cent depending on which of the assumptions mentioned above are used. Comparing these figures with the unemployment rate of 4.3 per cent in 2016-17, it can be seen that the rate of unemployment could double.
- In our projections, the rate of unemployment in 2019-20 in the absence of COVID and decline in GDP growth would have been between 3.73 and 5.71 per cent. If the rates of unemployment in the COVID-affected situation are compared to these figures, a significant rise in unemployment can be seen.

	(%) for 2019-20		(%)for2019-202019-20 with COVID-affeassumingnoCOVIDGDP growth (5.2%)		OVID-affected
	P 1	P 2	P 1	P 2	
Labour force growth observed	5.71	4.26	8.71	7.25	
between 2015-16 and 2016-17					
Labour force growth projected	5.21	3.73	8.22	6.74	
by BBS for 2016-2031					

 Table 2: Alternative Projections of Unemployment, 2019-20

<u>Note</u>: (i) See Annex 1 for a description of the methodology of employment projection and derivation of the unemployment rates. (ii) P 1: projection of employment based on the assumption of decline in agricultural employment at the rate observed between 2015-16 and 2016-17; (iii) P2: projection of employment based on the assumption of a slower decline in agricultural employment than observed between 2015-16 and 2016-17.

Projections have been made of employment in broad sectors -- viz. agriculture, manufacturing, construction, and services -- in order to see the extent of job loss taking place in them. The

results are presented in Table 3. The main points that emerge from this table can be summarised as follows.

- The total number of jobs lost is likely to exceed 2 million, which is 3.14 per cent of total employment under the no-COVID scenario.
- In terms of absolute numbers, the service sector is likely to see the highest number: 1.23 million.
- The manufacturing sector is estimated to have lost over half a million jobs 5.5 per cent of its no-COVID employment.

	2016-17 (Actual – LFS)	Projection for 2019-20 without COVID (GDP growth 8.2%)	Projection for 2019-20 (with COVID- affected GDP growth 5.2%)	Job loss (million)	Job loss as percentage of without COVID projection
	(1)	(2)	(3)	(4) = (2) -(3)	(4) as % of (2)
Agriculture	24.7	22.55	22.55	0	
Manufacturi ng	8.8	10.31	9.74	0.57	5.55
Construction	3.4	3.91	3.70	0.21	5.37
Services	23.9	27.22	25.99	1.23	4.52
Total	60.8	63.99	61.98	2.01	3.14

#### Table 3: Projections of Employment by Broad Economic Sectors 2019-20 (Million)

Note: Figures for output growth in various sectors have been worked out by using the sectoral employment elasticity for the period of 2010 to 2016-17 (Annex Table A-1) and the three-year average of growth rates for the sectors (for column 2).

Source: Authors' projections using methodology described in the text and Annex

Projections of job lob loss have been made separately for rural and urban areas and for the urban informal sector, and the results are presented in Table 4. Two points are worth noting in this regard: First, job loss has been much higher in urban areas compared to rural areas. Second, much of the job loss in urban areas has been within the informal sector.

	2016-17	Projection for 2019-20 (Without COVID, GDP growth 8.2%)	2019-20 (COVID-		Job loss as percentage of (3)
	(1)	(3)	(4)	(5)	
Rural	43.9	45.20	44.70	0.50	1.11
Urban	16.9	20.18	18.93	1.25	6.19
Urban informal	13.09	15.92	14.84	1.08	6.78

 Table 4: Projection of Employment and Estimate of Job Loss in the Urban and Urban

 Informal Sector

Source: Authors' projections using the methodology described in the text and Annex.

# 5. How Has Employment in the Ready-made Garment Industry been Affected by the COVID-induced Economic Crisis?

The ready-made garment (RMG) industry is a major employer, especially within the manufacturing sector, and it has been severely affected by the fall in global demand due to the pandemic-induced shutdown in various importing countries. Thus, it is important to examine what is happening to employment in the industry. The present chapter examines the possible loss of jobs in this industry as a result of the economic crisis.

As there is no precise information on the total number of workers employed in the sector, the chapter starts by presenting various figures that are available in this context. It then presents "estimates" of possible job losses that may have been caused by the fall in exports due to the pandemic. The last section of the chapter looks at the measures undertaken by the government to assist the sector in facing the crisis.

#### 5.1. Number employed and growth of export: pre-COVID situation

Over the past several decades, Bangladesh's RMG industry has emerged as a major engine of its growth, source of export (and hence source of foreign exchange earnings), as well as source of employment for the surplus labour in the country. As this industry is almost entirely exportoriented, and the disruption in the export market that occurred with the outbreak of COVID-19 in various parts of the world is having an adverse effect on it. Although the issues faced by the industry are multi-faceted, the focus in the present analysis will be only on employment and other related aspects.

We start by asking what the situation of the industry was and what the total number of those employed within the industry was before the COVID crisis. Then we address questions regarding how the crisis affected the industry, and the extent to which it has been able to make use of the government's policy support.

First, the number employed: There is a degree of uncertainty about the total number of workers employed in the RMG industry, as it appears from the following numbers.

- For some years (up to the middle of 2017), the BGMEA's website showed employment figures between 2011-12 and 2015-16 unchanged at 4 million<sup>9</sup>. But when the site was visited again in December 2019, it was noticed that the employment figures are no longer shown at all.
- A study by the Centre for Policy Dialogue (CPD, 2018) identified a total of 3,856 factories that were in operation in October-November 2016 with almost 3.6 million workers, of which about 53 per cent was female and 47 per cent male.
- Referring to the *Quarterly Labour Force Survey* of 2015-16, ADB (2020 b) mentions a figure of 4.1 million.
- The BGMEA President mentions a figure of 4.4 million (with 80 per cent being women)<sup>10</sup>.

As for growth of exports of RMG products, a recent analysis (MOLE, 2020) shows fluctuations throughout the history of the industry. For example, compared to the periods of 2004-05 and 2010-11, growth rate fell to about half during the following five years. Likewise, there was hardly any growth during 2016-17. But there was a rebound during the following two years. The value of export per worker has grown steadily -- over 7 per cent per annum between 2004-05 and 2015-16 -- thus implying some growth in labour productivity.

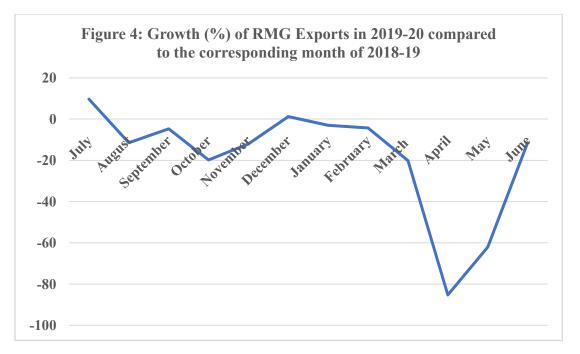
A look at the monthly figures for 2019-20 compared to the corresponding months of 2018-19 (Figure 4) brings about an interesting fact. The industry was not doing well in exports even before it was hit by the COVID crisis. Out of the first eight months of the fiscal year (July to February), growth of exports was positive only for two months (July and December, 2019). This indicates that the health of the industry was not well to begin with. In the absence of research on the possible reasons for the observed decline in export growth, this has been ascribed to factors like the strength of the local currency, competitive advantage received by competing countries (e.g. India and Vietnam) from their weak currencies, excessive dependence on a narrow range of products, etc.

#### 5.2. Impact of the COVID crisis on exports and employment

While negative growth of exports continued through January and February 2020, the real hit came in March from the shock created by the COVID crisis. In Section 2, mention has already been made of the cancellation of orders by buyers and brands in the wake of the global crisis caused by the pandemic. The situation went from bad to worse during the subsequent months (Figure 4), resulting in an overall negative growth of 18.45 per cent for the fiscal year as a whole.

<sup>&</sup>lt;sup>9</sup> Ref. https://www.bgmea.com.bd/home/pages/TradeInformation (Accessed on various dates including on 28 June 2017).

<sup>&</sup>lt;sup>10</sup> http://www.bgmea.com.bd/home/about/MessageFromBGMEAPresident (Accessed on 2 July 2020).



Source: Constructed by the author using data from the BGMEA website. Data for June is from a *The Daily Star* report from 2 July, 2020.

In a press release issued on 6 June, 2020, the BGMEA mentioned that, in two months (presumably April and May), 348 factories had to close down, and that the remaining 1,926 are operating at lower-than-full capacity. That implies that, although, officially, workers may not have been laid off, those who were working in the factories that were shut down must have lost their jobs. In the absence of any further information, it is not possible to say how many workers were affected by such factory closures<sup>11</sup>. Furthermore, in June, media houses throughout the nation continued to report on worker layoffs . As there is no official information on these aspects (i.e. closure of factories, workers affected by closures, and layoff of workers from factories that are still operating), it is difficult to say with confidence how many workers have already lost their jobs and how many more are likely to be affected in the near future.

But one can at least draw some conclusions from existing figures. From the CPD figures on the number of factories (3,856) and the number of workers (3.6 million), the average number of workers per factory turns out to be 933. Closure of 348 factories would then imply that 324,684 workers may have lost their jobs.

An alternative estimate has been made by the authors of the present report on the basis of some assumptions. Since the RMG industry is almost entirely export-oriented, a one-to-one correspondence can be expected between export and production. That would imply that, in 2019-20, output also declined by 18 per cent. If the elasticity of employment with respect to

<sup>&</sup>lt;sup>11</sup> Trade unions point out that frequent non-compliant lay-offs and retrenchments took place without legally mandated severance payments. For further details on trade union perspectives on this and related issues, see BRAC-BIGD (2020).

output/export growth is assumed to be about  $0.55^{12}$ , export decline of 18.45 per cent can be expected to result in employment decline of about 10 per cent. Depending on whether the base figure is assumed to be 3.6 million or 4.4 million (as mentioned above – CPD estimate and BGMEA President's statement respectively), the job loss would be 360,000 or 440,000.

In summation, the estimates of job loss in the RMG industry during 2019-20 are as follows:

Estimate 1 (based on CPD estimate of the number of factories and number of workers): 324,684

Estimate 2 (based on elasticity of employment growth with respect to export growth): 360,000 to 440,000

Even if one does not take the above figures literally, it can be concluded that the decline in export growth for the RMG sector that has taken place up to now may have resulted in a **job loss** of about 400,000.

#### 5.3. Government's policy support: How effective has it been in preventing job loss?

The government responded to the COVID crisis by announcing a package of policy support measures aimed at supporting enterprises as well as providing a safety net to the poor. The measures were announced on different dates, and one of the earliest to be announced was an allocation of Tk5,000 crore (about US\$580 million) for export-oriented industries, with a stipulation that the money be used for providing wages and salaries of workers and employees. The money is supposed to be in the form of interest-free loans with a service charge of 2 per cent, and is expected to cover wages for three months.

In the BGMEA press release issued on 6 June (referred to above), it was mentioned that the monthly wage bill of the industry is Tk4,000 crore (about US\$470 million). It would, thus appear that, although the government's allocation of Tk5,000 crore was designed to assist all exportoriented industries to pay wages and salaries for three months, the amount was far from adequate<sup>13</sup>. Furthermore, the wages of the workers were to be paid directly to their bank/mobile financial accounts.

Although there have been media reports from time to time on the progress in making these payments, there were also reports of controversies over whether payments of full or partial wages would be made<sup>14</sup>, and whether the payment would be only for April. The authors of the present report are not aware of any consolidated report either by the BGMEA or the government

<sup>&</sup>lt;sup>12</sup> This was estimated using the export and employment growth figures for the period 1999-2000 and 2010-11.

<sup>&</sup>lt;sup>13</sup> A report by BRAC-BIGD (2020) estimates that this amount is about half of what is needed to cover three months' minimum wages of the workers in the sector.

<sup>&</sup>lt;sup>14</sup> For example, Jahan, et al (2020) reports workers getting 60 per cent of their April salaries. *The Daily Star* (https://www.thedailyst9ar.net/frontpage/news/rmg-workers-demonstrate-demanding-full-wages-190120) reported on 10 May that the government, on April 29, directed RMG factory owners to pay their workers 60 percent salary for April. The same report mentions that workers of factories in different industrial zones demonstrated demanding full payment of their gross salaries for April as opposed to 60 percent.

on this issue. While uncertainties continued about the duration and amount of wage payment, there were reports in the media that layoffs of workers had already started in May<sup>15</sup>.

## 6. Impact on Women's Employment

The rise of women's participation in the labour force and employment has contributed a lot to Bangladesh's economic growth and development within the last two decades. Sustainability of that economic growth also depends crucially on women's participation in the labour market. Women's employment is important not only from an economic point of view but also for their empowerment and gender equality as a whole.

While the decline in economic growth during the COVID-19 pandemic has affected the overall employment situation, the impact on women's employment may prove to be far more severe. That, in turn, is likely to affect any progress made on gender equality in an adverse manner. In fact, COVID-19 is causing disruptions in many aspects of women's lives and is accentuating gender inequality if anything. The present section looks at the impact on women's employment directly and indirectly and on gender differences in this context.

The section begins with a brief review of how much gender equality has progressed in terms of employment and the labour market during the pre-COVID decades. It will discuss the extent of vulnerable employment and gender difference in the context of the outbreak of COVID. Specific attention will be given on the impact of COVID-19 on women's employment through the loss of educational opportunities and through the supply side of the labour market. The discussion will also review the excessive hours of work of women and its possible relationship to COVID-19.

# 6.1 Overview of past progress of gender equality in employment and labour market in Bangladesh

During the last two decades preceding the pandemic, Bangladesh has made significant progress in terms of gender equality in the labour market. The important dimensions of the progress are mentioned below as there is need for alertness to restore these positive trends and overcome the damages caused by the pandemic:

- a From 2000 to 2017 there has been an increase in female labour force participation. This has resulted in a decline in the gap between male and female labour force participation rate (LFPR) (Figure 5). As shown in Table 5, LFPR is higher among those with education above secondary level (Rahman and Islam, 2019).
- b In between 2006 and 2017, gender difference in wage/earning declined significantly. In 2006, women's wage was only 66 per cent of male wage. In 2017, female earning was 90 per cent of male earning (LFS 2006, 2017).

<sup>&</sup>lt;sup>15</sup> In early June, the President of the BGME said that a number of workers in the garment industry may lose jobs although she was not specific on this. This was quoted in a report of the *Daily Star*, June 5, 2020. https://www.thedailystar.net/business/news/good-number-rmg-workers-may-be-terminated-jobs-rubana-huq-1909005. Vernacular daily, *Prothom Alo* reported on 27 June 2020 that during the first three weeks of June, over ten thousand workers have been retrenched from the RMG industry.

c Women's participation in paid employment has increased, and their share of employment in some of the modern sectors has seen a large shift. These include manufacturing, education, health, ICT, accommodation and food, and financial services (Rahman and Islam, 2019).

Young women's participation in paid employment, especially in the RMG sector, has led to an accelerated growth in this export-oriented sector. For taking up RMG sector employment, young women -- including unmarried women -- have migrated from villages to urban areas.

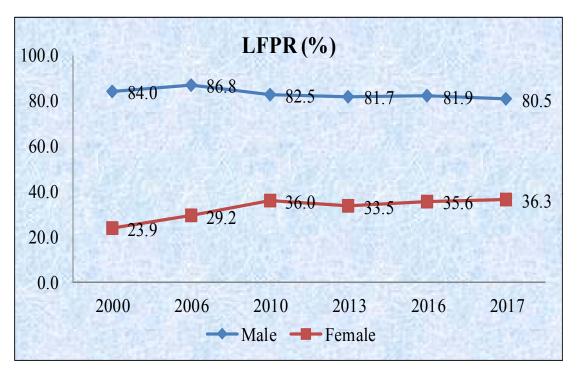


Figure 5: Male and Female LFPR: 2000 to 2017

Source: BBS: Labour Force Survey (various years).

Education group	Female LFPR (%)
No education	38.1
Up to primary	39.7
Five to less than SSC	34.0
SSC	25.9
HSC	31.9
Tertiary	56.9
Others	41.8
All	36.3

 Table 5: Female LFPR (15 years & above) by Education and Age Group, 2016-17

Source: Estimated from unit records of the Labour Force Survey 2016-17 data.

#### 6.2 Sector and type of women's employment and possible impact of COVID-19

As has been mentioned in the earlier sections, the impact on employment is likely to be linked to the exact type of employment being discussed. Physical distancing and shutdown measures adopted in response to COVID is likely to have greater adverse effect on those involved with non-agrarian activities and in the informal employment. Therefore, one should consider the sector and type of employment in which women were previously engaged.

Section 3 identified the level of risk when it comes to sectors. To simplify the male-female comparison, this section classifies the medium-to-high risk sectors as vulnerable sectors. While section 3 treated agriculture as one sector, here it is sub-divided into crop and non-crop parts, the latter being treated as vulnerable employment. This can be useful for male-female comparisons because the shares of women's and men's employment in the non-crop sector are different. The sector "household as employer" which consists of domestic help, personal care provider, etc is considered as vulnerable because these workers may be especially responsible for spreading the virus.

Vulnerable Sectors		Sex
	Male	Female
Manufacturing	13.99	15.40
Wholesale and retail trade, repair of	19.03	3.36
Transportation and storage	11.93	1.10
Accommodation and food service activities	2.31	0.99
Human health and social work activities	0.68	1.16
Arts, entertainment and recreation	0.11	0.09
Other service activities	3.34	5.37
Activities of households as employer	0.65	5.01
Sub-total	52.04	32.48
Non-crop agriculture (estimated)	8.00	30.00
Total	60.04	62.48

#### Table 6 Share (%) of Total Employment in Vulnerable Sectors by Sex, 2016-17

Source: Calculated from Labour Force Survey, 2016-17

Table 6 shows the extent of the male-female difference in vulnerable employment, and the difference is observed to be small: 62 per cent of all employment of women are in vulnerable sectors, while the share is 60 per cent among men.

It should, however, be pointed out that the nature of vulnerability may be different for men and women because the mode of employment is different for them. While a large proportion of paid workers are likely to face outright unemployment, the self-employed and family workers, in most cases, will try to keep the economic activity running even in the face of decline of productivity and returns. In this context, it is worth noting that 43.6 and 31.2 per cent of men and women, respectively, are in paid employment.

In this context, women's employment in the RMG sector needs special attention. Section 5 has already discussed the extent of job loss in the RMG sector. According to various studies, the share of women in this sector ranges between 55 to 80 percent. Moreover, women are highly represented in unskilled or semi-skilled jobs. Therefore, women are more likely to lose jobs when the sector tries to maintain the pace of growth by raising capital intensities which would result in higher demand for skilled workers even after the pandemic.

#### Vulnerable employment of women of younger and aged groups

Bangladesh is currently going through a phase of high-share youth population compared to higher age groups. The country expects to reap the demographic dividend for its economic growth, which would involve the employment of the younger population in more dynamic sectors. Therefore, protecting their jobs in those sectors can be critical at a period of cyclical or unexpected downturn of the economy as has currently occurred. Therefore, a comparison of the situation of younger and older women in terms of vulnerable sector can provide guidance for caution. Relevant data has been presented in Table 7.

	Age 15-2	9		30 & abo	ove	
Sector	Male	Female	All	Male	Female	All
Agriculture, forestry, and						
Fishing	21.78	46.71	30.03	36.29	65.74	45.02
Manufacturing	21.73	25.46	22.97	10.91	10.69	10.84
Construction	10.76	1.43	7.68	6.24	1.34	4.79
Wholesale and retail trade,						
repair of	17.59	3.42	12.90	19.61	3.33	14.79
Transportation and storage	12.76	1.24	8.95	11.60	1.04	8.47
Accommodation and food						
service activities	2.54	0.66	1.92	2.22	1.14	1.90
Public administration and						
Defence	1.49	0.64	1.21	2.15	0.81	1.75
Education	3.26	6.87	4.45	2.99	3.82	3.24
Human health and social						
work activities	0.53	1.25	0.77	0.74	1.12	0.85
Activities of households as						
Employer	0.62	3.59	1.60	0.66	5.68	2.15

 Table 7: Distribution of sector of employment by age group by sex

Source: Estimated from Labour Force Survey 2016-17 data

Manufacturing, education, health, and social work are the sectors where younger women's share is higher than that of older women. Table 6 above and earlier discussion in Chapter 3 mention manufacturing, health, and social work are vulnerable employment. Therefore, extra caution is required so that the employment of young women (as well as young men) in these sectors is maintained without exposing them to health risks.

#### Informality and vulnerability of employment of women during pandemic

So far, the discussion of the impact on employment has identified some vulnerable sectors. At the same time, one must also look at the type of employment -- formal vs informal -- to obtain an idea about vulnerable employment within each sector. Informal employment is defined as including those where the contract is informal or unwritten and there is no provision of any social protection benefits; i.e. compensation in case of job loss due to the employers' inability to run the business or due to justified reasons for the worker leaving the job. Thus, it is easily understood that the informal employment is risky and, in times of an economic downturn, the risk of job loss is greater.

Data on the share of informal employment among male and female workers is presented in Table 8. The data shows that, on aggregate, the share of informal employment is much higher among women compared to men -- these shares are 92 per cent and 82 per cent among women and men, respectively. Even in sectors like manufacturing, health, and accommodation services -- which are supposed to consist of formal enterprises -- the extent of informality is overwhelming. Moreover, in each of the sectors, the share is higher for women. There is no sector where women find equal treatment in terms of the extent of formal employment. Therefore, during and after the pandemic, job loss will be larger for women and the possibility of receiving any retrenchment benefits is very low.

Industry	Share (%)	Share (%)
	Male	Female
Agriculture, forestry, and fishing	94.8	96.1
Manufacturing	87.3	94.2
Construction	91.7	94.7
Wholesale and retail trade, repair of motor vehicles	61.7	75.4
Transportation and storage	92.9	81.1
Accommodation and food service activities	74.9	88.2
Information and communication	73.2	81.3
Financial and insurance activities	52.9	66.1
Professional scientific and technical	51.0	63.6
Administrative and support service activities	64.3	87.5
Public administration and defence	25.0	33.2
Education	55.3	65.2
Human health and social work activities	57.1	69.1
Arts, entertainment, and recreation	90.4	79.4
Other service activities	77.3	85.5
Activities of households as employers	98.6	97.3
Total	82.1	91.8

Table 8: Informal Employment as a Share of Total Employment (Aged 15 or Older), by Industry and Sex

Source: Labour Force Survey, 2016-17.

A recent study (UN WOMEN and WOMEN COUNT 29 April, 2020) shows that, among women and men employed in the informal sector, 25 and 27 per cent have lost jobs since the start of the pandemic. In addition, 24 and 16 per cent among women and men worked lower hours during this period. Even if the same worker is absorbed in the same job, they will -- in all likelihood -- be deprived of the salary of the period for when they were not in employment. Moreover, even after the re-opening up of the economy, the curtailment of hours may continue as profitability is likely to be low.

# <u>6.3 Impact on women's employment through loss of education opportunities and through the supply side of the labour market</u>

#### Impact of COVID19 on education and young women's employment prospects

The vulnerable sectors that are important areas for women's employment -- e.g. manufacturing, health, trade, accommodation -- require education. Data presented in Rahman and Islam (2019) show that the probability of employment in the education and health sectors increases when the level of education is secondary or above<sup>16</sup>. Therefore, when employment growth in these sectors suffer due to a pandemic, educated women's employment prospects will be at risk.

<sup>&</sup>lt;sup>16</sup> The study uses regression analysis and the coefficient of this variable is significant.

COVID has led to the closure of educational institutions. Programmes have been adopted to impart education through lectures delivered through TV broadcast and online courses at private universities. The extent of learning from these lectures cannot be a substitute for normal classroom teaching, especially for younger children. Many students from low-income households, especially in the rural areas and remote regions, do not have TV or internet facilities in their households and will be deprived of the opportunity. Internet facilities, even if they exist, are often not as strong and reliable.

Low-income households that are going through income and job loss during this period cannot afford to spend on the education of their children and would not be in a position to hire private tutors. In such a situation it is likely for a bias to form in favour of investment on the education of the male children, as the parents expect the male children to be able to support them in their old age. Such decisions will ultimately pave the way for gender inequality in educational attainment.

The six months of closure (or more) will obviously affect students' learning and the overall quality of education on offer. This will worsen the already low level of effective learning of school children, compared to the norm, at each grade of school. This may raise the drop-out rates of children as has already happened in other developing countries. Studies on India provide estimates of such dropouts. "It is estimated that nearly 10 million secondary school girls in India could drop out of school due to the pandemic, putting them at risk of early marriage, early pregnancy, poverty, and violence" (Global Citizen, July 2020).

The situation is likely to be worse for the female students who may be dragged into performing housework as demand for housework has risen during the COVID period. Child marriage may witness a rise, as parents falsely realise that there is no better alternative for their daughters since her education came to a halt. These forces, along with the loss of jobs among young, educated women in the vulnerable sectors, would have a discouraging impact on female LFPR and thereby on education. This will set forth a vicious cycle of "not enrolled in schools --> low education --> early marriage --> low labour force participation --> low income and not enrolled in schools".

#### Prospect of women's employment and the supply side

The prospects of women's employment in the immediate aftermath of COVID will depend on the growth of the economy, i.e. the demand side. In addition, it will also depend on the supply side. The post-COVID situation is likely to be characterised by changes in the supply of labour and it would not be business as usual. If the supply of male workers swells, they will get priority in the labour market and the prospect of women's employment will be worse than the pre-COVID situation. Women are likely to be pushed to jobs of lower quality and lower wage.

It is very likely that this type of swelling will occur. A shift in the supply curve of the male, as well as the female, labour force will be due to the following reasons:

- a School dropout rate is likely to rise after COVID as young people lose half to one year of school. This is more likely to occur among low-income households.
- b Young people who may have entered the labour force in 2020 have not done so as they saw little prospects of new jobs. They will enter the labour market as soon as job growth takes place.

c There will be additional supply in the domestic labour market since the flow to overseas labour markets has come close to a halt, and overseas labour demand may not pick up anytime soon. Each year about 0.5 to 1.0 million have migrated for overseas employment during the last few years. As a consequence, domestic labour supply was much lower (Rahman 2020a, 2020b). With a much lower prospect of overseas employment in the coming months and years, the supply in the domestic market will be higher, raising the competition for jobs.

#### 6.4 Women's household work and excessive hours of work during the pandemic

An important issue in discussing quality of employment is the excessive hours worked by women. Hours in economic activities is, on average, lower among women compared to men as reported by all recent rounds of LFS (respectively 38 and 52 among women and men in 2016-17 round of LFS). When the hours of care work and domestic chores are added, the total hours worked are quite close for men and women (Table 9).

Sex	Persons employed		
	Hours in employment	Hours of fa service	amily Total hours
Male	52	8	60
Female	38	21	59
Urban male	55		63
Urban female	47		68
	Not employed		
Male		11	11
Female		28	28

Table 9: Working	hours in amploy	mont and in fa	mily uso sorvi	oos by soy
Table 7. WOLKINg	nours in employ	ment and m la	miny use servi	LES DY SEA

Source: BBS: Labour Force Survey, 2016-17.

This has special implications for the situation in the COVID period. During this period, the hours of domestic work for women would increase since all family members, including children, are staying home. In addition, most households that used to hire domestic help have let them go. Therefore, the total working hours will rise for women. Women who are continuing their income-earning activities will also be subjected to excessive physical and psychological strain. Without time use surveys this cannot, however, be quantified.

## 7. Overseas Employment

Overseas employment plays a very important role in the continued economic development of Bangladesh in various ways. From a paltry six thousand in 1976, some seven to ten lakh people have been going abroad for employment in recent years. These, of course, are *gross* outflows and don't represent the *net* outflow because nobody seems to know how many workers return every

year. The government appears to assume that, even taking returnees into account, around five lakh people find employment abroad every year.

There are at least three ways in which overseas employment has contributed to the success story of Bangladesh's development:

- By providing a source of employment and relieving pressure on the domestic labour market;
- By providing low-income households a source of higher income, and thus, a ladder for getting out of poverty; and
- Remittances playing an important role in building the foreign exchange reserve and in supporting the current account balance of the country.

The present chapter first looks at the recent trend in overseas employment and how it is being affected by the COVID crisis. Then it examines the situation regarding remittances.

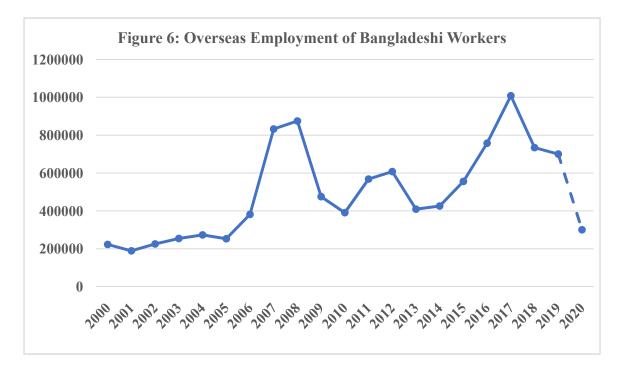
#### 7.1. The trend in and the impact on overseas employment

The trend in the overseas employment of workers from Bangladesh can be seen in Figure 6. It is clear from this figure that the numbers fluctuate a good deal, even though there is a general upward trend. After reaching a peak (of more than a million workers with overseas employment) in 2017, there was already a downward trend during 2018 and 2019.

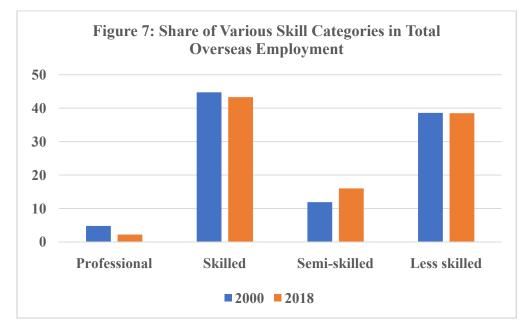
Not only has the number of workers with overseas employment increased over time, if one looks at these numbers in relation to (i.e. as a percentage of) the new entrants to the country's labour force, one would see that this source has grown in importance. This has grown from 27 per cent during 2006-10 to 45 per cent during 2016-18 (Rahman, 2020).

A few characteristics of the overseas employment of Bangladeshi workers are worth noting. First, they are mostly equipped with low levels of skills, and there has not been much change in that respect over the past two decades or so (Figure 7). Second, in terms of education, a vast majority -- almost three-fourths -- have less than secondary level of education (Figure 8). Third, the destinations of migrant workers are concentrated in eight countries: Bahrain, Kuwait, Malaysia, Oman, Qatar, Saudi Arabia, Singapore, and the UAE. Out of these countries, the ones in the Middle East are dependent on oil, and their demand for expatriate workers fluctuate considerably. Out of them, Saudi Arabia has been hit hardest by the COVID pandemic; and, as a result, has not only stopped recruiting new workers but is also sending a large number of expatriate workers back.

Although there is no data on overseas employment after February, 2020, one can surmise that very few were able to get such jobs. Moreover, periodic media reports indicate that a large



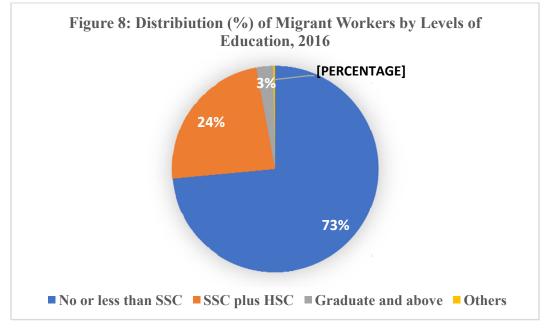
Source: Constructed by the authors using data from BMET. The figure for 2020 is the authors' projection.



Source: Constructed by the authors using data from BMET

of number of workers are returning from abroad<sup>17</sup>. Given the global economic situation, it seems that the situation is likely to continue until economic recovery starts in the labour-receiving countries. If the current forecasts of global economic growth made by the IMF and World Bank are any indication, it can be assumed that the tap of overseas jobs is unlikely to re-open until about the last quarter of this year or even early 2021.

In that scenario, the number of such jobs for the whole of 2020 is unlikely to be more than three lakhs (the total for January and February was 129,127). If one takes into account the number of workers that are likely to return because of job loss, the net outflow may turn out to be insignificant. So, the current year (2020) is likely to be a lost year as far as overseas employment is concerned. What was once a reliever of pressure on the domestic labour market is going to turn around and play the opposite role if anything.



Source: Same as in Figure 7.

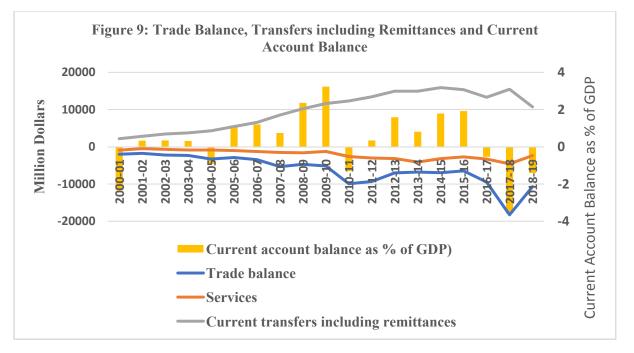
<sup>&</sup>lt;sup>17</sup> For example, *Bonik Barta* (June 17, 2020) reported that Saudi Arabia alone may return 12 lakh workers during 2020. See, also, *The Daily Star*, June 18, 2020, https://www.thedailystar.net/backpage/news/covid-19-fallout-14000-migrant-workers-return-empty-handed-april-1-1916249

### 7.2. The impact on remittances

Coming to remittances, the adverse effect of a decline in overseas employment are not yet visible. Although there were some signs of a decline in the flow in some months (April and May), there was a rebound in June, and the growth of remittances for 2019-20 as a whole exceeded that of previous years. It would, however, be important to keep a close eye on the trend in the future because the current flows may have been due to some transient factors that may not continue in the medium term.

Decline in remittances may result in a decline in incomes and consumption of receiving households, which, in turn, may have a negative multiplier effect on output growth and employment.

The trade balance (i.e. the balance of exports and imports) of the country is almost always negative. It is the current transfers -- in which remittances are by far the major component -- that help make up for the negative trade balance. As a result, the current account balance has been positive in most of the years during the past couple of decades (see figure 9).



Source: Constructed by the author using data from Government of Bangladesh, Ministry of Finance: *Bangladesh Economic Review* (various years).

But in between 2017-18, there was a sudden steep increase in imports; and as a result of that spike in imports, the current account balance had a huge deficit that year. Then there was a decline in the inflow of remittances during 2018-19 which led to a continuation of that deficit.

With the sharp decline in exports that the economy is currently experiencing, unless imports also fall simultaneously, trade balance may worsen further. In fact, during the July-February period of 2019-20, exports declined by 4.79 per cent compared to the corresponding period of the previous

year. Not unexpectedly, imports also declined – by 4.44 per cent. But if projections made by the World Bank of a 22 per cent decline in remittances turn out to be true, the impact on current account balance is likely to be quite severe.

What policy measures can be undertaken in the face of the situation mentioned above? On the employment front, the issue is linked to that of overall employment strategy that the country should be pursuing; but this is hardly the place to get into that. However, a word or two may be said about the large number of workers who are already returning and are likely to continue doing so in the coming weeks and months. A full-fledged strategy is required to extend assistance to them in getting re-integrated into the economy. Given the precarious situation of the economy, it may be more practical to think in terms of helping them start their own enterprises.

*ProbashiKallyan* (Expatriate Welfare) Bank has to come forward and play its due role, especially by providing credit support to those interested in starting enterprises. However, the speed and ease with which credit is made available would be key to the success of such a programme. Such an effort is likely to be a win-win proposition for the economy and the individuals concerned. If properly integrated, the returning workers should be able to contribute to the economy by creating their own enterprises and by generating some employment for others as well.

# 8. Conclusions and Recommendations

### 8.1. Conclusions

Several conclusions can be drawn from the findings and analysis of the present study. First, the unemployment situation appears to have been dire during the shutdown period. Even taking into account the normal functioning of the economy for much of the period between 2019-20, the unemployment rate seems to have increased substantially. This needs to be put in the context of the country's performance with regard to employment.

Open unemployment rates recorded from the labour force surveys of the country are usually quite low (have been in the range of 4 to 4.5 per cent during the past two decades) which is basically due to the definition adopted and the absence of any unemployment benefits. A sudden and sharp rise in this rate can have serious, adverse effects on the lives of those dependent on wage labour – especially casual labour engaged on a daily basis, unless measures can be adopted to provide an effective safety net.

The other point to note is that, despite impressive growth performance of the economy before the pandemic, the performance on the employment front was not nearly as such. Moreover, as noted in various studies, the employment performance had been deteriorating over time. So, the country was already facing a serious challenge vis-à-vis the SDG goal of attaining full and productive employment and decent work for all by the year 2030. With the single-minded pursuit of a growth-focused strategy, there was very little attention paid to reversing the trend and making any serious attempts at attaining the goal. Now, with the pandemic causing an economic crisis and the economy skidding off the growth path, the challenge on the employment front will be much harder.

Second, in recent years, the country has become increasingly dependent on two sources -- the RMG industry and international migration -- for both employment and foreign exchange earnings. The current economic crisis has hit both these sources hard. The importance of economic diversification, and diversification of the sources of foreign exchange, has long been pointed out by analysts (including the authors of the present report). The impact of the current crisis on these two pillars of the economy has, again, demonstrated how critical it is to adopt strategies for a more balanced growth.

Third, despite the impressive performance with respect to economic growth, the labour market is still charactersed by a high proportion of employment in the informal economy. Employment is not only concentrated in the informal sectors of the economy, a large proportion of jobs in the formal sectors is also of an informal nature (charactersed by the precarious nature of contracts and the absence of social protection). The current crisis has shown how severely this segment of the workforce can be hit by a sharp economic downturn.

Fourth, Inequality in the distribution of income had been growing during the past decade or so. With workers in the informal economy being hit harder than those in the formal segments, the outcome is going to contribute to a worsening of the situation in this respect.

Fifth, although there has been some progress with regard to women's participation in the labour force and diversification of their sectors of employment, while also having reduced gender inequality in wage, such gains are in danger of being lost due to the adverse effects of the economic crisis. Unless measures are adopted with a specific focus on the gender dimensions of the impact, the gap may widen.

### 8.2. Recommendations

Every crisis creates opportunities, and the present one should be no exception. It has opened up the possibility of asking whether it would be desirable to go back to the pre-crisis pattern of growth or whether effort should be made towards a more inclusive recovery and growth with due attention paid to social aspects, especially employment. A stronger focus on employment would be necessary not only to attain goals that have been set before the nation (e.g. in the country's five-year development plans and the SDGs) but also to prevent a reversal of the trend in poverty and risk further deterioration in the distribution of income.

### Recommendations for addressing the employment challenge during economic recovery

As the economy has not yet come out fully from the immediate effects of the shutdown, it is recommended that **a two-phase strategy** be formulated for addressing the employment challenge:

- The **first phase** would be the time till the virus has been brought under a reasonable degree of control and economic activities have restarted without the constraints of a lockdown.
- The **second phase** should begin from the time when economic activities will have restarted fully. Medium-term and longer-term policies/strategies would need to be put in place for making growth more inclusive.

The basic objective of **policy for the first phase** should be to minimise the adverse effects on employment and the labour market and the hardship of those who are dependent on labour income. The primary focus should be on:

- Measures for quick revival of economic activities (without compromising on safety and hygiene in places of work) including speedy and efficient implementation of the government's economic recovery package;
- Special effort to ensure that petty businesses and micro and small enterprises can access the fund that has been earmarked for credit<sup>18</sup>;
- Efforts to save jobs through measures like sharing of work and temporary leave with part pay;
- Emergency employment programmes, especially for the poor who may lose jobs;
- Special attention to help the girls continue their studies and to prevent a rise in dropout during and in the immediate aftermath of COVID;
- A strategy for skill development for those who wish to move to income earning work,
- A strategy to extend assistance to the return migrants in getting re-integrated into the economy with particular focus on starting their own enterprise using the government's programme for them;

**Policy during the second phase** (i.e. for the medium term) should focus on remodelling growth with measures to make it employment-friendly. For that, it would be important to:

- Formulate and implement a full-fledged strategy for employment; and
- Include strategies for protection against unemployment and old age.

It may be noted in this context that the Five-Year development plans (especially the Sixth and Seventh plans) and annual budgets of the government do mention employment as one of the goals. They also mention broad strategies, e.g. export-oriented industrialisation for attaining the goal. But experience with plan implementation (even before the economic crisis caused by the COVID pandemic) has shown that actual achievement -- with respect to the employment goals -- has fallen far short of the goals.

Previous experiences with recovery from economic crisis in different parts of the world show that recovery of the labour market usually follows economic recovery with a certain lag period. Given the already precarious situation regarding employment and livelihoods of the poor people in Bangladesh, delay in the recovery of the labour market is going to increase their hardship. Hence the need for a strategy to ensure that jobs follow economic recovery closely.

Furthermore, the current experience of the country (as well as those of other developing countries in facing economic crises in the past) shows the critical importance of having in place an institutional system of social protection. In its absence, it is extremely difficult (if not

<sup>&</sup>lt;sup>18</sup> The Tk 2,000 crore credit guarantee scheme announced on 23 July is a step in the right direction.

impossible) to reach people with necessary support when a crisis hits them. Hence the need of the hour is to have a fully articulated strategy for employment with protection against loss of jobs and incomes integrated into it.

### Recommendations for improving the situation of female employment

Although the general policies for adopting a route of employment-intensive growth should help all groups, if past experience is any indication, the opportunities provided by fiscal and monetary measures may disproportionately benefit male workers and entrepreneurs with connections and influence unless these are specifically targeted at women and the weaker segments among them. Therefore, the fiscal measures announced by the government to counteract the adverse impact of COVID should specify the proportion of beneficiaries from various disadvantaged groups and for women. Similarly, steps for boosting enterprises through easy credit should give priority to female entrepreneurs, especially in the rural areas. Since cash transfer is provided through mobile financial services, there should be steps to encourage women to open their own accounts.

The sufferings of female workers in the health care sector and the RMG sector must be recognised, and steps should be taken to provide the following benefits:

- a Free health services, especially during pandemic;
- b Adequate provision of protection against COVID infection in places of work; and
- c Salaries to workers for periods of government announced lockdown.

The government may provide partial support to cover the expenses of these three measures. In fact, the government's benefit package already includes funds for payment of salary or part of it, and it would be important to ensure that they do not bypass women during the process of implementation.

In addition, labour-shedding must be kept at a minimum and must strictly follow the provisions of the Bangladesh Labour Law 2013. There should be close monitoring of this phenomenon, especially in the RMG units.

In the medium term, incentives provided to sectors should be linked to the share and growth of female employment, provision of suitable working conditions for women, and adherence to special provision of labour laws related to women's needs.

Education can play a catalytic role in improving the labour market outcomes for women. Special attention is needed to help girls continue their studies and to prevent a surge in dropout during, and in the immediate aftermath of, COVID.

Medium-term strategies for skill development are needed to create incentives for younger women (and men) with a focus on modern and dynamic entrepreneurship. Retraining facilities for retrenched RMG workers and providing them assistance for alternative employment should be a priority in the ongoing skill training programmes.

In addition, policy thrust must be on reducing the adverse impact on the already achieved gender equality in the labour market so that sustained progress can be made towards gender equality.

#### Role of stakeholders

It is basically the responsibility of the government to formulate and implement strategies for facilitating the quick recovery of the labour market and for making growth more inclusive. In that context mention may be made of the economic recovery package announced by the government to provide support in various ways. The basic assumption behind the support package seems to be that, once economic activities resume, employment will also follow. But the pre-pandemic growth experience (and the growth experience of many developing countries) show that this is not automatic. Unless specific attention is given to employment, both recovery and growth can be jobless. Hence, it is essential to bring in the employment dimension explicitly in the government's policy package.

Given the gravity of the challenge and the complex nature of the issues involved, it would be important for key stakeholders -- viz. the government and representatives of employers, workers, and the civil society --to interact and find solutions jointly. After all, finding ways of adjusting to the crisis by avoiding worker retrenchments to any extent possible and developing alternative ways of working are not straightforward matters. All stakeholders would need to work together on such issues. Crises are times for more rather than less dialogue. And the present crisis should be no exception.

### **Annex 1: Models and Methods Used for Employment Projection**

#### The aggregate model

The following model has been used to make projections of employment in rural and urban employment and for the urban informal sector.

$$E_t = E_0 (1 + r_e)^t$$
 (1)

where

Et represents total employment in the terminal year of the projection period,

 $E_0$  represents total employment in the base year, and

r<sub>e</sub> represents the annual rate of growth of employment during the projection period.

$$r_e = \eta r_g$$

where

 $\eta$  represents elasticity of employment in the particular sector with respect to output, and  $r_g$  represents growth of output

(2)

$$\eta = r_e \div r_g \tag{3}$$

### The sectoral model

For making projections of employment for various sectors of the economy (presented in Table 3 of the text of the report), the following model has been used.

$$E_{it} = E_{io} \left(1 + r_{ei}\right)^t \tag{4}$$

Where

 $E_{it}$  = target year employment in sector i

 $E_{io}$  = base year employment in sector i

 $r_{ei}$  = growth of employment in sector i

$$\mathbf{r}_{ei} = \mathbf{g} \,\,\mu_i \eta_i \tag{5}$$

Where

 $r_{ei}$  = annual rate of increase in employment in sector i

g = annual rate of growth of GDP

 $\mu_i$  = sectoral growth elasticity, i.e. elasticity of sector i's output (value added) with respect to GDP

 $\eta_i$  = sectoral employment elasticity

$$E_t = \Sigma E_{it}$$
(6)

Data needed for making the estimates are obtained from various government publications described underneath the respective tables. For example, projected sectoral growth rates in Table A-1 have been derived by using the overall projected GDP growth (5.2 per cent) and the respective sectoral growth elasticities with respect to GDP based on data for 2010 to 2016-17.

Sector	Annual output growth (%) 2010 to 2016-17	Sectoral growth elasticity with respect to GDP (2010 to 2016-	target for output growth	Elasticity of employment with respect to output growth (2010 to
		17):μ <sub>i</sub>		2016-17): η <sub>i</sub>
Agriculture	3.25	0.4947	2.57	- 0.1877
Manufacturing	10.29	1.5662	8.14	0.4159
Construction	8.29	1.2618	6.56	0.5078
Services	6.08	0.9254	4.81	0.5905
GDP	6.57		5.2	0.2755

Table A-1.1: Data for Employment Projection

Notes and sources: The estimates in different columns have been made by using data from the Ministry of Finance: *Economic Review* (various years), BBS: *Labour Force Survey* (various years).

# Annex 2: Tables

Sector	Total	Rural	Urban
Agriculture, forestry and fishing	40.6	51.7	11.8
Manufacturing	14.4	11.3	22,4
Construction	5.6	5.3	6.6
Wholesale and retail trade and repairs	14.2	11.8	20.5
Transport, communication and storage	8.6	7.8	10.8
Accommodation and food services	1.9	1.5	2.9
Information and communication	0.3	0.1	0.7
Finance and insurance	0.3	0.3	1.7
Real estate	0.7	0.1	0.5
Public administration and defence	2.6	1.7	4.9
Education	3.6	2.8	5.6
Health	0.8	0.5	1.6
Other services	4.0	3.6	5.0
Household service	2.0	1.0	4.6

### Table A-2.1: Distribution (%) of Employment by Sector, 2016-17

Source: BBS: Labour Force Survey 2016-17.

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