Over the past months, governments and their health agencies have been trying to combat the spread of the COVID-19 pandemic with mobility restrictions and social-distancing measures. We value their efforts to protect people’s lives, health and livelihoods, as these measures contribute to a reduction in the likelihood of human mortality, severe health consequences and the spread of the disease, especially among vulnerable people and communities.

However, these efforts have also resulted in challenges in the functioning of food systems in low- and middle-income countries. This rapid country assessment set out to synthesise available secondary data in relation to the impact of the COVID-19 crisis and prioritise short-term challenges and actions required in Bangladesh. In this report, we present the key impacts of the COVID-19 crisis on the food system, the effects of the lockdown measures on the most vulnerable groups, gaps identified in the data analysed and in government responses to the crisis, and actions required to address short-term priorities and challenges. The initial findings were further refined and approved by a panel of experts. More information on the methodology can be found on page 11.

The analysis is based on the food systems approach outlined by Van Berkum et al. (2018). An overview of relevant food system drivers, activities and outcomes can be found here.
Key impacts on the food system

The impacts of COVID-19 can be divided into immediate health effects and effects resulting from the measures taken. We concentrate on the latter, as the vast majority of impacts are linked to the measures taken to stop the spread of COVID-19 in Bangladesh.

Impact on the agricultural sector

- The agricultural sector in Bangladesh is expected to lose close to 625 million United States dollars (USD) as a result of the pandemic.1 Perishable goods, such as fresh fruits and vegetables, is the area that has been hit the hardest, while staple crops, such as boro rice, have been less affected.
- Travel restrictions have led to disruptions in transportation, hampering farmers’ access to agricultural inputs and preventing producers from reaching markets.2,3 The number of trucks on the road has decreased significantly.4 Food transportation costs have risen as a result. Although reports mention supply and transportation issues, not all the experts on the panel were able to confirm the existence of such issues.
- The lack of adequate storage facilities, combined with transport disruptions and a fall in demand, have led to wastage of perishable goods (milk and vegetables). Labour shortages have also affected crop harvesting.5 Reports have indicated that the poultry sector has been affected by the spread of misinformation suggesting that COVID-19 can be contracted through eggs and chicken. According to the panel of experts, the fish sector has also been affected by the spreading of similar falsehoods about fish. Consequently, there has been a drop in demand for eggs, chicken and fish.6

Changes in consumer behaviour and nutritional intake

- Misinformation concerning the spread of COVID-19 through fish and poultry products has caused a decrease in consumption of these foods, as highlighted in reports (poultry) and by the panel of experts (fish). Eggs and broiler meat are important sources of protein, especially for low-income households. However, dietary changes have also been noted in lower-middle- and middle-income households, specifically those without a guaranteed income.
- There have been several reports of reduced consumption of protein. According to one survey, 94% of respondents in low-income groups have reduced spending on protein food items.6 This is a key issue for food security as decline in purchasing power is affecting dietary intake.
- Nutritionists have warned the government that it is not adequately considering balanced and diverse diets in the distribution of food relief.7 In order to manage rising food prices combined with declined purchasing power, poor households are eating cheaper and less nutritious foods, often sacrificing the quality of their diet. According to a survey conducted by the Bangladesh National Nutrition Council (BNNC), 75% of respondents indicated that they did not have sufficient access to food at home, while 91% stated that they did not have sufficient money to buy food.8
Widespread job losses and decline in purchasing power

- Widespread loss of jobs in both the formal and informal sectors has led to declining purchasing power, not only for low-income but also lower-middle- and middle-income households, as reported by panel experts. The income of the extreme poor, moderate poor and vulnerable (not poor) alike is estimated to have fallen by as much as 70%.

- Food expenditures have decreased due to a decline in purchasing power. In April 2020, average food expenditure was found to have decreased by 22% in rural households and by 28% in urban households. Due to shortages in supply, the prices of vegetables, eggs, fish and broiler meat have been rising.

- The overall decline in purchasing power and demand will affect the agricultural sector and threaten the livelihoods of farmers. In April, income from farm agriculture was reported to have decreased by 58%.

- Panel experts have reported that employment losses and hardship in cities have caused an increase in urban to rural migration, not only among the poor but also middle-income households.

Lack of financial capacity of farmers and small- and medium-sized enterprises

- This impact was particularly stressed by the panel members as the reports available do not sufficiently cover the impact of the COVID-19 crisis on small- and medium-sized enterprises (SMEs) and smallholder farmers, in terms of credit, incentives and future prospects.

- According to the panel experts, only 20% of farmers have access to finance through formal banking channels. SMEs and smallholder farmers are suffering from decreased financial capacity and lack sufficient capital for the purchase of inputs. This puts them at risk of borrowing money with high interest rates.
Key impacts on vulnerable groups

Available data are strongly biased towards the formal sector, probably because the sector is better equipped for rapid large-scale data collection. The following groups were identified in one or more reports and panel discussions as being particularly affected by COVID-19 measures and health risks.

### Groups identified and their vulnerabilities in relation to the COVID-19 crisis

<table>
<thead>
<tr>
<th>(Smallholder) farmers</th>
<th>Refugees</th>
<th>Migrant workers</th>
<th>Children</th>
<th>Workers in food value chains</th>
<th>Female-headed households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers suffer extreme financial hardship due to lower demand for their products, supply disruptions, and being forced to sell under price. Many operate on credit and are now seeing their credit lines cut off. As a prolongation of the COVID-19 crisis will further affect food production in general, panel members stressed that all types of farmers should be considered vulnerable, irrespective of size or enterprise, and that support is key to preventing food losses and wastage.</td>
<td>88% of the total refugee population is dependent on external aid. Rohingya refugees receive e-vouchers for monthly food baskets that are pre-assessed to meet the daily nutritional needs.</td>
<td>Due to lack of work, migrant workers are at risk of hunger, housing crises and infection, and are unable to repay loans. Vulnerable migrants and their family members are unlikely to have any savings or food stocks.</td>
<td>According to the BNNC survey, 70% of respondents indicated that they could not provide a varied balanced diet to children between 6 and 23 months old. Children are at increased risk of malnutrition in food insecure situations, especially in low-income households.</td>
<td>The panel members highlighted other vulnerable groups in the supply chain, which include transport workers, agricultural input traders, machine repair and maintenance service providers, and mobile food vendors in urban areas.</td>
<td>As more men die from COVID-19, the number of female-headed households is likely to increase. These households face more severe impacts during the crisis. Female-headed households – especially in urban areas – have experienced a greater reduction in food expenditure compared to the male-headed households in urban areas. Many women who worked as garment workers, domestic helpers or home-based workers are now jobless.</td>
</tr>
</tbody>
</table>
Gaps identified ...

... in reports analysed

• Geographical variations in the impact of COVID-19 was stressed by a number of panel members as a critical aspect to be addressed. It is important to understand which impact occurs where and when, and if information is missing. A study conducted by Ruszczyk found that low-income households in small cities are not covered by social safety net programmes and as such had suffered food insecurity during the lockdown. Middle-class residents with guaranteed income did not report major changes in food consumption.12

• The impact of the COVID-19 crisis on transportation and supply issues could not be verified. Although many reports indicate transportation and supply issues, not all panel members could confirm this point.

... in government responses

• Assessments of changes in consumer behaviour, and of changing diets in particular, were highlighted by panel members as an important point. They further noted that the changes differ according to income group. These aspects will require further analysis to be able to adequately inform policy interventions.

Short-term actions required

• Assess producers’ needs for financial support and incentives, and ensure access to these incentives. Farmers who cannot obtain credit from banks could be provided for in other ways, such as through non-governmental organisations (NGOs) or microfinance institutions (MFIs), as low-interest credit is necessary for their survival. Producers need support in terms of inputs (good quality seed, fertilisers, irrigation systems, finance, etc.). It is essential that this support is provided in the long term.

• Conduct an assessment of the production of various crops to identify where, how and in what way they are affected. This is also important for the future, as farmers may choose to abandon their crop (or change to another) as demand and income drop. As the winter crop cycle is coming up, the risks for the next crop season should also be assessed.

• Ensure fair prices for farmers and consumers, and for market stabilisation. This may also require an analysis of the private sector’s role in supplying food. The Department of Agricultural Extension needs to have an effective system through which all types of information relating to production, markets and pricing can be easily attained.

• Focus interventions and support measures on female-headed households, as these households have been facing more severe impacts during the COVID-19 crisis.

• Enhance coordination and information sharing between the government and NGOs (and others). Additionally, community leaders could play a key role in sharing how people have shown resilience and dealt with this crisis at micro-level, to support a learning process for a possible next crisis. Lessons on how people have addressed food distribution for the poorer households in urban areas need to be recognised for better planning of future interventions.

• Facilitate access for SMEs to much broader financial packages, such as soft microcredit schemes, so that they can re-employ workers and have a working capital. It is essential to ensure that such incentives do not cause extra burdens. SMEs also need capacity support, technological support, skills development and logistic support. This is key to guaranteeing food safety (for example, in enhancing storage capacity). Moreover, these efforts could be combined with actions to provide skills development for adolescents who are currently not going to school. The development of skills for adolescents and youth, linked to different inputs in the food system (e.g. processing), will support long-term financial recovery.

• Promote the nutritional importance of vegetables, eggs, chicken and fish, through consumer awareness campaigns, to debunk myths that circulate about the transmission of COVID-19 through some products. Awareness of the importance of healthy diets is needed at community level, especially for pregnant and lactating women, children and the elderly.

References on page 10
Food systems approach

**Socio-economic drivers**
- Markets
- Policies
- Science & technology
- Social organisations
- Individual factors

**Food system activities**
- Enabling environment
- Food environment
- Food supply system
  - Agricultural production
  - Food storage, transport, trade
  - Food processing & transformation
  - Food retail & provisioning
- Food consumption
- Business services
- Consumer characteristics

**Environmental drivers**
- Minerals
- Climate
- Water
- Biodiversity
- Fossil fuels
- Land, soils

**Food system outcomes**
- Socio-economic outcomes
  - Food security
    - Food utilisation
    - Food access
    - Food availability
- Environmental outcomes

Socio-economic and political drivers

**Socio-economic drivers**

**Markets**
- COVID-19 will have a significant impact on the global economy. Bangladesh is expected to face economic shocks due to declining exports and tourism revenue. The Asian Development Bank predicts that in the worst-case scenario, Bangladesh could lose approximately 3 billion United States dollars (USD) of its gross domestic product (GDP)\(^5\).

**Policies**
- While significant support was provided at the beginning of the COVID-19 crisis, aid assistance has either stopped or reduced. The government has announced an additional 5 million ration cards in order to help poor households to buy subsidised food.
- The government has expanded coverage of the ongoing Food Friendly Programme as well as the Gratuitous Relief food security programme for the poor. Various safety net programmes will increase the distribution of food grain under the public food distribution system (PFDS) in response to rising demand due to COVID-19.

**Individual factors**
- According to a panel of experts, employment losses and hardship have forced many people to leave the cities and go to rural areas. This has reduced demand in urban areas.

**Environmental drivers**

- The COVID-19 crisis has hit Bangladesh at a time when the country faces the cyclone and monsoon seasons that extend from April to September, with flooding and landslides expected, further exacerbating the impact on vulnerable groups. Bangladesh comprises 64 administrative districts. 25 districts are considered to be most affected by COVID-19; of these 25 districts, 8 are prone to cyclones, 10 are susceptible to monsoons and flooding, and 3 are prone to landslides.[14]
Effects of COVID-19 on food system activities

Agricultural production
- Agricultural and aquaculture production are likely to be affected by a gap in the supply of good quality inputs, including medicine, disinfectants, seed, feed and other raw materials. The panel of experts noted that since producers currently have limited access to finance, they lack the financial resources needed to invest in inputs, which will reduce their productivity.

- An overall shortage of farm labour at the beginning of the COVID-19 crisis was reported as putting a strain on agricultural production due to its impact on harvesting and post-harvest management. In response, the Ministry of Agriculture provided combine harvesters and reapers promptly to ensure quick harvesting of rice. By May 2020, an estimated 50% of broiler farms had already gone out of business and are unlikely to risk starting a new crop.

Storage, transport & trade
- Due to a lack of storage opportunities, thousands of gallons of milk, eggs, vegetables and fruit have been wasted. The dairy sector was the first affected, as milk is highly perishable, and storage was not possible. Poultry farmers were forced to sell their produce below cost as no storage facilities were available.

- The COVID-19 measures have caused significant disruptions in the supply and transport of food, as the lockdown prevents rural farmers from transporting food to (urban) wholesale markets. Intermediaries are offering help, but there is a risk that they will take advantage of the farmers’ weakened position. In Jashore, the army has been providing assistance with transporting food.

- Disruptions in food transportation have caused a significant decline in the number of trucks on the road. In April, the number of trucks carrying fish from Rajshahi to Dhaka had decreased from 150 to only 20 a day. The average number of trucks entering Shyambazar from Rajbari and Pabna had dropped from between 60 and 80 a day, to just 8 a day.

Processing & transformation
- In May, barely 10% of rice mills were reported as being operational due to the lack of supply of paddy and labour. Moreover, according to the panel of experts, millers are unable to make profits from the current price of paddy.

Retail & provisioning
- Farmers have been forced to sell vegetables at 25-50% of production costs because of low demand and transport issues. For poultry, wholesalers and retailers adjust their sale prices based on their purchase prices, so they are able to manipulate prices to their advantage and to the detriment of farmers and consumers. The price differential between market and subsidised commodities is so great that it opens up opportunities for authorised dealers to embezzle cut-rate rice and sell it back to the market at higher prices.

- In response to the lockdown measures, some retailers have tapped into the large market opportunities for e-commerce and have expanded home deliveries of food in urban areas.

Consumption
- As a result of rising food prices and declining purchasing power, poor households are eating cheaper and less nutritious foods, often sacrificing on quality.

- The poultry and fish sectors are taking a disproportionate hit as demand for eggs, broiler meat and fish has decreased disproportionately. In March, the price of eggs and fish fell by 75%. Moreover, the fuelled by social media, that COVID-19 can be transmitted through these foods.

- The consumption of protein food items has declined for both low-income and middle-income households. According to one survey, 94% of respondents in low-income groups have reduced spending on protein food items. For middle-income groups with guaranteed incomes, no major changes in food consumption were reported.
Effects of COVID-19 on the food system outcomes

Socio-economic outcomes

- The COVID-19 crisis has resulted in massive losses in employment. Many of the urban poor are now jobless and those that still have work are earning less than before. The income of the extremely poor, moderate poor and vulnerable (not necessarily poor) alike is estimated to have dropped by as much as 70%.\(^8\)
- Increased levels of urban to rural migration, as a response to the COVID-19 crisis, have been reported. Many of those who are now unemployed are returning to their villages, where there is also a lack of employment.\(^9\)
- The decline in purchasing power has led to a decrease in food expenditure. The amount of money households spend on food has fallen by almost 30% in urban households, and by about 20% in rural households. There has been a greater reduction in household food expenditure in female-headed households than in male-headed households, particularly in urban areas. However, it is not clear whether these households have less money to spend on food or whether they are directing their money to other expenses.\(^9\)
- Smallholder farmers’ livelihoods have been particularly affected by the COVID-19 crisis, as demand for their products and profit margins have decreased.
- To buy food, many poor households have borrowed from within their communities or used their savings.\(^16\)

Food security outcomes

- The prices of essential foods are reportedly rising due to supply shortages, resulting in decreased consumption of key nutritious foods such as vegetables, fish, eggs and broiler meat.
- The reduced consumption of protein items is a key concern for food security. Nutritionists have warned the government that it is not adequately considering balanced and diverse diets in the distribution of food relief.\(^17\)
- The misinformation that has been spread about poultry products and fish has led to decreased consumption of these products, which are important sources of protein for both low- and middle-income households.
- Since the lockdown measures were lifted (31 May) poor communities in urban areas have not received food assistance despite the fact their situation has not improved.\(^10\) Low-income households in smaller cities were not covered by safety net programmes and suffered food insecurity during the lockdown.\(^12\)
References

Rapid country assessment of the impact of COVID-19 on food systems

To avoid a food, nutritional and socio-economic crisis in the aftermath of the current COVID-19 crisis, urgent action is needed to address key challenges in food systems. Low- and middle-income countries are particularly vulnerable to the COVID-19 crisis, as these countries are already struggling with multiple and interrelated problems, such as the effects of climate change, food insecurity, political unrest, underfunded health services, and/or persistent poverty among a significant part of the population. Following initial macro-level modelling and scenarios of the actual and potential impacts of the COVID-19 crisis, there is now an urgent need for more specific assessments of its impact on food systems, using ‘real’, ground-based country data.

Purpose
The first aim of the rapid country assessments is to synthesise available secondary data and point out gaps in data concerning the current impact of the COVID-19 crisis on the food system in general and vulnerable groups in particular. The second aim is to identify priorities for immediate action and possible trade-offs and synergies of proposed actions that would contribute to achieving resilient and more inclusive food systems. The rapid country assessments are conducted in Bangladesh, Ethiopia, Kenya and Mali.

Institutional reference
This rapid country assessment is the result of a collaborative effort between the Community of Practice on Knowledge in relation to the COVID-19 crisis in low- and middle-income countries – an initiative of the Dutch Ministry of Foreign Affairs, the Netherlands Food Partnership (NFP) and the Global Alliance for Improved Nutrition (GAIN) – and several other communities of practice (CoPs), to support joint Dutch responses to the COVID-19 crisis. More information on this can be found here. Funding for the rapid country assessments was provided by the Food & Business Knowledge Platform, which is in transition to the NFP.

Contributing organisations
The rapid country assessment in Bangladesh involved the following organisations and their representatives. They provided secondary data, participated in the expert panel, and/or reviewed draft versions of the assessment: Bangladesh Agricultural University (Professor Dr M.A. Sattar Mandal; Dr A.H. Saiful Islam); University of Dhaka/Institute of Nutrition and Food Science (Dr Md Asaduzzaman; Professor Dr Nazma Shaheen); Dr Wais Kabir; ICCO/Wood en Daad (Shakeb Nabi); IFPRI (Dr. Akhter Ahmed); ICDRR (Dr. Sabrina Rasheed; Dr. Sadika Akhter); Innovation Consulting Private Ltd (Rubaiyat Sarwar); Bangladesh National Nutrition Council/Ministry of Health (Dr Md Akhter Imam); Food Planning and Monitoring Unit/Ministry of Food (Mostafa Faruq al Banna); Sher-e-Bangla Agricultural University (Dr Ranjan Roy); Solidaridad (Selim Reza Hasan): GAIN (Dr Rudaba Khondker, Dr Sabiba Sultana; Syed Muntasir Ridwan); Bangladesh Food Safety Authority (Dr Md Abdul Alim; Dr Abu Shahed Zubery); Durham University (Dr Hanna Ruszczyczk; Dr Md Feisal Rahman); BRAC (Anisur Rahman); and CGIAR-A4NHR (Nazmul Alam).

Method
In-country networks of members of the CoP on Knowledge collect relevant secondary data in relation to the impacts of COVID-19 on the respective food systems. The analysis of available data is based on the food systems approach outlined by Van Berkum et al. (2018), and on the notion of vulnerability analysis (Van der Wal, 2016). Data are aggregated and summarised, commonalities and differences (or conflicting messages) are assessed, data gaps are identified, and priority actions mentioned in the available reports are recorded. The initial findings are reviewed by a panel of experts representing different fields of expertise, sectors and stakeholder groups in the food system (see above for the list of organisations that contributed in Bangladesh). These rapid assessments synthesise available information for use by practitioners and policymakers, and are conducted under extreme time pressures. The entire process is taken three weeks. One of the implications is that due to the speed of the assessment, we have to compromise on the depth of the analysis. The current assessment is a pilot. If successful, we will repeat this process in other countries.

We would like to acknowledge the following persons: Arli Zarate Ortiz en Farzana Sehrin (PhD students with WUR) in the screening of information and literature; Nazmul Alam van IFPRI en Rudaba Khondker van GAIN in organizing the expert panel.

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