

# IMPACTS OF COVID-19 ON AGRICULTURE IN BANGLADESH

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## Background

Bangladesh is not new to disasters or major humanitarian crises. Sitting astride a river delta at the bottom of the Himalayan range, the country is fighting a longstanding battle against climate change impacts and currently hosts the world's largest refugee camp along its southern border. Bangladesh and its people have shown tremendous resilience in fending off not only natural disasters such as floods and cyclones, but also manmade ones like the 1997 Asian financial crisis and the 2008 global financial crisis.

Nevertheless, the COVID-19 pandemic is a crisis of a completely different scale and magnitude. And it requires an unprecedented response. Bangladesh's public and private sectors have come together to address the immediate threats of COVID-19 to health systems as well as possible long-term threats to the country's economy – including agriculture.

As the pandemic unfolds, Bangladesh's Ministry of Agriculture, Fisheries and Livestock has taken steps to retain and intensify production and coordinate efforts to ensure timely availability of inputs, extension support, transportation, and value addition as the cropping season commences.

COVID-19 protocols and guidelines have been developed to guide agriculture-sector actors and ensure that the agri-food supply chain does not contribute to rising COVID-19 infections across the country. The government's general approach vis-à-vis the farming community has been to encourage cultivation of more areas and to safeguard other value-chain actors, making sure that farm produce continues to reach markets while following social distance guidelines. The general theme is that no land should remain fallow and no resources should be left unused in maintaining production.

Regular messages on COVID-19 are broadcast to farmers on "Bangladesh Betar" (Radio Bangladesh), covering the entire country. The programme "Desh Amar-Mati Amar", for example, is broadcast every day at 15:05 hours and provides information on adopted technologies, success stories from the field, and more. The programme "Krishi Samachar", broadcast each morning at 6:05 hours, shares essential measures that farmers should follow at the start of the day. Overall, these two channels broadcast exclusive information for the farmers, including details on the COVID-19 situation.

In addition, sixteen community radio stations across Bangladesh have been broadcasting coronavirus prevention education in line with the country's COVID-19 National Preparedness and Response Plan. The awareness campaign will continue as long as the situation requires. Rural communities in remote areas, in particular, benefit from these radio broadcasts.

The Government declared an official lockdown on 26 March 2020 in an effort to reduce the spread of COVID-19 and wider consequences. It remains in place to date. The lockdown severely restricts the mobility of the farming community, especially affecting farm labourers who must generally move from place to place to work and earn income.

## Survey of agricultural actors

Between 14 and 18 March 2020, a brief survey was carried out on the phone and via email, using a written questionnaire. A total of 57 respondents from different backgrounds participated, including extension professionals, WOCAT staff, NGO staff, scientists, farmers, students, and teachers. The participants were randomly selected from six hotspots in the country. The hotspots were chosen based on how they represent different types of land, cultivation, and degradation conditions. Among the hotspots, *Haor* (wetland ecosystem), the *coastal region*, *hill areas*, *Barind tract*, *piedmont plain*, and the *floodplain* (as a whole) were targeted, in particular, to explore the impact of COVID-19 on farming communities there.

Despite Bangladesh's relatively small geographical area, impacts of COVID-19 on farming communities may unfold distinctly in different areas. Impacts were analysed depending on the crops present in the field. Five broad categories/sectors could be distinguished:

1. Farms in areas where winter rice, or "Boro", is harvested;
  - a. Haor areas (wetland ecosystem), April–May
  - b. Other parts of the country, April–June
2. Farms in the coastal region, where vegetables, melons, fisheries (small scale/private) etc. predominate, April–May;
3. Farms in areas – Barind Tract (Rajshahi), Dinajpur, Thakugaon, Pachagarh, hill districts, etc. – where mainly fruits are cultivated (particularly mango, lychee, banana, jackfruits, etc.), May–June/July;
4. Fishery areas – especially for export-oriented shrimp farming and transportation of prawn seeds from hatcheries at Cox's Bazar to Khulna-Satkhira in the coastal region;
5. Dairy products and the poultry sector.

## Risks cited in farming communities due to COVID-19

Overall, a number of risks related to COVID-19 impacts were described by our interviewees:

- Lack of cash and increased debt will compromise access to production inputs for the coming agricultural season
- Farmers who owe loans locally may be forced to sell their goods at lower prices to pay off debt
- Compromised access to agricultural inputs reduces cultivated areas and agricultural activities (weeding, pruning, mulching), causing falling yields, loss of crop diversity, and, eventually, soil infertility
- Loss of labour mobility due to social distancing and reduced transportation led to unavailability of agricultural workers. Simultaneously, labour costs rose as high as 1,000 Bangladeshi Taka per person per day in some (Haor) areas – nearly double the usual rate
- Distress selling of machinery, agricultural equipment, savings, livestock, etc. to cover immediate living/health (e.g. COVID-19) costs and/or unforeseen expenses
- Loss of food security and dietary diversity and increasing gender inequality, especially harming vulnerable groups, due to compounding problems of declining access to land, finance, and knowledge
- Increasing exclusion and stigmatizing of those infected with COVID-19, fragmenting social groups
- Local businesses that rely on exports (fish/shrimp) and supply chains that depend on imports (onions, oil, sugar, etc.) have been harmed by disrupted communication and marketing systems
- Small-scale farmers are facing difficulties working their own land and accessing markets to sell their products or to buy seeds and other essential inputs

- Marketing of high-value commodities (fruits, vegetables, poultry, and dairy products, etc.) has been impeded by lockdowns and related communication difficulties
- Blockages to transport routes are particularly harmful to fresh produce supply chains, possibly causing increased food loss and waste
- Reduced incomes and rising consumer uncertainty lead to shrinking demand that may harm overall food security. Farmers are selling their produce at low prices as demand has slumped
- Wholesale buyers/traders are showing less interest in agricultural products as transport costs have increased significantly

### **Case example in Haor area: Harvesting Boro rice before flash flood (April–May)**

#### **Key challenge:**

Labourers from different districts needed to enter this area to harvest Boro rice. Labour mobility was restricted due to the lockdown beginning on 26 March. The immediate challenge was to harvest Boro rice in Haor (Sylhet, Sunamganj, Netrokona, Khishorganj districts).

#### **Solutions identified:**

- (1) Mechanized harvesters/reapers were deployed at subsidized rate
- (2) Labour mobilization was organized by the local government, maintaining social distance rules

#### **Lessons learned:**

This is the first time such harvesters/reapers were used in Haor. They saved both time and costs. Local people were enabled to operate them. The paddy threshing process was also boosted

### **Farmer adaptation**

Farmers are natural self-innovators. To cope with current challenges, they have used a variety of techniques and strategies, including:

- Marketing directly from the field using mobile phone service: farmers collect orders, then harvest precise amounts from the field
- Proactively communicating with agricultural offices, other organizations like NGOs, and vendors in cities in order to sell their products
- Developing community-based marketing: some farmers in the same region cultivate different products, but now collaborate with each other to negotiate with wholesalers and buy needed items faster and at reduced cost
- Selecting less labour-intensive crops for the next growing season and/or those that lend themselves to available inputs and sustainable (Kharif-1) cultivation
- Fish farmers are keeping their cultured fish in the pond for longer, in some cases
- Dairy products and poultry are also on board of market chain through mobile stalls across the country which is a new approach to keep market chain workable.

### **Government support**

The government of Bangladesh has approved 5,000 crore (at 4% interest) in soft loans to farmers. Other support measures include:

- Facilitating machinery for crop harvesting (e.g. harvester and reaper) at subsidized rates and also aiding mobilization of farm labour
- Exempting farm product transportation from lockdown to preserve market chains
- Fostering public–private linkages to protect supply chains
- Motivating farmers to utilize all types of land and requesting that field officers stay at sites to help farmers  
(see video of Agriculture Minister: <https://www.youtube.com/watch?v=b5i4fRaoS0M>)
- Institutions like the Bangladesh Agricultural Research Institute (BARI), Department of Agricultural Extension (DAE) and Soil Resource Development Institute (SRDI) have been distributing free seeds of Kharif vegetables, saplings of fruit trees (papaya, lemon, lychee, mango, etc.) to farmers all over the country
- Extension services are expanding their activities to cover the COVID-19 situation and properly support farmers to cultivate their lands in the upcoming growing season
- Improving information systems, including community radio, to share government advice/services with farmers, especially that of Department of Agricultural Extension (DAE)
- NGO microcredit managers have been asked to suspend loan collection during COVID-19



Use of harvester in Haor area  
(Photo credit: G. Moula, AIS)



Transporting agriculture workers to other regions (Photo credit: S. Debnath, UAO)



Government purchase of rice from farmers (Photo credit: G. Moula, AIS)

## **Lessons learned**

Important lessons from the current situation include:

- The COVID-19 situation is highly unpredictable and the Department of Agricultural Extension (DAE) is doing all it can to provide adequate support to farmers via telecommunication and community radio programmes on harvesting field crops (mainly Boro rice and fruits) and cultivating in the upcoming pre-kharif growing period
- Mechanization, especially use of harvesters, proved effective in Haor area
- Farmers' awareness of crisis, ability to adapt, and use of communication network (also digital technologies) were decisive
- The government asked microcredit institutions/NGOs to suspend loan collection from farmers during the lockdown

For more information on the general COVID-19 situation and agriculture in Bangladesh, please consult the website of the country's Agricultural Information Service (AIS): [www.ais.gov.bd](http://www.ais.gov.bd)

The observations, analysis, and opinions expressed in this short report are solely those of the authors. The main contributor and contact person, Jalal Uddin Md. Shoaib, is Project Coordinator, SLM project, Department of Environment (DoE), Ministry of Environment and Forest and Former Chief Scientific Officer at the Soil Resource Development Institute.