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Consequences of COVID19 Pandemic on the Agricultural Economy: Probable Challenges and Possible Measures

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#### **ABSTRACT**

The COVID-19 pandemic has resulted in over 10.4 million confirmed cases and over 507435 deaths globally and 3.5 million confirmed cases and over 17400 deaths in India yet. It has also sparked fears of an impending economic crisis and recession. The protective measures like social distancing, self-isolation and avoiding unnecessary travel and a ban on congregations forced a decrease in the workforce across all economic sectors and caused many jobs to be lost. The need of commodities and manufactured products has decreased. In contrast, the need for medical supplies has significantly increased. Especially in agriculture, a unique set of challenges, area cultivated under specific crops (market crops) decreased along with rural incomes. Aggregators were unable to purchase at the farm gate, markets were closed, and supply chains were restricted. Additionally, reduced incomes limited farmers' ability to hire farm labour, which was highly restricted because collective work was banned in fields. In response to this global outbreak of COVID-19, we have tried to summarise the implications of COVID-19 pandemic on the farm economy and their probable upcoming challenges with some possible measures.

## INTRODUCTION

The ongoing health crisis around COVID19 has affected all walks of life. Protecting lives of people suffering from the disease as well as frontline health responders have been the priority of nations. India declared a nation-wide lockdown for achieving satisfactory containment of the virus spread. During these challenging times, how does Indian agriculture respond to the crisis and how do government measures affect farm households across the country? We assess the immediate happening and probable upcoming challenges that COVID19 has posed to the farm sector and suggested some possible mitigation measures to ensure a sustainable food system in the post-crisis period. Actually the impact of COVID-19 on agriculture is varied and devastating. It will vary widely across different regions and among producers and agricultural wage labourers. Also impact of COVID-19 on agriculture is complex and varied across diverse segments that form the agricultural value chain. Even among the different segments, its impact varies widely among different regions and among producers and agricultural wage labourers. This impact will reverberate across the whole Indian economy and will linger longer than a few months and may be 1 or 2 years (7).

## **Immediate Happening after COVID-19**

The resilience of the agricultural sector has been tested by the COVID-19 outbreak. A global crash in demand from hotels and restaurants has seen prices of agricultural commodities

highly dropped. To control the spread, the numbers of protective measures includes social distancing, avoiding unnecessary travel, and a ban on congregations. This will have pronounced implications for perishable goods such as meat and vegetables. Furthermore, markets have gone a step further by shutting down floor trading which has impacted the ability of commodity exchange. Parallaly in food sector, including food distribution and retailing, has been put under strain as a result of people panic-buying and stockpiling on food. This has led to increased concerns about shortages of food products. Panic buying has resulted in an increase of worth of food in the Indian homes over the week. This high demand on food products has also affected food chain supply. In contras about food running out mean that vulnerable populations who can't afford to stockpile, will be unable to find food (6).

## **Immediate Problems in Agriculture Sector after COVID-19:**

The problems in agriculture at the moment are primarily related to labour availability and inability to access markets for produce due to issues in transportation as well operation of markets. The non-availability of labour has hurt operations in many parts of the India. Some parts of agriculture that has the luxury of deploying technology for harvesting are relatively more insulated since they often do not have to depend on large numbers of manual labour. However, commercial crops (fruits and vegetables) are drastically hit as they tend to be more dependent on migrant labour. Consequently, the shortage of migrant labour has resulted in a sharp increase in daily wages for harvesting crops. In many areas, the rise is as high as 50 percent, making it unremunerative for producers since prices have collapsed due to either lack of market access including the stoppage of transportation and closure of borders. This is in contrast to areas where migrant labourers have returned home from urban areas and this has led to a sharp decline in agricultural wages. Agricultural producers are particularly hard hit with returns on produce varying from one-third the usual or a complete loss. In a number of districts, inter-state trade in commercial crops or proximity to urban areas provides market access and better prices. These are happened due to initiatives of individual farmers rather than direct state support (limited support). This is happen the case of crops like onions, cotton, mango, inland fisheries, flowers and vegetables. The rise in labour costs and lack of access means that farmers are staring at huge losses and hence allowing crops to rot in the fields, a better stop-loss mechanism. Those who have avoided a complete loss barely eke out any money to cover the cost let alone household maintenance or land lease rates (6).

## **Upcoming Shortages in Agriculture Sector after COVID-19**

An immediate consequence of this should make the government weary and alert to a possible sharp spike in the price of vegetables and other commercial crops due to large scale changes in cropping patterns. Large buffer stocks of food grains is impossible at least this year, due to poor harvest is unlikely. The case of commercial crops and vegetables is more complex. The decision to plant these is largely dependent on realisation price in the preceding season. A collapse in returns means that farmers are likely to shift to another crop thereby substantially altering supply dynamics and with it prices. This, in turn, may have a bearing on food inflation (3).

# **Immediate Challenges in Agriculture Sector after COVID-19**

In view of continuing restrictions like social distancing, self-isolation and avoiding unnecessary travel and a ban on congregations, concerns have been raised regarding negative implications of COVID19 pandemic on the farm economy. This is the end of *Rabi* season and start of Kharif season in India. This is also the time when the farm harvests reach the *mandis* (market yards) for assured procurement operations by designated government agencies. Moreover, any severe disruption to the supply of perishable fruits and vegetables, dairy products, fish, etc. having mobilized to meet the increasing demand from a bulging middle class as well as urban and rural consumers, may create irreparable damage to all actors in the supply chain. The migration of workers from few parts to their native places has also triggered panic buttons, as they are crucial for both harvesting operations and post-harvest handling of produce in storage and marketing centres. The sale of dairy products; fish; poultry, etc. has also been hit during the lockdown period as the uptake by the organized industry players has been affected due to shortage of workforce and transport issues. Making the food grains, fruits and vegetables and other essential items available to consumers, both in rural and urban areas, is the most critical challenge for Government machinery during the lockdown period (1).

As discussed earlier, COVID-19 is disrupting some activities in agriculture and supply chains. The non-availability of migrant labour is interrupting some harvesting activities. There are disruptions in supply chains because of transportation problems and other issues. Prices have declined for cereals, vegetables, and other crops, yet consumers are often paying more. The closure of hotels, restaurants, sweet shops, and tea shops during the lockdown is already depressing milk sales. Meanwhile, poultry farmers have been badly hit due to misinformation, particularly on social media, that chicken are the carriers of COVID-19 (1).

## **Challenge of Migrant workers and labour force:**

The poor sections of society are always the hardest hit in any disaster or pandemic situation. With about 85 percent of Indian farm households being small and marginal farmers, and a significant part of the population being landless farm labourers, welfare measures to contain any damage from COVID are definitely going to help them with sincere implementation. Due to the lockdown, daily-wage workers (the urban poor and migrant labourers) were left with no work. At the same time, the lockdown restrictions put a stop on the movement of buses and trains. Large numbers of migrant workers ended up walking back to their villages, some journeys hundreds of kilometres long. Social distancing was not possible for these migrants, who travelled together in large groups (2).

## **Possible Mitigation Measures:**

- Peoples living on agriculture and allied activities, mostly those losing their income from informal employment at this lockdown period have to be provided with alternative avenues (cash transfers) till the economy bounces back (1).
- Government has to accelerate national news media's (only recognised media's who provide real and trusted information) for providing timely information to farmers and other stakeholders. Farmers need credible information, tips, and advisories to continue their practices. Some Indian research institutes (especially Agriculture and Allied

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institutes) have developed comprehensive advisories on various facets of safe and hygienic handling and marketing to deal with COVID-19 situations. However very strict action against fake news through social media like various online channels, including social media, facebook, whatsApp, and YouTube.

- Government has advised to think of a rescheduling of farm and other farm related short term loans wherein existing loans are converted to long-term loans payable over a three year period.
- The effective dissemination of the guidelines of COVID-19 and implementation on the ground is very crucial. In this view, Non-governmental organizations (NGOs) gain the huge trust at the gross-root level (at farmer's field level) due to their non-profit social working to improve the living standard and farm income of farmers (especially small and marginal). Therefore for smooth working and re-channelize the food chain and farm activities NGOs can play vital role. Governments must gear up NGOs works through support of extra funds.
- To sustain the demand for agricultural commodities, investments in key logistics must be enhanced. Moreover, e-commerce and delivery companies and start-ups need to be encouraged with suitable policies and incentives.
- The small and medium enterprises, running with raw materials from the agriculture and allied sector or otherwise, also need special attention so that the rural economy doesn't collapse.
- To obviate the immediate concerns of scarcity of farm labour, policies must facilitate easy availability of machinery through state entities, Farmer Producer Organizations (FPOs) or custom hiring centres (CHCs) with suitable incentives.
- Need to explore leveraging NREGS funds to pay part of the farm labour (with farmers paying the balance wage amount) to lessen the monetary burden on the farmer, while ensuring wage employment to the landless labourers and workers.
- To answer queries relating to the announced measures of Government and addressing grievances of farmers, besides providing advisories on farm operations; availability of agriinputs, dedicated toll-free helplines/call centres (in local/vernacular languages) must be established by the Government.
- As the Kharif (rainy/wet) season is fast approaching, institutional lending of crop loans should be expanded and facilitated for smooth (and sufficient) flow of credit to borrowing farmers. Agri-inputs like seeds, fertilizers, agro-chemicals, etc. have to be pre-positioned for easy availability.
- Relaxation of the norms by Agricultural Produce Market Committees (APMCs) allowing farmers to sell their produce beyond the designated *mandis* will certainly ease the burdens of farmers
- State Governments must gear up their machineries for smooth procurement operations of farmers' marketable surpluses at MSP (minimum support price) or through other price support schemes.
- As agriculture sector a growth engine and also to bring resilience in food security, therefore at this critical stage, where climate change is already adversely impacting the agriculture sector, productive investments, including on research and innovation, would be very purposeful.

- Structural reforms such as land leasing, contract farming and private agricultural markets, etc. have long been advocated to bring enhanced investments into the agriculture sector and to push its growth.
- COVID situation offers that unique opportunity to repurpose the existing food and agriculture policies for a healthier population.
- Smooth functioning of the supply chain, with adequate safety measures for the people involved, is of paramount importance. Transportation of public distribution system items to last mile delivery agents, by both rail and road, has to be ensured by respective Government agencies.
- Distribution of the commodities to vulnerable population, while maintaining prescribed guidelines and protocol, particularly of social distancing, must be effectively monitored.

#### Role of Government, Non-Government and Private Sectors:

- **1. Immediate study on impacts assessments of the COVID-19 on farm economy:** The focus needs to be on understanding the immediate impacts of COVID-19 on farm economy also the long-term impacts require careful consideration. The use of cutting-edge remote-sensing tools, combined with machine learning, offers a promising approach to map disruptions in crop production. Data collection using cellphones and social media can be deployed at scale to monitor the impacts of COVID-19 on farmers and consumers (7).
- **2. Support farmers to continue producing and marketing food:** Supporting farmers to keep producing food and to remain connected to markets is essential. Farms institute and NGOs can help for safe labour practices, increase access to personal protective equipment (masks and gloves). Taking measures to reduce the spread of COVID-19 and promote continued production of food. Helping farmers thorough adoption of labour saving practices that compensate for reduced labour availability (5).
- **5. Remanagement of supply chains and markets:** Disruptions to supply chains and markets have widespread impacts on the food system. Innovative efforts are needed to help get inputs to farmers and produce to market. Digital logistics, both in rural and urban areas, can reduce the impacts of control measures related to COVID-19 on transport, aggregation, and retail systems (4).
- **4. Support small, medium, and large agribusinesses:** The small and medium enterprises are the bedrock of the Indian economy. Government needs to roll out a special stimulus package for the small, medium, and large agribusinesses with special focus for the small, medium companies. This can include low-interest or interest free loans for the industry.
- **5. Dissemination of agricultural technologies and digital agriculture solutions:** Agricultural technologies, especially digital agriculture solutions, offer a range of important opportunities to address the impacts of COVID-19 on agricultural production, labor availability, input supply, and logistics.
- **6.** Assess the gender perspective impact of COVID-19 on agriculture-based livelihoods and food security: Approaches to address COVID-19 that carefully consider the gender dimensions of food security, labor, health, and vulnerability are essential. Women play a central role in the

market as traders, producers, and health care workers, and they often assume the role of caretakers in the community. These roles may increase exposure to illness and impact income earning (7).

## 7. Amendments in policy dialogues to address food shortages:

Governments need to innovate and collaborate around food security and agriculture policy. This will allow countries to better manage their agri-food imports and export, reduce the risks of food trade bans, and ultimately ensure their populations have access to food. Investments in sanitary and phytosanitary controls and good practices in transport and food safety can build confidence in regional and global trade systems and help improve the flow of food to where it needs to go (3).

#### **CONCLUSION**

Action to address the impacts of COVID-19 on our food and agriculture system needs to be accelerated. By collaborating to bring ideas and partnerships together, the community has a much stronger chance of mitigating the impacts of COVID-19 on the food system and protecting the food security of the most vulnerable people. Immediate relief measures need to be implemented and adjusted for those that may fall through the cracks. Medium and longer term planning is needed for how the economy is rebalanced and re-energised following this crisis. It is prudent that governments and financial institutions constantly re-assess and re-evaluate the state of play and ensure that the 'whatever it takes' promise is truly delivered. The government has correctly issued lockdown guidelines that exempt farm operations and supply chains. But implementation problems leading to labour shortages and falling prices should be rectified. Farm populations must be protected from the coronavirus to the extent possible by testing and practicing social distancing. Farmers must have continued access to markets. This can be a mix of private markets and government procurement. Small poultry and dairy farmers need more targeted help, as their pandemic-related input supply and market-access problems are urgent. Farmers and agricultural workers should be included in the government's assistance package and any social protection programs addressing the crisis.

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