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# Impact of COVID-19 on Socio-Economic state of Indian Farmers

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## ABSTRACT

Agriculture is the backbone of Indian economy and major source of livelihood in rural India. COVID-19 disease significantly affected the agricultural chain supply from production centre to the end user. This article promptly analyse the various approaches which affected social and economic state of Indian farmers.

### What is corona virus and COVID-19?

Corona viruses (+ss RNA) are large family of viruses that can cause illness in animals as well as in humans with wide range of severity. In humans, various corona viruses are known to cause minor disease like common cold and also severe diseases such as Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). The first severe illness, due to corona virus, was emerged with SARS epidemic in china (2003) followed by MERS in Saudi Arabia (2012).

The newly discovered corona virus causes corona virus disease-COVID-19. The causative agent is still unknown but is an infectious disease with 2-8 percent death rate. The outbreak of disease was started from Wuhan city of China in December 2019 and spread globally, including India, due to its highly contagious nature. It can be transmitted from human-to-human through hand shaking, respiratory droplets from coughing and sneezing (aerosol transmission). The best way to contain this pandemic disease is isolation, maintenance of social distance and use of preventive measures such use of sanitizer or soap for hand wash, wearing of mask etc.

### COVID-19 in Indian Subcontinent:

In India, the first laboratory confirmed case was detected on January 30, 2020 in Kerala, when woman with two students reverted to state from Wuhan city and as of May 18, confirmed cases has crossed more than 90,000 and death toll about 3000 with nominal mortality rate of 3.3%. Although, India has improved recovery rate up to 38.29% *i.e.* highest since the inception of this disease in the country. Government of India promptly took preventive measures to contain COVID-19 disease by applying Janata Curfew (22 March), Lockdown-1 (25

March- 14 April)-complete lockdown except essential commodities, Lockdown-2 (15 April-3 May)-with conditional relaxation after 20 April in agricultural sector such harvesting operations, dairy, aquaculture, plantations, as well as shops related to agricultural inputs and repairing centres, Lockdown-3 (4 May–17 May) with more relaxations in green zone (without any case in last 21 days) and lockdown-4 (18 May-31 May) with some minor amendments in previous orders. Government also launched ‘Aarogya setu app’ for early identification risk of infection. Although, government of India took timely comprehensive and robust preventive measures to contain the pandemic disease but also has negative impact on the livelihood of migrant workers, farmers, and ultimately Indian agriculture. Thus, this article highly emphasised the effect of pandemic COVID-19 disease on the social and economic condition of farmers in India. The lockdown scenario has been described in table-1.

**Table 1: Lockdown scenario and important announcements by the honourable Prime Minister of India with specific themes**

| Legal restriction | Duration          | Important announcement by Hon'ble Prime Minister | Theme of announcement    | English translation                            |
|-------------------|-------------------|--|--------------------------|--|
| Lockdown 1.0      | 25 March-14 April | 24 March   | “Jaan hai to jahaan hai” | Only if there is life there will be livelihood |
| Lockdown 2.0      | 15 April-3 May    | 11 April   | “Jaan bhi jahaan bhi”    | Both lives and livelihood matters              |



|              |               |        |                           |   |
|--------------|---------------|--------|---------------------------|---|
|              |               |        |                           | equally                                     |
| Lockdown 3.0 | 4 May-17 May  | 11 May | “Jan se lekar jag tak”    | From an individual to the whole of humanity |
|              |               | 12 May | “Atmanirbhar Bharat”      | Self-reliant India                          |
| Lockdown 4.0 | 18 May-31 May | -      | More rights to states/UTs | -   |

There are various approaches to analyse the effect of disease on farmers but few important sectors are taken into consideration in the following section.

### Agriculture:

India is an agrarian country. Agriculture sector alone not only provides 14 percent share in country's economy but also more than 40 percent of total employment. A majority of India's farmers (about 80%) are small and marginal with less than two hectare of land. Agriculture is a state subject in Indian subcontinent where agricultural policies vary from state to state. Lockdown-1 adversely affected the agricultural operations than further extensions. Complete lockdown restricted the movement of people including farmers, farm labours and vehicular traffic including farm machines, and as result negatively affected farm economy. Although, Indian government tried its best to minimize the adverse effect on agriculture but could not overrule its implications on agriculture. The major agricultural sectors which were being severely affected by disease are-

#### a) Harvesting:

This was the peak of *rabi* season (March & April), after Holi festival, in North-India where crops like mustard, wheat, chickpea, lentil and paddy in irrigated regions, and plantation crops like pepper, coffee and banana in South-India were either at harvestable stage or almost at maturity stage. Unavailability or scarcity of farm labours significantly increased the daily wage price during harvesting operations. Small land holders harvested their crops manually either by themselves or through mutual agreement with each other. Large land holders faced tough time because they did not have enough man power. Thus, they were forced to pay high price for harvesting operation either by manually or through harvester. Matured crops were logged in the field due to amalgamation of high rainfall or hail with high wind

velocity and leads to heavy crop damage. Complete restriction, imposed by Lockdown 1.0, tremendously affected harvesting operation in majority of *rabi* crops, however after relaxations, they were enabled to do their agricultural activities. But implications of government policies were not as we think as it was for the farmers.

#### b) Farm labour:

India's agriculture sector depends on migrant labourers for several operations from seed sowing to harvesting and threshing in the form either a skilled or unskilled farm labour. Curtailment of labour migration from one state to another state drastically affected the harvesting of commercial crops which were more dependent of migrant labours compare than food crops like wheat and paddy. Shortage of labour at peak time of harvesting of vegetables and fruits significantly increased daily wages. However, in contrast, daily wages decreased where migrant labours reverted to their native places from urban areas and tend to hunger and malnutrition.

#### c) Agricultural Implements and Repairing centres:

Agricultural implements such as sickle (daranti), hoe and thresher or combined harvester are essential and basic input to complete crop harvesting operation. During lockdown-1, shops involved in selling of farm implements, were completely closed and farmers could not purchase new farm implements for harvesting. They used their own old implements but got worse when either they were broken or their sharpness declined. The farm implement repairing centres were either completely closed or open for specific period and severely affected harvesting operation. It was one of the main reasons for crop loss at farm field during pandemic. Farmers had no choice beside delaying crop harvesting because of scarcity of farm labour or old and wear and tear implements could not be repaired on time.

#### d) Storage and Mandis (market yards):

Although, with great adversities, farmers were enabled to complete the harvesting operation but faced more challenge to store their produce at their residences. Predominantly, most of the farm produce either directly goes to Mandis for selling or storage for future use. The storage centres and mandis were either closed completely or opened for short time with some precautionary measures. Minimum support price (MSP), implemented by Indian government for few selected agricultural commodities, has their own limitations because they



cannot purchase seed beyond their limit (as per government rule) and also have a lengthy process. Thus, farmers were forced to sell their produce to middlemen at low price because they do not have storage facility or have to pay debt, taken from either landlords or banks in the form of crop loan. Migration of skilled workers from working places to their native places triggered panic because they were crucial not only for harvesting operations but also for post-harvest handling of produce in storage and marketing centres such as Mandis for food grains, fibre, food and vegetables. Poultry farmers have been badly hit due to misinformation on social media, that chicken are the carrier of disease, and also transportation restrictions.

**e) Transportation facility:**

The first visible impact of COVID-19 was on agricultural supply chain. Nation-wide complete lockdown restricted the movement of people as well as vehicles between states, districts and even local areas. This not only adversely affected agriculture but also horticulture sector including fruits and vegetables. Farmers, involved in vegetable cultivation, were forced to sell their produce at low price or throw it on roads or not harvested from the field itself due to less demand in market and were unable to get cost of cultivation. They were unable to store their produce into the cold storages which were located far from their farm. The movement of their produce was greatly affected. Lack of transportation facility tends to post harvest losses either at farm or their own local storage facility.

**f) Agricultural inputs:**

As *khariif* season is fast approaching, agri-inputs like best quality of seeds, fertilizers, agro-chemical etc. have to be pre-positioned for easy availability into the market. To meet the agri-input-demand, private sector must play significant role with suitable policy support. As they could not sell their farm produce, Government must come forward to provide extended crop loan and flush sufficient and smooth cash credit to particularly, small and marginal farmers.

**Livestock and dairy:**

Although, there was least impact on fodder production and animal health but milk supply chain was interrupted due to less demand on area of production and restrictions on the inter and intra-state movements of transportation. During this pandemic, either milk was converted into ghee like by-products or drunk by their families.

**Employment:**

As per government data, there are about nine crore farmers, and if not exceed similar number of landless agricultural labour. The COVID-19 disease drastically affected the livelihood of landless farmers and of small and marginal farmers. Those who were engaged in other activities as a part time job such as construction activities, transportation etc. became unemployed and now dependent on Government incentives and benefits. Migrant workers who were indulged in informal sector lost their job and today they are on footpath, and are forced to live meagre life.

**Social and cultural activities:**

There is fear of infection from the neighbours in the society, if someone has other state travel history. These behavioural changes might be due to go out for essential commodities such as purchasing of fruits and vegetables, grocery items, diesel, petrol and for medical emergencies. Migrant workers and private job sector employees who returned to their villages are being treated as source of disease due to fear of infection. Hiding of travel history, misbehaviour and aggression of returned individuals leads to mistrust between neighbours in villages. Farmers with their family either postponed or cancelled the marriage ceremony and other social events till this pandemic ends. Although, domestic violence, drinking alcohol (particularly after lockdown 2.0) and card-playing has gradually increased but are to manage all these hurdles by their own ways and means.

COVID-19 is an unprecedented challenge for Indian subcontinent; however, it has least impact on agricultural sector than other sectors like industries. Although, the government is doing its best at various level to protect the livelihood of farmers such as advanced release of INR 2000 to the bank accounts of farmers as financial support under PM-KISAN scheme, increased daily wage rate under MGNREGA, world's largest wage guarantee scheme, INR 500 per month financial assistance to over 200 million women *via* Jan Dhan scheme, Pradhan Mantri Garib Kalyan Yojna and additional supply of food grain to the registered beneficiaries. The government has launched various mobile based apps to alleviate the problems of farmers in the country (table-2).



**Table 2: List of various mobile based apps for Indian farmers**

| Name of Application (Apps)     | Use   | Link for download   |
|--------------------------------|---|---|
| Kisan Suvidha                  | Weather of current day and next five days, dealers, market prices, agro-advisories, plant protection, contact KCC, soil health card, cold storage and godowns | <a href="https://play.google.com/store/apps/details?id=in.cdac.bharatd.agriapp">https://play.google.com/store/apps/details?id=in.cdac.bharatd.agriapp</a>   |
| CHC farm machinery             | Custom hiring centres for farmers to hire tractors and other farm machineries   | <a href="https://apkpure.com/chc-farm-machinery/app.chcagrimatechinery.com.chcagrimatechinery/download/12-APK?from=versions%2Fversion">https://apkpure.com/chc-farm-machinery/app.chcagrimatechinery.com.chcagrimatechinery/download/12-APK?from=versions%2Fversion</a> |
| Pashuonmes Parjeevi Niyrantran | App provides basic knowledge and creates awareness on the various aspects of parasitic diseases infecting/infesting large ruminants in India.                 | <a href="https://play.google.com/store/apps/details?id=in.res.ivri.parainfo">https://play.google.com/store/apps/details?id=in.res.ivri.parainfo</a>   |
| Kisan                          | Facilitates the farmers   | <a href="https://play.google.com/s">https://play.google.com/s</a>   |

|            |   |   |
|------------|---|---|
| Rath       | and traders across the country for transportation of agri-produce by connecting them with the transporters.     | <a href="https://play.google.com/store/apps/details?id=com.velocis.app.kishan.vahan">https://play.google.com/store/apps/details?id=com.velocis.app.kishan.vahan</a> |
| Mkisan     | Enables farmers and other stakeholders to get advisories and information from experts and government officials. | <a href="https://mkisan.gov.in/mApp/mKisan.apk">https://mkisan.gov.in/mApp/mKisan.apk</a>   |
| AgriMarket | Used to obtain the market price of crops in the market within 50 km of the device periphery.                    | <a href="http://mkisan.gov.in/mApp/MarketRates.apk">http://mkisan.gov.in/mApp/MarketRates.apk</a>   |

However, the Indian government has more challenges ahead because about 85% of total Indian farm households are being small and marginal, and significantly high proportion of landless farm workers. Thus, effective and sincere implementations of agricultural policies by Government and their officials will decide the fate of agriculture and are need of the hour during this pandemic.

**Disclaimer:** The content of this article is a personal opinion and experience of the authors, not necessarily an endorsement or suggestion of the institute where they are associated with.