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A Brief View on Impact Assessment of COVID-19 on Indian Agriculture and Rural Economy

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Perspective

The COVID-19 pandemic is the greatest worldwide humanitarian challenge the world has confronted since World War II. The virus has unfolded widely, and the number of cases is rising daily as governments work to slow it's unfolded. India had moved swiftly, implementing a proactive, nationwide, 21-day lockdown, with the intention of flattening the curve and the usage of the time to plan and useful resource responses adequately. India's effort to combat COVID-19 virus has been praised over the globe [1]. However, the lockdown came with an economic value and cascading impact on all the sections of society. The Covid-19 induced lockdown in India was a large economic shock. It started across the country on 24 March 2020 and is still on-going with restrictions in one shape or different. It stalled the economy with total closure imposed on enterprises over all segments [3]. Even though agrarian exercises were exempted, in the initial stages of the lockdown the agriculture esteem chain also faced huge-scale disruptions. This had a severe detrimental impact on the rural Indian economy. The coronavirus widespread has moreover triggered a massive turn around migration from the urban to rural areas in expansive parts of the nation.

The impact of the spread of COVID-19 and the lockdown on wholesale charges and quantities traded in agricultural markets. We compare whether those impacts differ across non-perishable (wheat) and perishable commodities (tomato and onion), and the extent to which any adverse impacts are mitigated with the aid of using the adoption of a greater number of agricultural market reform measures. We use a granular data set comprising daily observations for three months from almost one thousand markets across 5 states and use a double- and triple- difference estimation strategy. Expectedly, our results differ by type of commodity and period of analysis. While all prices spiked initially in April, they recovered relatively quickly, underscoring the importance of time duration for analysis. Wheat prices were anchored in huge part by the minimal aid price, while tomato prices were lower in some months [1-3] . Supply constraints commenced easing in May with extra market arrivals perhaps reflecting distress sales. Market reform measures did help in insulating farmers from lower prices, but those effects are salient for the perishable goods, and not so much for wheat where the government remained the dominant market player. Taken together, these effects factor to considerable resilience in agricultural markets in dealing with the COVID-19 shock, buffered by adequate policy support.

Issues Faced by Agricultural and Supply Chain

• COVID-19 is disturbing activities in agribusiness and supply chains.

• The non-availability of migrant labour is interrupting a few harvesting sports, particularly in northwest India where wheat and pulses are being harvested.

• There are disruptions in deliver chains because of transportation problems and other issues. Prices have declined for wheat, vegetables, and other plants, but consumers are often paying more.

• India's $14 billion (or Rs 1 trillion) poultry market has begun a culling exercise as consumers have started keeping off bird products for fear of catching coronavirus.

• Weak demand from the poultry sector has resulted in a sharp decline in feed prices too, with each soybean and maize prices falling by almost 25 according to cent in the past months. The poultry market consumes around 1/2 of soybean and maize production in India. Industry estimates peg the loss to the marketplace at Rs 1,000 corer.

• With the mango season just beginning and about 40 per cent produce is sent to foreign nations. Due to closure of exports farmers will suffer huge losses.

Precision farming is the most attractive end-user industry in the virtual agriculture market

The precision farming market is likely to extend within the long term after the COVID-19 outbreak, as accuracy farming makes it possible to screen the state of the crops while not being physically present through using automation, minimizing the need to contact other people, [3] which is vital during those times. This farming is an approach where inputs are utilized in precise amounts to get increased average yields, compared to traditional cultivation techniques. However, in the short term, COVID-19 would affect the market and the growth of the market might be relatively slower in the first and second quarters of the year 2020 due to economic slowdown and inflation.

These practices save time and costs: decrease fertilizer and chemical application costs; decrease contamination through less utilize of chemicals. Also, they help in monitoring the soil and plant physiochemical situations: with the aid of using placing sensors to measure [1] parameters such as electrical conductivity, nitrates, temperature, evapotranspiration, radiation, and leaf and soil moisture, so that the optimal conditions required for plant growth may be achieved. These factors help to obtain a greater output with limited labour force during this pandemic situation where there is a shortage of labour and thus would help in a regular supply of food, thereby ensuring food security.

COVID-19 incidence

Mandi administration changes in relation to COVID-19 can be mapped into the different phases of lockdown that started from the end of Walk 2020. Figure 1 presents the distribution of districts with the aid of using the full wide variety of COVID-19 cases. Among

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the assessed districts, 35% had < 100> three hundred instances. The average per district was 337 [1-3], showing the concentrated nature of disease spread. Note that these are recorded cases; the actual caseload is expected to be much higher. However, this under-reporting does not rely for our analysis, unless the extent of under-reporting varies systematically across districts. It is the relative variation between "high" and "low" caseloads that the empirical strategy exploits.

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