

RAPORTEURS' REPORTS

Covid and the Agricultural and Rural Economy

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I

BACKGROUND

The Covid pandemic has thrown unprecedented challenges before humanity. Globally, in addition to the public health challenges, it has affected movement of people, commodities, contraction of employment, loss of livelihoods and hampered the pace of growth. In India, it resulted in loss of 4,49,260 lives,¹ a historically unprecedented contraction of incomes (Dhingra and Ghatak, 2021) and has shattered livelihoods of millions of population. The country imposed a nationwide lock down on 24th March 2020, which was extended with State specific relaxations till 30th May 2020. The first wave of the pandemic occurred during March 2020, followed by a second wave during April 2021. The pandemic and the associated measures adopted to deal with it has resulted in significant social and economic changes –in addition to the public health challenges- that affected millions of people in the country. Although this has impacted all the sectors and spheres of life, the short term and long term impact on agriculture sector, which is the most significant source of livelihood for rural India is a matter of grave concern. It is important to analyse and understand the impact of the Covid pandemic, the nature and extent of impact on agriculture and allied sectors, and the potential ways and strategies to tide over the crisis (Ramakumar, 2020 and the contributions to this volume on Covid 19). With this objective, the conference has invited papers on the theme “Covid and the Agricultural and Rural Economy”. It is to be noted that the pandemic and the measures taken to deal with it has raised several challenges to carry out studies, with respect to logistical arrangements for field work, data collection and mobility for accessing resources. In spite of all these challenges there were 34 paper submissions, out of which after screening and review, we have selected three papers to be published in full length and 22 papers in summary form.

The selected papers focus on performance of the agriculture sector in terms of trends in trade, commodity movements and market arrivals in domestic markets, prices, issues in supply chain management and losses during the period, constraints in input management, labour use patterns, employment, indebtedness, migration, income levels of various categories of population, consumption patterns and role of institutions in dealing with the challenges of the pandemic. The papers submitted have a wide geographic coverage with State level studies (in addition to country level

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studies) providing a pan-India understanding of the nature of the crisis, its impact and strategies to address the challenges. The major findings of the accepted papers are summarised based on broad themes.

II

PERFORMANCE OF AGRICULTURE SECTOR DURING THE PANDEMIC

The paper by Gaurav Tripathi *et al.*, based on data from official sources on production, value and trade and from CMIE on consumption, incomes, labour participation and unemployment analysed the impact of Covid on agriculture and rural livelihoods at the national level. It points out that Covid-19 has not adversely affected production, growth, and trade in the agricultural sector. But the lock downs resulted in unemployment, erosion of incomes, and decline in consumption in both rural and urban areas. The paper concludes that there has been a differential impact on people where those in the urban areas suffered more than those in the rural areas and those in the lower rungs impacted more than those at the top.

The study by Vinod Kumar analysed trends and performance of agricultural trade during 1990-91 to 2020-21. In spite of COVID-19 pandemic, agriculture exports from India increased from Rs.253976 crore in 2019-20 to Rs.305469 crore in 2020-21 and net agriculture export surplus has also increased to Rs.147681 crore in 2020-21 from Rs.105530 crore in 2019-20, registering a growth of 20.75 per cent and 39.94 per cent, respectively compared to the previous year. It is to be noted that during 1990-91 to 2020-21, agriculture exports grew (13.99 per cent) less than the agriculture imports (16.85 per cent). However, agriculture trade grew more than the total merchandise trade in the country. Further the study suggests that there is a need to focus on diversification of agricultural exports to more products and more destinations.

III

IMPACT ON AGRICULTURAL MARKETS AND PRICES

Majority of the papers focused on the impact of Covid on performance of agricultural markets, in terms of arrivals, prices, returns to farmers and issues related to supply chain management. Manish Sharma's study using weekly data on price variation and market arrivals estimates economic losses for vegetables in NEPA market in Meghalaya during the lock down period and concludes that there were huge losses and price variations suffered by marketing actors. Ginger sales and marketing were hit by pandemic and because of lack of demand vegetables were sold at half the normal prices. Government policies and measures were not sufficient to address the problems. The paper by Babita Kathayat *et al.*, analyses the immediate impact of COVID-19 induced lockdown on the onion wholesale prices across 11 states in India. Price volatility increased in all the states while its persistence was higher in 6 out of the 11 states studied post-lockdown. In case of Maharashtra, Rajasthan, Punjab, Kerala and Himachal Pradesh, it was nearly same or slightly lower than 2019. The

Regression Discontinuity analysis estimates show that COVID-19 restrictions had a significant positive impact on wholesale prices right after the announcement of lockdown. However, major onion importing states like Punjab and Uttar Pradesh remained relatively unaffected in the immediate period after lockdown. The article by Deluwar Hoque and Chandan Hazarika attempts to assess the impact of COVID-19 and measures of lockdown on the farmers producing vegetables in the rural areas of Barpeta district in Assam. The study finds that the restrictions affected transport of vegetables and marketing activities in rural and urban areas. This has adversely affected the income and livelihoods of farmers in Barpeta district of Assam.

Rashmi and Harindra Prasad Singh in their paper attempt to assess the impact of Covid-19 on wholesale prices of Wheat in the States of Uttar Pradesh, Madhya Pradesh, Gujarat, and Maharashtra. The analysis of monthly prices for the months of April, May and June across 2019, 2020 and 2021 reveals that the wheat prices were at the level of minimum support prices in the States studied. Also, impact of lockdown decreased monthly wholesale price in all the States, and the price risks were also higher, except in Uttar Pradesh. The paper by Shefali Srivastava and S.K. Srivastava analysed the changes in the supply and price levels of potato markets in the State of Uttarakhand. Based on data on arrivals and prices during 2019-20 and 2020-21, the study finds that there was a decline in arrivals of potatoes and the prices were higher during 2020-21 compared to 2019-20. The study concludes that Covid pandemic has adversely affected the arrivals and prices of potatoes in Uttarakhand.

Ranjit Kumar Paul and Md. Yeasin analysed the impact of lockdown on wholesale and retail prices of pulses in five major Indian markets of Delhi, Mumbai, Kolkata, Chennai and Hyderabad. The study using ARIMA and GARCH models shows that, the lockdown has a significant impact on both the wholesale and retail prices of pulses and significant impact on price volatility. Among the markets studied, Mumbai has seen the highest increase in retail and wholesale prices, followed by Chennai during the lockdown period. Delhi had the lowest price increases for both retail and wholesale, followed by Kolkata.

The paper by N. Lalitha and Soumya Vinayan based on a qualitative analysis of nine horticulture producers in Kutch, Gujarat analysed the differences in the impact of the pandemic on horticulture producers. Products like mango, pomegranate and date palm which depend on the traders and market outside Gujarat experienced reduced price for their product as well as losses. Producers of a relatively recent entrant fruit like kamalam fruit in the horticulture sector of the region could manage to get better prices, based on the health benefits to the consumers and shorter supply chain. Similarly, Bakhtaver Hassan *et al.* in their paper, based on primary data from major horticultural districts attempts to assess the impact of Covid-19 on the horticultural sector of Jammu and Kashmir. The study concludes that all the major districts of the region have been drastically hit by disruptions in production and marketing. It estimates that nearly 78 per cent of the farmers failed to use chemicals and fertilisers on time which resulted in a 13 per cent decline in production in the

region. The study reveals that 58 percent of the farmers witnessed fall in production, and 60 percent of the farmers witnessed decline in farm gate prices.

Isabella Agarwal *et al* focuses on analysing the global and national cotton economy during the pandemic period and its impact on cotton farming in India. It notes that there was a decline in cotton prices during the initial period of the pandemic, but recovered with the easing out of restrictions. The area and production was not significantly affected because of the pandemic. The cotton value chains faced some disruptions and there were issues with respect to labour availability for movement and transport of cotton. The article by Kanimozhi K *et al.* analysed the cost and returns, production efficiency and constraints in Bt cotton cultivation across farm size categories in covid year (2020-21) and normal year (2019-20) in Thiruvarur district of Tamil Nadu and Karaikal district of Puducherry U.T. The study reports that cotton growers suffered losses during the Covid period due to lower prices. The prices during Covid period declined by around 64 per cent resulting in losses for all size classes of cultivators.

The study by Sangeet Ranguwal tried to identify and assess the impact of the pandemic induced economic slow down on agricultural production and marketing in the state along with mitigation strategies followed. Based on primary data collected from farmers belonging to different agro-ecological zones, the study finds that during the pandemic, the wages tripled, there was an increase in area under paddy, but decline in area under cotton and sugarcane. There was also a sharp increase in the cost of cultivation of several *kharif* crops in the State. This was mainly on account of increase in the cost of hired labour, material inputs (seeds, fertilizers) and machine use. The increase in the costs of inputs were due to disruptions in the supply of inputs and shortage shown by the market agents. Marginal and small peasants, were disproportionately affected due to an increase of diesel prices. The paper by Urmi Pattanayak explores the obstacles faced by the farmers during pandemic to diversify crops in Odisha. The study finds that crops diversity is significantly and negatively influenced by change in harvest cost, change in transportation cost, labour issues, market distance and restricted field working hours. The article by F.A. Shaheen analysed the food security scenario of the Jammu & Kashmir with respect to domestic production, imports and food management through public distribution schemes and other open market system. In the background of the disruptions in the agricultural production systems, the paper proposes some measures that can contribute towards ensuring food security of the region. The paper also analyses some of the interventions that can be adopted to meet labour related constraints in the farm sector.

IV

LIVESTOCK AND COVID PANDEMIC

Livestock sector is known to be a shock absorber in unfavourable production environments and plays a significant role in sustaining household incomes and

resilience in rural areas. There were only few papers focusing on livestock sector. The study by K. Haritha *et al.* attempts to assess the multi-dimensional impact of the crisis associated with Covid-19 pandemic on dairy farmers of Kozhikode district in Kerala. It observes that a drop in milk prices and consequent losses in income and dry fodder shortage emerged as the major problem during the pandemic. The losses increased significantly in the cases where dairy farmers were selling milk directly to the consumer households. Adoption of mixed marketing channels over the cooperative channel has also led to more losses. They conclude that cooperatives acted as a safety net during the crisis and protected the interest of the member farmers to a good extent. Looking for prospects of getting new consumers, preparation of ghee from surplus milk and preparation of feed mix at home were the main coping strategies adopted by the farmers. Rizwan Ahmed's paper has analysed the impact of Covid-19 on impact on Assam's dairy industry using primary data from dairy farmers in Kamrup rural and Kamrup metro districts of Assam. The farmers experienced three types of problems; issues in production and transportation, difficulties in sales of milk to processors, and problems in financial management. It finds that about 60–70 per cent of the commercial dairy farms reported a shortage of workers and an increase in average feed costs by 5 per cent to 10 per cent. As a result of these 88 per cent of farmers experienced 20 per cent reduction in prices.

V

IMPACT ON INCOMES AND LIVELIHOODS

Surendra Singh Jatav in his paper attempts to assess the livelihood vulnerability of rural households to Covid-19 based on a study of two villages in Uttar Pradesh. The findings suggest that rural households are aware of Covid-19 and also equally sensitive to inadequate and poor availability and accessibility of clean water, sanitation and health care system. There are differences in vulnerability among households in study villages and he recommends public spending in health support systems. The paper by M. Areef and Y. Radha analysed the income inequality among agricultural households in South Coastal Andhra Pradesh. The decomposition of Gini coefficient by income sources revealed that among various income sources of agricultural households, livestock and agricultural wages have a larger equalising effect and cultivation and off-farm income have an un-equalising effect on income distribution. The study concludes that livestock and agricultural labour market has the potential to enhance income and minimise income variability of marginal and small farmers. The paper by Ritam Dutta based on study of seven villages spread over three States of Bihar, West Bengal and Tamil Nadu in India tries to understand the status of household indebtedness and how the pandemic has affected that. The study concludes that pandemic has led to an increase in household indebtedness due to a major loss in income and employment. There was an inequitable access to cheap credit, where Dalits and small peasantry were left out. The pandemic situation has further worsened the access to credit for vulnerable groups.

VI

INSTITUTIONS DURING THE PANDEMIC

Institutions play a significant role in addressing the challenges due to the crisis and implementing strategies and programmes to tide over them. Appropriate and inclusive institutions can ameliorate the severity of the crisis and can effectively support efforts for restoring and rebuilding livelihoods. The paper by Sabina Yasmin and Shailender Swaminathan focuses on whether participation in community organisations like FPO have positive impact on agricultural income and improve their resilience against incidents like Covid pandemic. The findings suggest that there has been an increase in farmers income and the creation of assets because of this has increased the resilience of farmers who were part of the AGRIP project. This was achieved largely through participation in community organisations like FPOs which has enhanced incomes through value chain interventions. Similarly, Prema *et. al.* in their paper, based on analysis of two case studies and a survey of a limited number of JLG/micro enterprise group members of Kudumbashree in Kerala have analysed the economic impact of COVID-19 on agri based micro enterprises and the livelihood of the members during lockdown phase. The study finds that micro enterprises have suffered losses during this period. Women led micro enterprises studied have suffered 14 per cent decline in their annual profits. Despite these constraints and losses, they contributed to the social cause through running community kitchens and supply of materials.

VII

ISSUES OF MIGRATION

The issue of migration and migrant workers have gained much attention during the pandemic. The plight of migrant workers returning to their native villages, and the short term and long term social and economic challenges and impacts due to this has important consequences for agriculture and rural economy. There were only two contributions to the Conference that focuses on this aspect. Brajesh Jha in his paper discusses the important issue of migration and the various factors that influence rural urban migration in a wider context, and raises concern about the vulnerabilities of migrant workers. It also analyses the various measures taken to address concerns of migrant workers during the pandemic period. In the context of the changes in production relations in agriculture and rural economy, the paper argues that decentralized manufacturing is key to non-farm growth in rural areas. This can contribute towards addressing the issue of rural urban migration and associated distresses. A.K. Gauraha *et al.* in their paper have analysed whether the pandemic have any impact on income, employment and consumption patterns on migrant labourers in Mungeli district of Chhattisgarh. From the analysis of data collected from migrant workers in the State, the study finds that the pandemic has impacted the

pattern of livelihoods and caused a decline in incomes. Also consumption pattern shifted more towards essential commodities compared to the pre-pandemic period.

VIII

PUBLIC SUPPORT PROGRAMMES

The most challenging task in the event of a disaster of this scale and magnitude is to bring in strategies and implement programmes that help communities to tide over the short term and long term impacts. The public support programmes implemented by the State has a major role to play in this. Unfortunately, there is only one contribution to the conference that focused on this aspect of the crisis. Aditya Namburi *et al.* brings out the role of MGNREGS as one among the major public support programmes in the event of Covid-19 pandemic and the associated measures to deal with loss of livelihoods, employment and ensure food security. The study based on MGNREGS in Palghar district of Maharashtra, examines the performance of MGNREGS in dealing with the crisis created due to the pandemic in terms of levels of employment, wage rates and tackling the issues of returning migrants. Finally, the study concludes that the beneficiaries felt general dissatisfaction with employment opportunity, asset creation and its overall impact on their livelihood.

IX

ISSUES FOR FURTHER DISCUSSION AND RESEARCH

The papers submitted on the theme analysed important issues related to impact of COvid-19 on agriculture production and rural economy. The major focus was on understanding the trends in agricultural production, trade, issues related to marketing, supply chain management, prices, labour use, employment, migration, livestock sector, incomes and role of public programme. The major issues that still needs to be studied in detail to understand the impact of Covid in agriculture and rural economy are the following.

- (a) The studies so far largely focus on the short term impacts of the pandemic. There is a need to continuously analyse, assess and understand the long term impacts in terms of food and nutritional security, changes in employment scenario, incomes and livelihoods of various sections of the population, consumption patterns, changes in technology transfer and natural resource management strategies and programmes to address the social and economic problems due to this crisis.
- (b) The major focus of the papers were in understanding the impact on supply side factors related to agricultural production and rural economy. But an in-depth understanding of the impact on demand side factors that has suffered severely in terms of long term impact on incomes, consumption, and livelihoods is inevitable for meaningful interventions.

- (c) There is an urgent need to understand the differential impact of the pandemic on various sections of the population, particularly on the vulnerable sections of the society. This will help in formulating strategies that can contribute to sustainable and inclusive development.
- (d) The papers are silent on the gender dimension of the impact and its effect on gender relations in agriculture and rural economy. This impacts upon various aspects of the rural society, and the strategies and programmes to deal with it should necessarily be refined through a gender lens.
- (e) The whole question of role of various types of institutional arrangements on various sectors, its effectiveness in dealing with situations like this needs to be carefully studied and understood. The strength and weaknesses of Panchayati Raj Institutions, co-operatives and similar institutions need to be relooked and roles redefined in this context. This is very important in designing inclusive and sustainable strategies to support communities that are affected by disasters and build resilience among them.
- f) Through the pandemic, there are important lessons to be learnt in terms of resilience among individuals and communities, and the role of public supported institutions and social protection programmes in infusing and supporting resilience to them. Few examples are of that by the Public Distribution System and Integrated Child Development Services. These were built over long term investments in such institutions and social protection programmes, which need to be protected and sustained through appropriate investments and public support. There should be studies to understand their value and role in supporting lives and livelihoods of the vulnerable, and building resilience of communities in the background of a crisis of similar scale and challenge.

NOTE

1) As per the official estimates given by the Ministry of Health and Family Welfare, Government of India on 05-10-2021 accessed at <https://www.mohfw.gov.in/>.

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