

# IMPACT OF COVID-19 ON AGRICULTURE IN COLD ARID LADAKH

**Marginal and Small farmers hit hard, increases cost of cultivation, boost for family farming**

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## ABSTRACT

Worldwide, COVID-19 pandemic resulted in huge loss of life and to contain its spread, large scale restrictions on every type of movement were enforced. These restrictions affected the agriculture sector, disrupted the food supply chain system ultimately affecting the farming community. A study conducted to explore the effect of COVID-19 in the cold arid Leh district of Ladakh division was conducted. The study came out with the conclusion that marginal and small farmers were hit hard by the lockdown. Labour availability became a major problem during lockdown and this increased the cost of cultivation by about 20 to 30 per cent. Another 63% of the farmers could not get vegetable seeds and other inputs in time. About 8% of the farmers reported to have left their land fallow due to the apprehension of labour shortage. However, the lockdown had also some positive effects. It came as a boost for family farming. As the family members who were studying or working away from their homes had to return home, they contributed towards various farming operation in their families.

**Keywords:** COVID-19, restrictions, cost of cultivation, labour shortage, inputs

Agriculture in the country is the primary source of livelihood for about 58% of India's population. Gross Value Added by agriculture, forestry, and fishing was estimated at ₹ 19.48 lakh crore (US\$ 276.37 billion) in Financial year 2020. Share of agriculture and allied sectors in gross value added (GVA) of India at current prices stood at 17.8 % in FY20 (IBEF, 2020). It is the largest producer of pulses, spices, milk, tea, cashew, jute, banana, jackfruit and many other commodities (FAO). The country has made a remarkable progress in the food grain production since independence. It was again heading for a big

show in the year 2020 when the COVID-19 pandemic struck the country. Unfortunately, that was the time for harvest of 'rabi' crops all throughout the country. The deadly virus was to be contained and so the country was locked down by the end of March. Every type of movement was restricted. Factories and industries were shut and so was manufacturing. The

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impact of this lockdown on the Indian economy has been devastating. Infact, there is hardly any sector which has escaped its impact. This also impacted the agriculture in the country and the impact is complex and varied across regions and across different segments that form the agriculture value chain. The lockdown upended agriculture, the life line of the country's rural economy, cutting off the farmers from the buyers.

## COVID-19 and Agriculture

The COVID-19 pandemic had brought a production halt too. All the bottlenecks including restriction in physical movement lead to a fall in farm prices. Tomato growers in Maharashtra were reported to be receiving not even ₹ 2 per kg. Grape growers are reported to be facing an aggregate loss of ₹ 1000 crore because of the crisis, as demand has fallen. Wheat prices in Madhya Pradesh are reported to have fallen from ₹ 2200/qtls to about ₹ 1600/qtls by March 25, 2020. For many crops, these prices are also below the Minimum Support Prices announced. In Punjab, vegetables that were sold at ₹ 15/kg are reportedly being sold at a mere ₹ 1/kg (R. Ramakumar, 2020). A nationwide survey conducted across 200 districts in 12 states of the country also revealed that all is not well with the farming community in these testing times. This survey was conducted by the Harvard TH Chan School of Public Health, Public Health Foundation of India and Centre for Sustainable Agriculture from May 3 to May 15, 2020 with farmers across Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Telangana, Uttar Pradesh and West Bengal being roped in for the survey. Around 52 per cent of the respondents were small and marginal farmers, 6.7 per cent were landless farmers, 19.9 per cent medium farmers and 20.7 per cent were large farmers (Shagun Kapil, 2020).

More than half the farmers who harvested their crops reported to have suffered a lower yield during the nationwide lockdown, compared to the last season of sowing the same crop. The lockdown to curb the spread of the novel corona virus disease also forced 55 per cent of the farmers to store their crops as they were unable to sell them. Losses for 40 per cent of the farmers who experienced a yield loss, occurred from a lack of labour, storage or transport options, said the

survey. Around 30 per cent of them were unable to harvest their crops because of issues related to the lockdown. Out of the 63 per cent farmers who could harvest their crops, 22 per cent had to store their crop due to lockdown related issues. The unemployment in the country was also reported to increase from 6.7% on 15 March to 26% on 19 April and then back down to pre-lockdown levels by mid-June (Vyas and Mahesh, 2020).

As with other parts of the country, the covid-19 also impacted agriculture in the cold arid Ladakh region in multiple ways. The present research study was undertaken to analyze the impact of COVID-19 pandemic on the agricultural sector in this cold arid region with the following objectives:

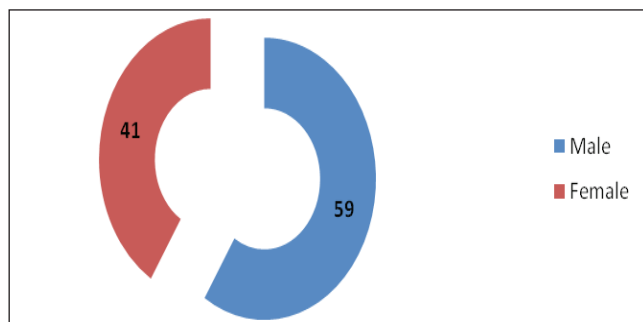
- (i) To know the impact of COVID-19 on various aspects of crop production.
- (ii) To get an information about the reach of PMKISAN among the farming community.

## RESEARCH METHODOLOGY

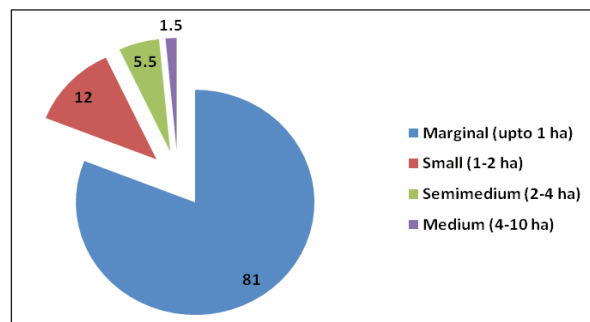
The study was done with seventy farmers selected randomly from fourteen villages of Leh district. The villages covered for the study were Martselang, Chemday, Matho, Spituk, Sakti, Saboo, Takmachik, Digger, Tyakshi, Hemis, Phyang, Saspol, Tukcha and Liker. The response of the farmers was collected telephonically as well as by personal interview.

## RESULTS AND DISCUSSION

The study was conducted with 59% of male respondents and 41% of female respondents in which 81% of the respondents were marginal owing up to one hectare of land, 12% of the respondents were small with land in between 1 to 2 hectares and 7% of the respondents have land more than 2 ha. The time the virus struck the region and lockdown was enforced, it was the peak season for farmers' to prepare for vegetable production. They had to get the seeds and other inputs for sowing of vegetables as well as for raising nursery. Finding themselves squeezed under lockdowns and social distancing and with no transport option, vegetable farmers were the most to face the brunt of COVID-19 pandemic. Due to lockdown 63% of the farmers' could not get the vegetable seeds and other inputs in time. This delayed their sowing by about 1 to 1.5 months and



**Fig. 1:** %age of male and female farmers



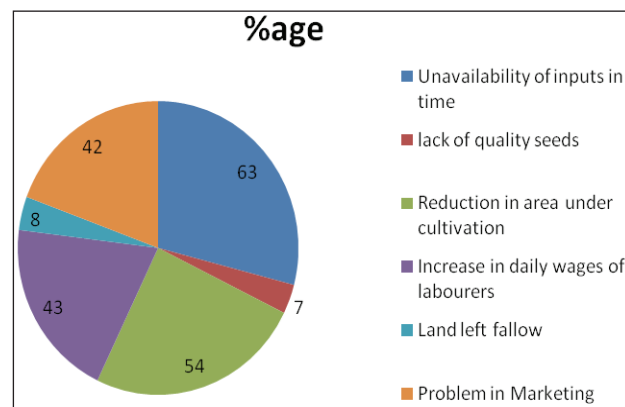
**Fig. 2:** %age of farmers by size of landholdings

54% of those who could not get the inputs in time had to reduce their area under vegetables by 30 to 50 per cent. A small 7% of farmers also complained of lack of quality seeds. The seeds they purchased from the market were not of good quality and were expensive also.

Lockdown also resulted in shortage of labour. Due to lockdown, the labourers that usually come from other states did not come and this resulted in labour shortage. Ajang Rinchin, a progressive farmer from Village Saboo told that usually 250-300 labourers arrive in their area at that time, but now only 20-30 are present. This labour shortage has resulted in a huge jump in their daily wages. Normally, they were available at rupees 400 to 500 but now they are taking rupees 600-700 per day. As much as 74% of the respondents reported labour shortage, but only 43% of them suffered due to increase in daily wages by this labour shortage. This increase in wages per day increased their cost of cultivation by 25-30 per cent. This increased cost has been gnawing away at their earnings. Now, it is a tough job to find labour in this region. For the rest, the lockdown came as a blessing for family farming. Lockdown forced all the family members to return back to their homes and with all the members back to home; the labour shortage was compensated and all the agricultural activities were done by the family members themselves. Apprehension of labour shortage also compelled the farmers to force some of their land fallow. About 8% of the farmers reported that they have to leave some of their land to be under Barley fallow due to the apprehension of labour shortage at the time of harvesting.

On the demand side, there has been a temporary closure of food outlets and services. Customers have

also reduced their visits to traditional markets out of fear of contracting the virus. This has also made the marketing of the produce to suffer. Still transport not running to its full and rapid decline in the tourist footfall and outside labourers; the vegetable growers are at the receiving end. 42% of the respondents reported that they are facing problem in selling their produce with the sale coming down by 30-50%.



**Fig. 3:** Impact of COVID-19 on farming community

The study also tried to explore the reach of Pradhan Mantri Kissan Samman Nidhi (PMKISAN) scheme under which rupees 2000 is credited in the account of eligible farmers thrice a year. The findings confirmed that the farming community is aware of the PMKISAN which is popular as Modi scheme among them. Only 17% of the respondents were not aware of the PM KISAN. Of the remaining 83%, who were aware of this scheme, 60% were either govt. employees or pensioners and hence not eligible for PMKISAN. Similarly 24% of these respondents were eligible but not receiving PMKISAN benefits. Only 16% of the farmers who knew about the scheme are receiving the assistance under PMKISAN.

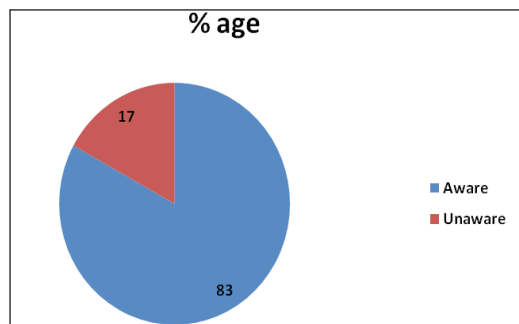


Fig. 4: Awareness about PMKISAN

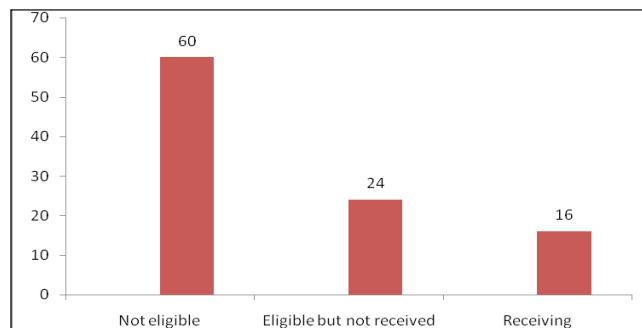


Fig. 5: Statistics about PMKISAN (%age)

## CONCLUSION

The impact of COVID-19 on the economy is no doubt devastating. Its impact on agriculture is complex and varied across different segments that form the agricultural value chain (Ananth, S. 2020). To sum up, the COVID-19 has also impacted agriculture in this cold arid region by increasing the cost of cultivation, reducing the area under different crops and affecting the marketing of produce. However, the positive side of this lockdown has been the boost to family farming. The return of family members back to home has also helped them a lot in terms of saving the amount they would have given to labourers for performing various agricultural operations. Regarding PMKISAN, the encouraging thing that it was widely hailed by those receiving it; duly acknowledging that the amount is helpful in purchasing inputs like seed and manures. However most of the farmers wanted the government to enhance the amount as the present amount is not sufficient to meet the expenses of farm.

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