



Impact of COVID-19 Lock down on Farmers of Nalgonda District, Telangana State

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ABSTRACT

COVID-19 is the greatest humanitarian challenge the world has faced and effected agriculture and allied sectors. The study was carried out to know the Impact of COVID-19 lockdown on farmers and allied sectors in terms of Social, Economic, Psychological, Situational parameters. The Google form Questionnaire was used to collect the information from randomly selected 120 farmers of Nalgonda district. It was observed that non-celebration of important events (98.33%), high labour wages coupled with low market price of horticulture produce drastically affected the farmers returns (85%) and majority of farmers had fear of increasing debts due to low market price of produce (80%) and non-availability of agriculture labour for performing field operations (70%) etc. were the major Social, Economic, Psychological and Situational effects on farmers respectively. In case of impact on agriculture and allied sectors, despite the problem few of the farmers adopted alternative mechanism of door-to-door supply of fruits and vegetables, few of the villagers aggregated their vegetable produce and marketed to nearby local towns and cities. Majority of the farmers found that technology driven advisories issued by KVK, Kampasagar, Nalgonda District has helped the farmers to tackle the problems timely.

INTRODUCTION

Agriculture and its allied sectors like animal husbandry, fisheries etc., are the largest source of livelihood in India. About 65 per cent of rural household still depend directly on agriculture for the livelihood. De et al., (2005) opined that India has been traditionally vulnerable to natural disasters because of its unique geo-climatic conditions, droughts, floods, cyclones, landslides and earthquakes. The outbreak of novel COVID-19 disease has left no sectors untouched Saadat et al., (2020). The COVID-19 pandemic has brought new risks that threaten livelihood of small and marginal farm holders and food security of the nation. As a result of the pandemic, many people have avoided large gatherings, encouraged physical distancing, and quarantined citizens (Gupta & Madgavar,

2020). The Lockdown led to sudden termination of all economic activities in the nation and has disrupted the production and supply of goods and services in different sectors. Measures effecting the movement of the people and resulting the labour shortages will have an impact on agricultural value chains, affecting food availability and market prices globally (FAO, 2020).

The major crops grown in Nalgonda District are Paddy, Cotton, Redgram, Sweet orange and Vegetable crops. Harvesting and marketing of crops was in crisis in the whole country due to the shortage of labour and restrictions imposed by Government during the initial period of lockdown. Farmers were struggling to harvest crops as well as market *Rabi* produce. Maintaining an undisrupted supply chain and access to markets for small / marginal farmers was the major challenge during the lockdown period. The

worst part of imposing social restriction was that it coincided with the country's peak harvesting time of variety of crops in both *Kharif* and *Rabi* seasons in 2020-21. Farmers are exploring alternate channels to directly sell to consumers through farmer producer companies or linking directly to retailers and wholesalers in urban centres (Ravula & Dandugudumu, 2020). The study was carried out to know the Impact of COVID-19 lockdown on farmers and allied sectors in terms of Social, Economic, Psychological, Situational parameters.

METHODOLOGY

The major crops grown in Nalgonda District were paddy, Cotton, Sweet orange and other vegetable crops viz., Tomato, Chilli, Brinjal and leafy vegetables etc. COVID Lockdown showed impact on farmers and this study was planned to see the impact of Lockdown on different aspects such as agriculture, horticulture, agricultural labourer, marketing, farmers social, economic and psychological conditions and other allied sectors. The study was conducted among the farmers of Nalgonda District of Telanagana State during the Lockdown period. A cross sectional online survey was conducted among the farmers using google form questionnaire. The questionnaire includes the statements in local language i.e., Telugu regarding Social, Economic, Psychological and Situational effects of famers and also impact on agriculture and allied Sectors. The Google form link was circulated through WhatsApp groups to collect information from farmers. Respondents were selected randomly from six divisions of the district i.e., Miryalaguda, Nalgonda, Halia, Devarakonda, Munugode and Nakrekal divisions for the study. Two mandals from each division i.e., total of 12 mandals and one village from each mandal i.e., total of 12 villages were selected randomly. From each selected village 10 respondents were selected randomly, thus a total of 120 respondents were constituted as a sample for the study. The farmers were asked to respond for each statement and responses (Yes or No) were collected against each statement. For calculating each dimension's impact Frequency, Percentage and Mean were used.

RESULTS AND DISCUSSION

Impact of COVID-19 lockdown in terms of social effects on farmers

The data (Table 1) reveals that 85.00 per cent of farmers had fear of disease spread from neighbors in the society and felt that maintenance of social distance and following precautionary measures is only safest way of avoiding COVID-19 spread Singh et al., (2021); Roy & Ghosh, (2022) and 51.67 per cent farmers restricted

their movement to home, fields and for other daily essential needs. Providing food grains, fruits, vegetables and other essential items both in rural and urban areas, is the most vital challenge and due to lockdown public transportation and distribution system has been severely affected as such scarcity of public commodities was expressed by 65.00 per cent. Due to lock down many festivals, family events, fairs and social/cultural events have been cancelled and postponed, almost 98.33 per cent of respondents agreed that they were not carried out any kind of events in their vicinity. Cancellation of events and celebrations had a profound impact on social and family relation of individuals Vatta & Tiwari (2020). Majority of respondents 68.33 per cent believed that during lockdown they are spending more valuable time with themselves, they spent quality time with their family and got more time for communication with near and dear ones.

Impact of COVID-19 lockdown in terms of economic effects on farmers

Data (Table 2) revealed that when lockdown was announced, it was the peak season of *Rabi* 2019-2020 and paddy harvestings were started. In order to avoid the glut of produce at the procurement centers, Telanagana State Government initiated token system and helped the farmers and procured Paddy in a systematic manner was expressed by 80.83 per cent Rose & Aiyappanpillai (2020). Unavailability or scarcity of farm labour increased the daily wages 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 operations either by manually or through combine harvesters. Shortage of labour at peak time of harvesting of vegetables Deshmukh, (2020) and fruits increased daily wages and low market price of the produce drastically affected the farmers' returns expressed by 85 per cent. Respondents 61.67 per cent opined that vegetable farmers were forced to sell their produce at lower prices due to impact of COVID-19 and they didn't get required support price for their produce. It was revealed that 40.83 per cent of respondents expressed that the prices of Agri-inputs has increased because of lower availability due to complete lock down and disruption in supply, closure of markets and shops lead to low purchasing power by farmers as they faced difficulty in marketing of their produce (Govindaraj et al., 2022). During COVID-19, Central Government has helped financially to needy and beneficiary farmers through PM Kisan Samman Nidhi (KISAN) Yojna by Central government Rs. 6000 and Rithu Bandu Scheme by State

Table 1. Impact of COVID-19 lockdown in terms of social effects on farmers (N=120)

S.No.	Items	Yes	No	Mean
1.	Maintenance of social distances and following precautionary measures.	102(85.00%)	18(15.00%)	0.85
2.	Movement is restricted to home, fields and for daily essential needs.	62(51.67%)	58(48.33%)	0.516
3.	Scarcity of public commodities.	78(65.00%)	42(35.00%)	0.65
4.	No Social/cultural Events, Non celebrations of important events have showed impact on family and social relations	118(98.33%)	02(1.67%)	0.983
5.	Spending time with family members	82(68.33%)	38(31.67%)	0.683

*Figures in parenthesis: Percentage of respondents

Table 2. Impact of COVID-19 lockdown in terms of economic effects on farmers (N=120)

S.No.	Items	Yes	No.	Mean
1.	Government initiative of Token System helped the farmers in procuring the Paddy produce and obtained amount.	97(80.83)	23(19.17)	0.808
2.	High labour wages coupled with low market price of the produce affected the farmer's returns.	102(85.00)	18(15.00)	0.850
3.	Impact of lock down on farmers availability of support price of the produce	74(61.67)	46(38.33)	0.616
4.	Whether Prices of Agri-inputs has increased	49(40.83)	71(59.17)	0.408
5.	Opinion about financial assurance from Central govt. through PM-KISAN Yojana and State Dept through Rythu bandu as a help for farmer	92(76.67)	28(23.33)	0.767

* Figures in parenthesis: Percentage of respondents

Government Rs. 8000 directly to the farmers' bank accounts through direct benefit transfer (DBT) was agreed by 76.67 per cent of respondents Lindsay (2021).

Impact of COVID-19 lockdown in terms of psychological effects on farmers

It was evident while studying the impact of COVID-19 on agriculture and allied sectors, various effects on psychological parameters were also studied (Table 3). The study revealed that majority of 74.17 per cent respondents felt that they should support the needy persons around them with donation of food, money and most importantly morally during distress situation. During COVID-19 infection in the country, majority of respondents 52.5 per cent agreed that they have developed the feeling of frustration when others are not following the pre-cautionary measures. After COVID-19 pandemic the lifestyle of people would change in public and private places expressed by 43.33 per cent. The scope of sanitary practices has been put first by people during this pandemic. The study further revealed that 80.00 per cent farmers had fear of increasing debts due to low market price of produce. The most important issue that farmers have to overcome the problem of repaying their crop loans, gold loans and other informal debts. Low market prices lead to defaulter as unable to repay the amount in time and they are pressured to borrow money

from other informal sources at high rates of interest for the next season Chetan & Yogish (2020). Government has launched the Arogya Setu App and 70 per cent of respondents said that the app has created awareness among people regarding staying away from infected persons, besides regular checkup and other recommendations regarding protection from COVID-19.

Impact of COVID-19 lockdown in terms of situational effects of farmers

It was evident from 51.67 per cent respondents that the shortage of essential commodities and high demand caused the rise in price of goods (Table 4). Due to shortage of labour the harvesting of agriculture and horticulture crops was severely affected as expressed by 64.17 per cent of respondents (Azim Premji University, 2020). Respondents 65.83 per cent expressed that farmers faced problems in transporting and marketing of horticulture produce due to non-availability and restrictions on vehicles for transportation. The first visible impact of COVID-19 under lockdown 1.0 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. Few of the respondents 39.17 per cent opined that the farmers access to basic banking services such

Table 3. Impact of COVID-19 lockdown in terms of psychological effects on farmers (N=120)

S.No.	Items	Yes	No.	Mean
1.	I support the needy persons around me during distress situation	89(74.17%)	31(25.83%)	0.741
2.	Feeling of frustration when others are not following the pre-cautionary measures for COVID-19	63(52.5%)	57(47.5%)	0.525
3.	Lifestyle of people could be changed after COVID-19 pandemic at public and private places	52(43.33%)	68(56.67%)	0.433
4.	I have a mental fear of increasing debts due to low market price of produce	96(80.00%)	24(20.00%)	0.800
5.	I think Arogya Setu App helped people by staying away from infection, symptoms, regular checkups and other recommendations regarding protection from COVID-19	84(70.00%)	36(30.00%)	0.700

* Figures in parenthesis: Percentage of respondents

Table 4. Impact of COVID-19 lockdown in terms of situational effects of farmers (N=120)

S.No.	Items	Yes	No.	Mean
1.	The price of essential commodities has increased	62(51.67%)	58(48.33%)	0.516
2.	Harvesting of Agriculture and horticulture crops were effected.	77(64.17%)	43(35.83%)	0.641
3.	Difficulty in getting vehicles for transportation of produce	79(65.83%)	41(34.17%)	0.341
4.	Access to basic banking services such as deposits/withdrawal were effected?	47(39.17%)	73(60.83%)	0.391
5.	Non-Availability of agriculture labour for performing field operations.	84(70.00%)	36(30.00%)	0.700

* Figures in parenthesis: Percentage of respondents

as loan approvals, deposits and withdrawal were also affected due to restrictions and limited Bank staff. Due to migration of labour to native States and fear of infection and disease spread there was non-availability of agriculture labour for performing field operations expressed by 70 per cent of respondents.

Impact on agriculture and allied sector

The data (Table 5) reveals that 73.33 per cent of the respondents expressed that the availability of Agri-inputs has effected due to restrictions imposed on movement of people, material, closure of shops and availability of agri inputs viz. seeds, fertilizers, pesticides, feed, fodder etc. was declined Alagukannan et al., (2020); Department of Economic Analysis & Research (2020). There was Nation-wide complete lockdown which restricted the movement of people as well as vehicles between states, districts and even local areas but later some relaxation was given to agriculture and farmers could able to arrange combined harvesters at the time of harvesting expressed by 61.67 per cent. Majority of the farmers 90.83 per cent found that the technology driven advisories issued by KVK, Kampasagar in Nalgonda District has helped the farmers to tackle the related problems. Only few Farmers 35 per cent opined that there was delay in receiving payment for the sold paddy produce.

Very few farmers 28.33 per cent expressed that the harvesting and marketing of major fruit sweet orange has been affected majorly due to untimely labour and transport availability lead to poor access to the markets. But, majority farmers sold their produce at low cost in local markets, nearby towns and cities as there is huge demand for citrus fruits during the COVID situation. Marketing of farm products to outside market is the major occupation seasonally to earn income for some local farmers. The impact of lockdown was observed on horticulture sector and it was found that majority of respondents 77.5 per cent agreed that there were

significant post-harvest losses in vegetables and other horticulture produce in the district due to lack of transportation facilities and there were limited merchants to purchase the produce Roy et al., (2022). Regular farm labour unavailability has increased the labour cost and cost of cultivation of crops Chand et al., (2020) as agreed by majority of the respondents 95 per cent. This might be due to shortage of laborers and other reasons such as fear of infection and restriction on movement.

The study revealed that farmers have developed the alternative marketing channels such as door to door supply of essential commodities by following COVID precautions, has proved to be an important tool for empowering the farmers Singh et al., (2020) as agreed by most of the respondents 80.83 per cent. Further, the study revealed that majority of respondents 85.83 per cent highly appreciated the efforts of Government to help the farmers, traders, vendors, etc. in meeting the demand and supply of horticultural commodities up to certain extent. Respondents 30.83 per cent expressed that harvesting and marketing of Fish and poultry was affected more because of rumors that COVID infestation will spreads through eggs and poultry chicken, it has attracted consumers to purchase fishes and very few 20 per cent expressed that the price of the fish has fallen down. Due to restricted movement of people, the Government allowed the farmers with curfew passes to sell their perishable products milk, fish, chicken, vegetables and grains etc. considered as a very prominent and needful decision for farmers, most of the respondents 95.83 per cent agreed and appreciated the Govt. decision. Very few famers 15 per cent expressed that there was problem of selling of milk in the district and few 19.17 per cent also expressed that prices of milk have fallen down. But the lockdown made people more health conscios and demand for milk consumption has increased (Shanabhoga et al., 2022). With the help of curfew passes they could able to sell their produce at better price as there was huge demand in the district.

Table 5. Impact on agriculture and allied sector (N=120)

S.No.	Items	Yes	No.	Mean
Agriculture				
1.	The availability of Agri-inputs i.e., seeds, fertilizers, pesticides has affected	88(73.33%)	32(26.67%)	0.733
2.	The combined harvesters were available at the time of harvesting.	74(61.67%)	46 (38.33%)	0.617
3.	Do you feel that technology driven advisories issued by KVK has helped the farmers to tackle the related problems?	109(90.83%)	11(9.17%)	0.908
4.	Is delay in receiving payment for the sold paddy produce?	42(35.00%)	78(65.00%)	0.350
Horticulture				
1.	The harvesting and marketing of sweet orange has been affected in the district	34(28.33%)	86(71.67%)	0.283
2.	There are significant post-harvest losses in the vegetable and Horticulture crops	93(77.5%)	27(22.5%)	0.775
3.	Unavailability of farm labour increased the labour costs & cost of cultivation of the crops	114(95.00%)	6(5.00%)	0.950
4.	Does alternative mechanism for marketing such as door to door supply of fruits and vegetables has empowered group of farmers?	97(80.83%)	23(19.17%)	0.808
5.	Do you feel that relaxation is given by Govt. has helped the farmers, vendors, traders etc. in meeting the demand and supply of horticultural commodities upto certain extent?	103(85.83%)	17(14.17%)	0.858
Livestock				
1.	Harvesting and marketing of fish was affected	37(30.83%)	83(69.17%)	0.308
2.	The price for the fish has fallen down	24(20.00%)	96(80.00%)	0.200
3.	Do you feel that Government has allowed farmers to sell their products with curfew pass is a good initiative.	115(95.83%)	5(4.17%)	0.958
4.	Do you feel that farmers are facing problem in selling of milk in the district	18(15.00%)	102(85.00%)	0.150
5.	Do you think that prices of milk have fallen down	23(19.17%)	97(80.83%)	0.191

* Figures in parenthesis: Percentage of respondents

CONCLUSION

Small and marginal farm holders are highly vulnerable to crisis due to their limited access to resources and credit. Farmers also constantly battle against erratic rainfall, crop failures, increasing input costs and price fluctuations for their produce. Now, COVID-19 poses serious threats on livelihood of farmers and there is a need to follow the general guidelines for safety of person and supporting the needy persons during the distress situations. In order to avoid the post-harvest losses, value addition of fruits and vegetables has to be encouraged. Farm mechanization need to be adopted by the farmers to avoid the labour unavailability. Farmers should be encouraged and motivated towards collective farming or Farmer Producer Organizations for carrying out farming in a profitable way.

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