



Constraints Analysis during COVID-19 Lockdown and Rehabilitation Measures for Farmers

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ABSTRACT

Agriculture and allied sector are the largest source of livelihood in India. About 120 million small holder farmers play crucial role in the food chain of country. The novel Corona virus 2019 currently designated as COVID -19 and its spread across the country threatened all the sectors of development in India. The small and marginal farmers were most affected by the series of lockdown imposed by the governments in lieu of containing the COVID-19 spread since 23rd March 2020. The research has been conducted to prioritize constrains faced by the farmers of Ariyalur District of Tamilnadu and to suggest suitable rehabilitation measures to ensure the well being of the farmers. The study was conducted in two villages each in six blocks of district and ten farmers in a village were randomly selected to arrive at 120 respondents for the study. The survey was conducted using well designed questionnaire and information were collected over phone calls. The data collected were analyzed using statistical tools like frequency and percentage to rank the constraints faced by the farmers. Difficulties on getting farm input and animal feed, lack of outside merchants for procuring the farm produces, lack of technical experts to solve the field problems on time, unawareness about Government schemes were the major impediments as expressed by 93.33, 81.66, 80.83 and 74.16 per cent of the respondents, respectively. The rehabilitation measures like hike of PM Kisan Samman Nidhi, facilitation of free flow of credits and subsidies, restructuring of marketing mechanisms including fixing up of MSP were suggested.

Key Words : Covid-19 pandemic, Lockdown, Constraint analysis, Rehabilitation, Credits and subsidies and MSP.

INTRODUCTION

Agriculture and its allied sector like animal husbandry, fisheries etc., are the largest source of livelihood in India. About 70 percent of rural household still depend directly on agriculture for the livelihood. India is home to about 120 million smallholder farmers are the crucial part of the food value chain in the country as well as an important element of the global food system. The COVID-19 pandemic has brought new risks that threaten livelihood of small farm holders and food security of the nation. De *et al* (2005) opined that India has been traditionally vulnerable to natural disaster due to its unique geo-climatic conditions, floods, droughts, cyclones, earthquakes and landslides have been recurrent phenomena in India.

The novel corona virus 2019 currently designated as COVID 2019 was in the limelight since the beginning of New Year 2020. Though human corona viruses have been recognised for many years but COVID 2019 was a new strain and its wide global spread sparked panic among the common public. To control the spread of COVID 19, various countries had announced lockdown for particular period. India is one of the countries with high population density has also announced the lockdown at the end of March, 2020. This lockdown period has various restrictions like complete closure of all shops except essential services like health care and imposed the public to stay at home. The agriculture sector had a big hit by this lockdown especially in rural villages and handling perishable commodities.

Table.1. Major crops cultivated during lockdown period at Ariyalur District

Sr.No.	Crop	Area (ha)	Stage
Field Crops			
1	Paddy	18,350	Harvest
2	Groundnut	23,680	Harvest
3	Sesame	875	Flowering
Horticultural Crops			
4	Cashewnut	28764	Harvest
5	Watermelon	184	Harvest
6	Mushkmelon	25	Harvest
7	Brinjal	366	Harvest
8	Chilles	112	Flowering & Harvest
9	Bhendi	325	Flowering & Harvest
10	Tuberose	96	Flowering
11	Marigold	121	Flowering

Harvesting and marketing of crops was in crisis in the whole country due to the shortage of labour force to harvest the *rabi* crops, lack of movement of private traders, disruption in the procurement of produces by Government agencies, limited operations of regulated markets and restriction imposed on vehicle movement in the first spell of lockdown during 24.03.2020 to 31.04.2020. Later on both union and state Government announced some relaxations related to agricultural operations ensured the breathing of farmers.

Ariyalur District of TamilNadu lies in the North Eastern part of TamilNadu with the net cropped area of 1.11 lakh ha by 3.5 lakh farmers. The major crops grown here are maize, groundnut, paddy, sugarcane, cashewnut, drumstick and vegetables during *rabi* and cotton, maize, pulses, paddy and groundnut during *kharif*. Krishi Vigyan Kendras in respective districts played vital role in helping farmers during this lockdown period. Even though the farmers faced huge troubles and the constraints faced by the farmers of Ariyalur district during the lockdown periods were studied by ICAR Krishi Vigyan Kendra, Ariyalur district, TamilNadu with the idea to suggest suitable policy measures to rehabilitate the farmers.

MATERIALS AND METHODS

The present study was carried out in all the six blocks of Ariyalur district of TamilNadu as each block has its own uniqueness in terms crops grown. A simple random sampling technique was employed in this study and was assumed that the characteristics of the sample approximate the characteristics of the total population (Leedy and Ormrod, 2005). Random sampling approach was taken due to its ability in providing much information on given sample size (Bryman and Bell, 2003). The data on area under different crops were converted from concerned departments at district level. A simple random sampling technique was applied to select twelve villages from the six blocks of Ariyalur District. Ten farmers from each village were selected randomly. Therefore, a total of one hundred twenty (120) farmers were selected purposively as the respondents of this study. Perceived constraints faced by farmers and the needs of the farmers during COVID 19 lockdown were studied. The constraint in the present study was operationalized as any condition or factor, which might hinder or restrict the use of it. The data were collected by using a well-structured interview schedule and the respondents were contacted over phone to collect the data. The data collected were

Constraints Analysis during COVID-19 Lockdown

Table 2. Constraints faced by farmers during COVID 19 lockdown(n=120)

Sr. No.	Constraint	Frequency	Percentage	Rank
1	Difficulties in getting farm inputs, animal feed and vaccines	112	93.33	I
2	Lack of outside Merchants for procuring of products	98	81.66	II
3	Lack of technical experts to solve the problem in time	97	80.83	III
4	Unawareness about Government Schemes during lockdown	89	74.16	IV
5	Unavailability of cold storage facilities for perishable products	82	68.33	V
6	Difficulties in mobilization of certain farm machineries during harvest	81	67.50	VI
7	Difficulties to get vehicles for transportation of products	76	63.33	VII
8	Exploitation by local middle man in price fixation of farm produce	75	62.50	VIII
9	Difficulty in getting e-pass for marketing of fresh products	74	61.66	IX
10	Missing of timely artificial insemination in dairy cattle	69	57.50	X
11	Low level functioning of Direct Procurement Centres	54	45.00	XI
12	Non – availability of essential animal husbandry services in containment zone	52	43.33	XII
13	Electricity fluctuation during lockdown	44	36.66	XIII
14	Unavailability of credit facility from bank	36	30.00	XIV
15	Shortage of labours during critical stages of crops	34	28.33	XV

coded, compiled and analyzed using frequency, percentage and rank.

RESULTS AND DISCUSSION

The crops for which sowing taken up during November to December 2019 and harvested during March to April,2020 is furnished in Table1.

It could be seen (Table 1) that the non-perishable crops like paddy, groundnut, sesame, cashewnut occupies the major area. The perishable crops like watermelon, muskmelon, brinjal, bhendi, tuberose and marigold were also cultivated in sizeable area. Almost all the crops attained harvesting stage when the first lockdown announced during 23rd March, 2020. The farmers have faced serious troubles in harvesting the produce like groundnut, paddy due to the lack of movement of harvesting machineries and labour force to accomplish the tasks in a larger area. Though the entire market channel for perishables like watermelon, muskmelon, brinjal and okra disrupted earlier in the sequence of lockdown,

later State Government have facilitated to market the vegetables directly to the consumers at home to avoid overcrowding in the markets. It was very pathetic to narrate that the tuberose and marigold growers stopped harvest of flowers to ‘stop loss’ as it has got absolutely no market. Apart from agriculture, the animal husbandry activities were also affected greatly during the lockdown period.

The data indicated that the majority of the respondents (93.33 %) reported the difficulty in getting farm inputs, animal feed and vaccines. Since, most of feed manufacturing companies, fertilizer shop and agri input shops are closed during lockdown; there was severe shortage of feed (in-case of poultry, fish and dairy cattle) and agri inputs (seeds, fertilizers, pesticides). Further, lack of transportation facilities and delay in arrival of vaccines and essential medicines led to death of many livestock especially poultry birds by Raniket disease and goats by enterotoxemia.

Secondly, 81.66 per cent of respondents faced problems due to lack of outside merchants for purchasing their products. Marketing of farm products to outside market is the major income for local farmers especially for groundnut, paddy, watermelon and muskmelon. Since, lack of transportation facilities and competition among merchants for procurement of farm produce, the farmer faced serious problem in selling the products and prices were also very less due to the presence of only limited merchants.

Thirdly, most of the farmers (80.83 %) faced lack of technical experts to solve the field problems in the critical time like pest infestation, disease outbreak, nutritional deficiency, soil problems, water shortage as most of the agricultural and animal husbandry resource department like state agriculture, Horticulture, animal husbandry departments and KVKs were closed initially during first phase of lockdown. Though some relaxation was given in agricultural sector during second phase of lockdown, most of the advisories were given by mass communication modes like radio and television and ICT tools like whatsapp, facebook and mobile phones but the gross root level reach of these advices to the farmers was still questionable. Similarly, 74.16 per cent of the farmers reported lack of awareness about central and state government schemes due to lack of extension agency contact.

Since, the major crops in the study area are fruits, vegetables and greens, lack of proper cold storage facilities ranked as fifth problem as reported by 68.33 per cent of respondents. Similarly, lack of transportation facility in mobilization of huge harvester machineries and transportation of farm produce add a major impact of 67.50 and 63.33 percent, respectively among the respondents. Difficulties in getting e-pass for marketing of fresh products (61.66%) and unavailability of credit facilities from bank (30.00%) were the other potential constraints.

Lack of timely artificial insemination of dairy cattle due to shortage of semen straws led to

postponement of pregnancy and milk production in dairy cattle. Inaccessibility of animals for treatment or transportation of animals to hospitals in containment zone poses building up of ailments in cattle and poultry birds.

Among the fifteen prioritized problems labour shortage found 15th place or it was the least problem at Ariyalur District. This might be due to the less awareness among the village people about the corona virus spread and its consequences. However this enabled the sustained income of agriculture wage workers. It was in contrary to the statement of Khan *et al* (2020) as they reported the non-availability of labours for rabi wheat crop harvesting at Punjab due to COVID-19 lockdown. Though the centralized package announced to Indian farmers as a response to Covid-19 lockdown, this paper tried to suggest the rescue and rehabilitation measures with special reference to Ariyalur district farmers.

PM-KISAN may be increased from Rs.6,000 per year to Rs. 12,000 by considering the loss incurred by the farmers due to lockdown. This may be extended to tenant farmers also as they constitute 20 percent of farmers at Ariyalur district.

Though the moratorium to agri loans extended, the burden of debts increased to the farmers as the banks levies interest for availing moratorium. Hence, the interest for this six month period may be waived off.

Though the Government announces the credit facilities to farm sector, it is very difficult to avail the loans by the small/marginal farmers even for their Kisan Credit Cards (KCC). Hence, the bankers must be immediately sensitized in order to understand the situation of farmers and to extent loan facilities.

Minimum Support Prices (MSP) should be raised more than two times of cost of production for the crops like paddy, groundnut and also for cashewnut in order to compensate the losses incurred by the farmers in their previous crops.

Full functioning of regulated markets and

Constraints Analysis during COVID-19 Lockdown

mandis should be ensured to sell the products like groundnut, cotton, sesame, cashewnut and Direct Procurement Centres for paddy by inviting outside merchants and Government agencies like cotton Corporation of India.

The existing FPOs may be sanctioned with the subsidy linked credit schemes through NABARD or other Nationalized Banks to start or strengthen their business activities that would facilitate reduction in input cost and increase in produce cost to the FPO members and non-members.

As the virus spread progresses, the only viable option to the extension agents is technology delivery through the mobile based communication tools in the near future if the virus problem continues. Hence, a village level link worker may be identified, provided with a smart phone and linking them with extension officials in the district like KVK scientists, Department officials will support the illiterate farmers. The link workers may be paid with honorarium.

The workers under MGNREGS may be diverted to do farming operation in the farmers' field in such a way to share the wages by farmer and MGNREGS at 50:50 bases to reduce the burden of farmers.

The Government schemes like New Entrepreneur cum Enterprise Development Scheme (NEEDS), Prime Ministers' Employment Generation Programme (PMEGP), Start up India, Dairy Entrepreneurship Development Scheme (DEEDS) etc. are the unreached fruits to Ariyalur District farmers and upcoming entrepreneurs. Hence, the wider publicity is needed on those schemes and the formalities should be simplified as our farmers are facing severe constraints to avail these schemes.

CONCLUSION

Small holder farmers are highly vulnerable to crisis due to their limited access to resources, credit and technological back up. 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. Hence, we will need to be innovative in our thinking and ensure that our efforts to rebuild are matching to the needs of small and marginal farmers. The lockdown induced debts and cash flow constraints of farmers to be taken care of by extending subsidy linked credit facilities on time to avoid further borrowing from informal sector at higher rates of interest for commencing *kharif* cropping.

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