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DEPARTMENT OF AGRICULTURAL EXTENSION

SEMINAR REPORT -1

FOOD AND ECONOMIC SECURITY OF FARMERS UNDER COVID -19

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CONTENTS

Sl. No.	Title	Page Number
1	Introduction	1
2	Objectives	2
3	Brief history of COVID 19	2-3
4	Major impact of covid-19 on agriculture and allied sectors	3-12
8	Positive effects of COVID 19	13
9	Policy initiatives	14-16
10	Research studies	17-21
11	Conclusion and References	22
12	Discussion	23
13	Synopsis	24-25
14	Presentation slides	26-57

FOOD AND ECONOMIC SECURITY OF FARMERS UNDER COVID -19

India is a land of billion of people, millions of habits, lakhs of cultures and thousands of language, but invisible novel corona virus did not differentiated anyone and created havoc in the entire world.

The COVID-19 pandemic has been considered as the most crucial global health calamity of the century and the greatest challenge that the human kind faced since the 2nd World War. The whole world is in turmoil because of the impact of COVID-19. It has spread to 213 countries across the globe and adversely affected their economies. India is one of the most severely affected nations by this pandemic. Its impact can be noticed on all the sectors of the economy, including agriculture. Indian economy is primarily considered as an agrarian economy as 43.21% of the work force is involved in agriculture (World Bank, 2019). Hence it is important to have an overall understanding of the impact of COVID-19 on Indian agriculture and what measures have been taken by our government and civic organizations in order to manage this extra-ordinary situation so that we can identify the problem areas and take appropriate measures. We can also learn lessons from a number of successful interventions which are helping farmers and agricultural labourers.

Agriculture is the backbone and lifeline of the country and it continues to be prominent sector for the Indian economy as it is the primary source of livelihood for over 58 % of the nation's population and generates employment for 44 % of the workforce. The sector contributes approximately 17.2 % to India's GDP and witnessed a steady CAGR of 2.1 % between 2014 and 2018. During the same period, the value of agriculture and allied activities rose to INR 27.56 lakh crore in FY2019 from INR 20.93 lakh crore in FY-2015.(FICCI ,2020)

At this juncture, the novel corona virus made havoc all over the world and India is not an exceptional. The Indian economy has adversely affected by this virus which creates a panic and India faced 4 lockdown since the inception of COVID-19 and Indian economy virtually collapsed and agriculture became victim of this virus. Impact of the lockdown on the Indian agriculture sector has been complex and varied across diverse segments that constitute the agricultural value chain. Several activities across agricultural value chain have been the most hit. Acute shortage of labour, reverse migration, harvest, transportation and logistics and exports were some of the unforeseen

challenges that the stakeholders across the value chain witnessed. With this background the following objectives were framed for the seminar:

1. To know the alterations of farmers food and economic security under Covid 19
2. To discuss government interventions on food and economic security during Covid 19
3. To review research and case studies related to agriculture during Covid 19

BRIEF HISTORY OF COVID 19

Coronaviruses are a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). A novel coronavirus (COVID-19) was identified in 2019 in Wuhan, China. COVID-19 is a disease caused by a new strain of coronavirus. 'CO' stands for corona, 'VI' for virus, and 'D' for disease. Formerly, this disease was referred to as '2019 novel coronavirus' or '2019-nCoV'

The most common symptoms of COVID-19 are fever, dry cough, and tiredness. Other symptoms that are less common and may affect some patients include loss of taste or smell, aches and pains, headache, sore throat, nasal congestion, red eyes, diarrhoea, or a skin rash.

Lockdown in India

Nation-wide lockdown (68 Days ~ 2 months)	Phase 1 (25 March- 14 April) 21 Days	Phase 2 (15 April- 3 May) 19 days	Phase 3 (4 may- 17 May) 14 Days	Phase 4 (18 May- 31 May)14 Days	
Activities Permitted	Freight (Goods) operations of railway, transport of essential goods, Agriculture activities, fire, police and emergency services, food shops, banks, ATMs, petrol pumps, other essential and their manufacturing.				
Unlock (148 Days)	Unlock 1 (1 June- 30 June) 30 Days	Unlock 2 (1 July-31 July) 30 Days	Unlock 3 (1 August- 31 August) 31 Days	Unlock 4 (1 Sept- 30 Sept.) 30 days	Unlock 5 (1 Oct- 31 Oct) 27 Days

Activities not allowed by Govt. of India/ state Governments	Railway, Educational Institutions, Cinema halls, Public gatherings etc.	Non-essential Movement, Inter/Intra-district Buses with 50% capacity, Gymnasium	Limited international travel, recreational activities, metros, Yoga centers	Lockdown in Containment Zone only	Cinema halls till 15 October, Schools to be opened in graded
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Food Security and Economic security:

Food security is a measure of the availability of food and individuals' ability to access it. Affordability is only one factor. At the 1974 World Food Conference the term "food security" was defined with an emphasis on supply. They said food security is the "availability at all times of adequate, nourishing, diverse, balanced and moderate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices". The final report of the 1996 World Food Summit states that food security "exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life

The WHO states that there are three pillars that determine food security: food availability, food access, and food use and misuse. In 2009, the World Summit on Food Security stated that the "four pillars of food security are availability, access, utilization, and stability"

Economic security is composed of basic social security, defined by access to basic needs infrastructure pertaining to health, education, dwelling, information, and social protection, as well as work-related security.

MAJOR IMPACT OF COVID-19 ON AGRICULTURE

- ☐ Crop harvesting
- ☐ Supply chain disruptions
- ☐ Labour Shortage
- ☐ Food Security
- ☐ Commodity arrival and prices

Agriculture is the backbone and lifeline of the country. More than 65% of the total populations are involved in the agriculture sector either directly and indirectly. Now an estimated 50 million migrants labours are expected to have returned to their native place from cities following the nationwide lockdown. It had a great impact on the economy, the environment and any human activities like livestock, agriculture, health, etc. Lockdown has impacted the supply chain of agricultural commodities by taking a toll on the loading and unloading of agricultural produce, this cause the produce remain to lie on the field. This leaves the crest fallen farmer with no alternative other than feeding the fresh produce to cattle. Various agricultural practices are affected during lockdown periods. There are some of the agriculture sectors like Dairy, fishery, poultry, vegetables and horticulture sector. The produce of this sector are mainly perishable in nature so, they could not be stored for longer time. Due to this farmers compelled to sell their produce at a very low price. Inspite of the curtail of transportation logistics of agriculture goods are free to send their produce from agriculture field to mandi

IMPACT OF COVID-19 ON FOOD GRAINS

WHEAT

Wheat is largely grown in Punjab, Haryana, Madhya Pradesh, Uttar Pradesh and Rajasthan in the Rabi season. Yield from Punjab and Haryana constitutes 70% of the total central wheat . Despite bumper wheat crop, delayed harvesting and increased labour costs, with ill effects of adverse weather, led to low realisations by farmers.

Impact

- State governments allowed entry of only 100 tractor trolleys a day in each mandi, slowing the pace of procurement.
- These restrictions, coupled with scarce labour at mandi, led farmers to make multiple visits, which in turn increased their expenses.

Recommendations

- Government should increase capacities of modern steel silo storage through private investment especially in Punjab and Haryana.
- According to the Abhijit Sen Committee's recommendations in 2002, MSP should become a floor price and be strictly based of C2 cost.

RICE

India is the world's second-largest grower of rice and is estimated to have produced a record 117.5 million tonnes of the grain in 2020-21. India exports about 11 million tonnes of rice each year.²² Punjab and Haryana contribute almost 15% to India's entire rice production. This year, Telangana reported a paddy cultivation of almost 4 million acres, translating into a yield of 10 million tonnes of rice. Despite global lockdown, the demand for rice continued to rise. Moreover, the domestic as well as global markets had peaked just before weeks the lockdown was announced. Due to the lockdown, trade had come to a standstill. Even though milling was being exempted under essential services Rice production in India is all set to be to the tune of 117 million tonnes for 2020-21.

Impact

- With gradual improvement in logistics and labour, companies continue to struggle at ground level.
- Companies are facing shortage of packaging material

Recommendations

- Ensure uninterrupted exports of rice to avoid risks of other countries capturing India's market.
- On ground improvement of logistics must be ensured for uninterrupted domestic and international supply.

MAIZE

Bihar and Madhya Pradesh account for the highest production of maize in India. The estimated annual production in Bihar is 35-40 LMT, followed by Madhya Pradesh at 28 -35 LMT. However, despite a bumper maize production, severe challenges continue to persist. Around 80% of maize production is consumed by the animal feed industry.

Impact

- As an impact of current crisis, the poultry and other livestock sector has reduced purchase of maize.
- Maize farmers have been challenged for the last 2 year due to invasive pest Fall armyworm (FAW). In the absence of suitable pest management, yield losses may be as high as 50%.
- With a bumper harvest this year and falling demand from poultry industry will lead to decline in maize price and farmers may not even recover the production costs.

Recommendations

- Poultry and livestock sectors should be revived to create a demand for maize.
- Until the government gives some form of stimulus and incentives to the farmers in the poultry industry to recover the capital lost during the crisis, it would be difficult for the industry to revive in short term.

SOYBEAN

- Soybean is an essential ingredient for livestock, including poultry, and aquaculture feed. With poultry sector operating at 30-35% of its capacity and aquaculture operating at 70% of its capacity, demand for soybean has dropped to almost less than 50%, during the lockdown.

Impact

- The ongoing crisis in the poultry and other livestock sectors has led to a drop in the demand for soybean as it is an essential ingredient in animal feed.
- Solvent companies are under tremendous pressure as there is decreased production of oil, due to lack of demand for the meal. Further, dependency on imports will result in negative outflow of reserves.

Recommendations

- Ensure uninterrupted supply of oilseeds to refineries, which already have cut down their operating capacities.
- Government should give some incentives or stimulus to revive the poultry sector. else it would be difficult for oilseed farmers and companies to sustain.

COMMERCIAL CROPS

SUGARCANE

- Transport and labour shortage is contributing to delays in the sale of sugarcane. Moreover, lack of proper storage facility is damaging the harvested crop, thus affecting farmers income.
- During the lockdown, delay in payments from sugar mills is resulting in farmers selling sugarcane produce to local traders at much lower prices.

JUTE

- As use of jute bags is mandatory for packing food grains, sugar, the demand for jute bags witnessed a rapid growth during the lockdown. However the supply was constrained due to labour shortage, transport, etc resulting in shortage of jute bags.

COTTON

- Cotton, which accounts for 29% of India's textile trade, is expected to get adversely impacted. Demand for cotton has drastically reduced over the past few months.
- Post relaxation, textile mills are operating at half of their capacity and overall demand for cotton and inventory levels remain subdued.

Impact

- Transport companies, which help sugarcane farmers with their produce from the farm to weighing docks and onwards to the mandis, are either absent or charging exorbitant prices.
- Solvent companies are under tremendous pressure as there is decreased production of oil, due to lack of demand for the meal. Further, dependency on imports will result in negative outflow of reserves.

Recommendations

- Ensure uninterrupted supply of oilseeds to refineries, which already have cut down their operating capacities.
- Government should give some incentives or stimulus to revive the poultry sector. Else, it would be difficult for oilseed farmers and companies to sustain.

HORTICULTURE

FRUITS AND VEGETABLES

Impact

- Perishable food items, such as fruits and vegetables, are severely affected due to the COVID-19 lockdown.
- Initial speculation with respect to the situation, resulted in hoarding of semi-perishable items such as potatoes and onions followed by sudden spike in demand, impacting retail prices.
- Pile up of harvested and unharvested perishables have caused farmers losses of INR 15,000 crore and this is estimated to swell to INR 40,000- 50,000 crore in the coming months

- Mango growers across the country are expected to lose close to INR 6000 crore this season.
- Farmers dealing in exotic vegetables, such as lettuce, broccoli and capsicum, have suffered as restaurants and hotels continue to be shut.
- Lack of cold storages facilities at the farm level is resulting in dumping of fresh produce.

Recommendations

- To ensure food supply chain is not disrupted, mandis in non-hotspot areas should be allowed to run smoothly after ensuring appropriate safety and hygiene measures.
- Green corridor and freight rails should be operated in line with market requirements, allowing smooth passage to fresh and vegetables with the country.
- Developing e-NAM into a platform to enable e-commerce and encouraging private participation.
- The Ministry of Civil Aviation should step in to ensure that airlines give a better air freight rate for exports.

FLORICULTURE

Impact

- The lockdown has severely impacted the demand for flowers, not just in India but also overseas. tonnes of locally grown flowers, such as roses, lilies and marigold, destined for decoration, events and temples are being dumped or destroyed by farmers.
- Due to absence of international demand and exports at a standstill, the INR 550 crore flower export business is expecting the industry to shrink by 50 per cent.
- Many small farmers, who cultivate flowers as a cash crop, have incurred significant losses in the peak season.

Recommendations

- Government should provide relief to the farmers with standing crops of flowers.
- State governments should expedite the payouts under subsidy for growing flowers in poly houses.
- Government should design sufficient incentive schemes to ensure continuity of the segment.

Poultry

- The industry had been affected in early February 2020 when rumours regarding the spread of virus by the consumption of meat and poultry started doing the rounds. The projected losses in this sector by the end of April 2020 were estimated at INR 27,000 crore.

- This also impacted 10 lakh broiler poultry farmers and 2 lakh layer farmers. The price realised by these farmers crashed to INR 10-25 per kg in March, while the cost of production was about INR 70-80 per kg.
- The price of eggs also fell from INR 3-4 per egg to INR 1-2 per egg at the farm gate level.

Impact

- Due to the low demand in poultry products, maize and soya farmers are in distress as the poultry sector provides direct benefit to more than three crore farmers. The prices of maize and soybean have significantly dropped.
- The poultry industry is unable to provide salaries to workers in the current situation. Farmers are unable to pay the labour engaged at the farms.

Recommendations

- There should be strict regulations against fake news and propaganda in the market impacting farmers and food processors.

FISHERIES/AQUACULTURE

- Fish, being a robust species, can survive on low food leading to farmers continuing fish farming. The fish industry is facing consumption challenges due to shut down of the HoReCa sector.
- Fish consumption has decreased by 40%, putting the price pressure on farmers. The average farm price of fish was INR 70-100, which is now estimated to have fallen below production cost to INR 50-55.40 Slowdown in global shrimp imports had put processors in a temporary phase of oversupply, as 98% of the shrimp production in India is exported.

Impact

- Due to the spread of corona virus many shrimp farmers have panic harvested which has resulted in lower production and processor buying shrimp at lower prices.
- There has been a shortage of cold storage facilities for shrimp farmers to freeze their surplus stock leading to wastage and cheap sales.
- Low availability of labour for hatcheries, farm input producers, processors and large farms affecting operational activities.

Recommendations

- Government intervention in the fishery/aquaculture sector to stabilize the price for fish at a minimum of INR 75-80, enabling farmers to reduce losses. This will also safeguard the interest of maize, soybean and oilseed farmers. Long-term recommendations
- The National Fisheries Development Board should help establish mega cold storage facilities at all major ports to store the fishes/ shrimps to better manage the country's export potential.

DAIRY

- Perishable food items, such as milk, have been severely affected due to COVID-19. Milk cannot be stored without proper processing thus leading to farmers selling milk at extremely low prices.
- Small players are not procuring usual quantities due to the low demand. However, dairy cooperatives, such as Amul, have been procuring more volumes of milk than before to support the farmer community leading to surplus milk in most states.
- Dairy farmers and plants have been converting milk into ghee, butter and other dairy products, which have a longer shelf life.

Impact.

- States, such as Maharashtra and Rajasthan, are unable to collect milk as processing capacity is over booked.
- Farmers are finding it difficult to maintain their cattle as cattle feed is hard to procure and prices have shot up by 40%.
- Private plants, which are mainly involved in the production of value-added dairy products, are witnessing major liquidity crisis.

Recommendations

- Manufacturers and suppliers of dairy equipment should ensure backup service during such crisis so at least the spare parts and service are available to avoid downtime in production.
- Government should start purchasing milk powder and butter at remunerative prices and distribute it further under mid-day meals and other schemes.
- Companies should start maintaining more inventory as the demand post lockdown is expected to be greater than supply.

AGRICULTURE INPUTS

Seed industry

- The seed industry witnessed 15-20% drop in sales during the lockdown.
- Thirty per cent of the cotton and maize hybrid seed replacement market is lost for the Kharif season.
- The nationwide lockdown can have severe implications on farmers as they prepare their fields for the upcoming Kharif season:
- Social distancing and limited logistics have constrained the execution of contracts with small and marginal farmers who grow specific hybrid seeds
- Factories are facing severe shortage of workers

Impacts

- Lockdown restrictions impacted the movement of seeds from production fields to factories. In case of maize, the delay in transporting corn, cob led to considerable drop in quality and is likely to have an adverse impact on the quality of hybrid maize seed.
- Hybrid cotton seed movement to north Indian markets that usually start in April is delayed. this is likely to threaten the cotton acreages in Punjab, Haryana and Rajasthan.
- Limitations on movement of sales and marketing teams are impacting both sales and collections of receivables.

Recommendations

- Empowering FPOs to play a larger role can solve many issues as they play a crucial role in acting as an aggregator of farm seeds to be processed further and buy in bulk directly from the manufacturer. this can also help with local mobility ensuring social distancing
- Most of the seed is produced in India, except for some vegetable seeds (cabbage, cauliflower and cucurbits), which come from temperate countries. Thus, India has the potential to be developed as a major seed export hub.
- Incentivise companies to further invest in research and development of more resilient and efficient seed varieties.

FERTILISER

- Shortage of packaging bags at the plant is affecting the movement of fertilizers, leading to pile up at the storage silos.

- Given the low-income levels and cash crunch, farmers will be price sensitive to use specialty fertilizer, which may lead to reduced yield and low-quality produce.

Recommendations

- Government could facilitate release of payments owed to fertilizer companies under the subsidy policy.
- Government could facilitate cheaper working capital loans especially for the MSME.
- Companies may consider increasing the silos capacity (specially designed industrial storage).
- To ensure subsidies reach directly to the beneficiaries, government may consider strengthening PM KISAN and all input costs be calculated on the basis of per hectare (increase from the current INR 6000).
- Farmers can be given DBT(direct benefit transfer) just before it is required to procure necessary agri-inputs. This will ensure that all inputs will be sold at reasonable cost by the manufacturers and suppliers and will bring back normal commercial and economic operations faster.

MICRO-IRRIGATION

- The first quarter from April to June is the peak season for the irrigation sector.
- The sector is heavily dependent on PMKSY. In the absence of an annual action plan of PMKSY, there is uncertainty and the industry is expected to shrink by 50% in the short term.

Impact

- Despite the relaxations offered by the government for the sector, most of the companies were unable to start production during the lockdown. The remaining companies were operating at 50-70% capacity due to shortage of labour.
- Low attendance at government offices delayed the release of work orders/approvals for subsidies and disbursements.

Recommendations

- Release of state-wise allocation of Annual Action Plan (AAP) for FY 2020-21 and first installment for the AAP for FY 2020-21. Given the critical need of farmers for Kharif sowing, the state-wise allocation of the budget and release of first installment may be prioritized to enable the states to provide the benefits to farmers without any further delay.
- The process of subsidy can be digitalized and strengthened for swift processing of payment files, releasing work orders and an absolute time-bound process for approval and disbursement of funds.

POSITIVE IMPACTS OF COVID-19

Procurement under MSP of wheat during the rabi marketing season (2020-21) till June 12 has been 37.7 million MT (up 11% from 33.9 million MT) compared to 2019-20.

- Procurement of pulses is also higher than last year benefiting over 8.7 lakh farmers.
- The current kharif season has also registered 13% increase in crop sown area as compared to previous year.
- Crime incidents have become rarer crime rates in Delhi and Gurugram have plummeted in the last one month after the COVID-19 fear almost paralyzed the cities.
- Delhi police have registered only 2,000 cases including petty theft, robbery and automobile theft since March 15, 2020. It represents a sharp 42% drop in crime rates in the capital of India. The drop in crime rates correspond to the reduction in the percentage of vehicle thefts, which has given some mental peace to owners of personal and commercial vehicles some mental peace in these tumultuous times
- The air is cleaner and the environment is greener Greenhouse gas emissions and pollution levels across the country have fallen significantly. Half a year ago Delhi was gasping for a breath of fresh air saw “positively alpine” air quality a couple of days ago.
- Boosting localism
- Wildlife is rejuvenating
- Helped us to build genuine relationships
- Entire lifestyle changes to practice better hygiene
- Innovations to stay connected & help each other
- A new wave of tools & software
- Education becomes digitized & affordable

INDIAN GOVERNMENT’S SUPPORT TO AGRICULTURE DURING COVID-19

The central government has been proactive in implementing strict measures to curtail the nationwide spread of coronavirus. It has also ensured financial support through fiscal stimulus and key sector reforms to protect lives and livelihoods in India. The agriculture sector has featured prominently in the economy revival strategy of the government.

On 26 March, the government had announced an economic stimulus package worth INR 1,70,000 crore. The stimulus aimed to help millions of low-income households cope with the 21-day lockdown. As per the details of the package, 15% of the funds will be deployed towards the agriculture sector

- As India continues to deal with the ongoing crisis, Prime Minister Narendra Modi had unveiled a broad outlay for a comprehensive package of INR 20,00,000 crore under the Atmanirbhar Bharat Abhiyan campaign to build a resilient India.
- The action plan included detailed breakup of the INR 20,00,000 crore economic package under PM's Atmanirbhar Bharat Abhiyan, an initiative for bold reforms for a vibrant India.
- Benefits were given to the farmers under the PM-KISAN scheme with a transfer of INR 2,000 each into their bank accounts. INR 17,986 crore has been transferred to the beneficiaries since 24 March 2020. Furthermore, installment due for the period 1 April to 31 July 2020 has been paid to 8.13 crore beneficiaries within the first two weeks for April.
- The PM Fasal Bima Yojana has been made voluntary for all farmers on their request, but there has been no change in farmers' share of premium. Consequently, the government will bear 90% of premium subsidy liability for the North Eastern states, in place of the 50% subsidy given earlier.
- The Reserve Bank of India (RBI) has granted a moratorium on agricultural term and crop loans for a period of 3 months (till 31 May 2020), with a 3% concession on the interest rate of crop loans, up to INR 3,00,000, for borrowers with a good repayment record.

SUPPORT FOR AGRICULTURE

- Payment of INR 6,400 crore released under PM Fasal Bima Yojana.
- Agriculture Minister launches All India Agri Transport Call Centre numbers 18001804200 and 14488 to facilitate inter-state movement of perishables during lockdown.

SUPPORT FOR ANIMAL HUSBANDRY

- 560 lakh litre per day (LLPD) milk bought by co-operatives to overcome reduced demand
- Additional 111 crore litre milk procured, with payments of INR 4,100 crore
- New scheme to provide interest subvention at 2% per annum to dairy co-operatives in 2020-21.

PRADHAN MANTRI MATSYA SAMPADA YOJANA

- INR 20,000 crore allocated for fishermen to support integrated, sustainable, and inclusive development of marine and inland fisheries
- INR 11,000 crore for activities in marine, inland fisheries and aquaculture and INR 9,000 crore for building infrastructure such as fishing harbours, cold chains and markets

Beekeeping infrastructure development

- INR 500-crore scheme to develop infrastructure
- Funds to be used by beekeeping development centers for collection, marketing and storage Aims to increase income of two lakh beekeepers with special thrust on capacity building of women.

OPERATION GREEN – TOP

- Additional INR 500 crore earmarked for supply chain disrupted by lockdown
- 50% subsidy to be given on transportation from surplus to deficit markets
- 50% subsidy to be given on storage, including cold storage,

ECA & AGRI. MARKETING REFORM

Essential Commodities Act - The Essential Commodities Act (1955) to be amended to enable better price realisation for farmers by attracting investments and make the agriculture sector competitive.

EXTENSION ACTIVITIES IN COVID-19

- KVK ,SAUs, ICAR institutes, NGOs and FPOs across the country are actively engaged in providing crop specific, location specific agro-advisory services during this pandemic.
- ICAR has published an e-book which throws light upon the innovative approaches taken by different KVKs to provide useful advisory services to farmers.
- Information and Communication Technology (ICT) effectively to reach farmers
- Collaboration of KVKs and FPOs for helping farmers more efficiently assisting to create alternate supply chains wherever necessary

- KVKs can inspire Self Help Groups to help common people creating jobs in and around agriculture through secondary agriculture activities to provide employment to migrant workers.

AGRIWAR UNIT:

The „Agri War“ unit of the University of Agricultural Sciences (UAS), Bengaluru, sold 10 quintals of grapes and 1 tonne of butter fruit on Monday, with farmers requesting that the system be continued even after the lockdown. The university officials said Ravi, a grape cultivator from Devanahalli taluk, and Girish Kumar, a butter fruit grower from Kodagu, saw their produce get sold out at the Gandhi Krishi Vignana Kendra (GKVK), Sahakaranagar, Judicial Layout-Jakkur and Hebbal. the 10 „Agri War“ unit and the 10 coordination committees set up at district level have sold 12 tonnes of mango, 25 tonnes of watermelon, 10 tonnes of musk melon, 200 tonnes of grapes, 12 tonnes pineapple, 12 tonnes banana and tonnes of vegetables.



UAS (B) facilitating marketing of Fruits and Vegetables under Agri-war unit

RESEARCH STUDIES

Research study 1 : Impact of COVID-19 on Agriculture and Allied Sector

A.K. Singh (2020)

Table -1 Effect on Livestock Sector

n=1748

S. No.	Statements	Responses	
		Yes	No
1	Do you feel that farmers are facing problem in selling of milk in the district?	1065 (60.9%)	683 (39.1%)
2	Do you think that the prices of milk have fallen down in the villages?	803 (45.9%)	945 (54.1%)
3	Do you feel that there is an interrupted supply of feed and concentrate for animals?	1272 (72.8%)	476 (27.2%)
4	Do you think that Veterinarians are serving uninterruptedly for the farmers?	1229 (70.3%)	519 (29.7%)
5	Do you feel that Government has allowed farmers to sell their products with curfew passes is a good initiative?	1670 (95.5%)	78 (4.5%)
6	Do you feel that appropriate advisories provided by KVK experts through different social media are effective?	1719 (98.3%)	29 (1.7%)

This is national level study formulated to see the impact of COVID-19 on agriculture and allied sectors. Heads and SMSs of KVKs from 11 ATARIs were selected as respondents (1748). During the study it observed that in livestock sector, surplus production of milk and marketing, feed and concentrate availability were major affected areas along with government initiative for marketing with curfew passes considered as major factors. It was found that majority of respondents (60%) were agreed that the farmers had faced problems in selling the milk to their customers in town and cities. While the feed and concentrates are important factors for milch animals, majority of respondents (72%) were reported that feed and concentrate (mean=0.727) were not available for animals because of interrupted supply to the users. The advisory issued by the Krishi Vigyan Kendras (KVKs) through different social media (mean=0.983) in different thematic areas were found reliable and appropriate for farming community (98%).

Table -2 Effect of COVID-19 on labourers in Agriculture and Allied Enterprises

		n=1748	
S. No.	Statements	Responses	
		Yes	No
1.	Do you feel that daily landless wage workers affected most due to coronavirus infection?	1542 (88.2%)	206 (11.8%)
2.	Do you feel that Procurement operations have been affected due to labour shortage for loading, unloading of produce?	1526 (87.3%)	222 (12.7%)
3.	Do you feel that despite of work, some workers want to stay home and waiting for Government welfare schemes?	1198 (68.5%)	550 (31.5%)
4.	Do you think that migratory workers will start his/her enterprise in their area according to their skill/expertise?	1143 (65.4%)	605 (34.6%)
5.	Do you feel that financial assurance through MGNREGA, PM Jan Dhan Yojna and Kisan Samman Nidhi (KISAN) Yojna has helped the farmers?	1654 (94.6%)	94 (5.4%)
6.	Do you feel that labourers can work in the field on the slogan of <i>Do Gajki Doori</i> (distancing by 2 feet) and by practicing hygiene practices?	1539 (88%)	209 (12%)

This is national level study formulated to see the impact of COVID-19 on agriculture and allied sectors. Heads and SMSs of KVKs from 11 ATARIs were selected as respondents (1748). The impact of coronavirus was studied on labourers in agriculture and allied enterprises and it was observed that majority of respondents (88%) were agreed that daily wage and landless wage workers were affected (mean=0.882) most in terms of employment due to coronavirus infection. the labour unavailability has affected the procurement operation (mean=0.872) due to labour shortage for loading, unloading of produce in the market as agreed by majority of respondents (87%). Under the PM-KISAN Yojana 6.93 crore farmers were benefited over the Covid-19 crisis.

Table -3 Effect on Horticulture Sector**n =1,748**

S. No.	Statements	Responses		Mean	Std. deviation
		Yes	No		
1.	Do you feel that the harvesting of major fruit crops has been affected in the district?	1136 (65%)	612 (35%)	0.649	0.477
2.	Do you think that due to restricted opening of shops the supply of critical inputs can be assured for farmers?	1223 (70%)	525 (30%)	0.699	0.458
3.	Do you feel that the sale and transportation of ornamental flowers and seedling/saplings from nurseries have been severely affected?	1584 (90.6%)	164 (9.4%)	0.906	0.291
4.	Do you feel that as an alternative mechanism for marketing such as door to door supply has empowered group of farmers?	1449 (82.9%)	299 (17.1%)	0.828	0.376
5.	Are you satisfied with the joint efforts of KVKs with FPOs/FPCs/SHGs to solve the horticulture-related problems to a greater extent in the area?	1615 (92.4%)	133 (7.6%)	0.923	0.265
6.	Do you feel that relaxation is given by Govt. has helped the farmers, traders, vendors, etc. in meeting the demand and supply of horticultural commodities up to a certain extent?	1647 (94.2%)	101 (5.8%)	0.942	0.233

This is national level study formulated to see the impact of COVID-19 on agriculture and allied sectors ,Heads and SMSs of KVKs from 11 ATARIs were selected as respondents (1748). The impact of coronavirus was observed on horticulture sector and it was found that majority of respondents (65%) were agreed that harvesting of major fruits and vegetable crops have been affected (mean=0.649) in many districts. The majority of respondents (90%) agreed that transport and sale of many ornamental flowers and different seedling/saplings severely affected (mean=0.906) due to many reasons. Majority of respondents (94%) were agreed with the fact that, Krishi Vigyan Kendras (KVKs) have been facilitated in the formation of many group based farming models such as FPOs/FPCs/SHGs for empowering the farmers proved to be an important initiative (mean=0.923) for effective and appropriate problem solving mechanism for farmers in marketing of horticultural produce

Research study 2 : Food system disruption: initial livelihood and dietary effects of COVID-19 on vegetable producers in India

n=448

Table - 1 : Overall effect of COVID-19 on Vegetables Harvesting

		Andhra Pradesh	Assam	Jharkhand	Karnataka	Total
Observations	n	29	163	200	56	448
Farm size	ha	2.89	1.48	0.80	2.77	1.43
Veg. production disrupted	%	76	77	94	100	87
Unable to sell part of veg. Harvest	%	83	75	76	100	79

The study used a phone-based survey method to elicit information about how vegetable farmers in four Indian states were affected by the lockdown. Phone-based interviews were necessary because it was not possible to visit farmers in person. 448 respondents were selected from 4 different states and based on the data collected from them, more than 75% of respondents quoted that their vegetable production is disrupted and more than 80% of the respondents faced problem of marketing of the harvested vegetable due to restriction on transport.

Table - 2 :Overall impact of Covid 19 on sales ,price and farm income

Particulars	Results (%)
Farms reported some declines in sales	80
Farms reported devastating declines (sold almost nothing)	20
Price reductions reported by farmers	80
Price reductions by more than half reported by farmers	50
Drop in farm income	90
Drop in farm income by more than half	60

Disruption to food systems and impacts on livelihoods and diets have been brought into sharp focus by the COVID-19 pandemic. the aim of this study is to investigate effects of this multi-layered shock on production, sales, prices, incomes and diets for vegetable farmers in India as both producers and consumers of nutrient-dense foods.

majority of farmers report negative impacts on production, sales, prices and incomes. Over 80% of farms reported some decline in sales, and over 20% of farms reported devastating declines (sold almost nothing). Price reductions were reported by over 80% of farmers, and reductions by more than half for 50% of farmers. Similarly, farm income reportedly dropped for 90% of farms, and by more than half for 60%.

CONCLUSION

We are in the midst of a global crisis, and while the number one priority of policymakers is to save lives, we must also understand the short- and long-term impacts on global food security. It remains important for governments grappling with the COVID-19 public health crisis to continue to prioritize food and nutritional security the impact of COVID-19 on agriculture sector is an unprecedented challenge for India; its large population and the economy's dependence on informal labor make lockdowns and other social distancing measures hugely disruptive. The central and state governments have recognized the challenge and responded—but this response was just the beginning. India must be prepared to scale it up as events unfold, easing the economic impacts through even greater public program support and policies that keep markets functioning.

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- RAHUL KAPUR, SONAKA PRUTHI GUPTA AND KESAVAN, T. R., 2020, Decoding agriculture in india amid COVID -19 crisis. Reported FICCI, pp: 3-4
- SINGH, A. K., LAKHAN SINGH AND SUNIL KUMAR, 2020, Impact of COVID-19 on Agriculture and Allied Sectors. *Journal of Community Mobilization and Sustainable Development* Vol. **15**(1), 8-16.

DISCUSSION

1.How the migrant workers are affected during Covid 19 ?

During covid 19 pandemic migrant workers and daily wage workers are the major sufferers due to inaccessibility of daily wages and about 20% of 450 million work force mainly depends on daily wages ,out of which 35% are seasonal migrant workers for construction ,20% are from agriculture , and 16% people depends on manufacturing.

2. How corona affected contract wage workers in sugarcane ?

Due to restrictions on movement and lack of transportation facilities the labours can't able to reach the farm fields and leads to labour shortage and affects the harvesting.

3. Which are the main factors affected the Agriculture value chain ?

Main reasons affected the supply chain are labour shortage and exports are the important factors affects supply chain.

4. Which is the new initiative for transportation of agriculture produce?

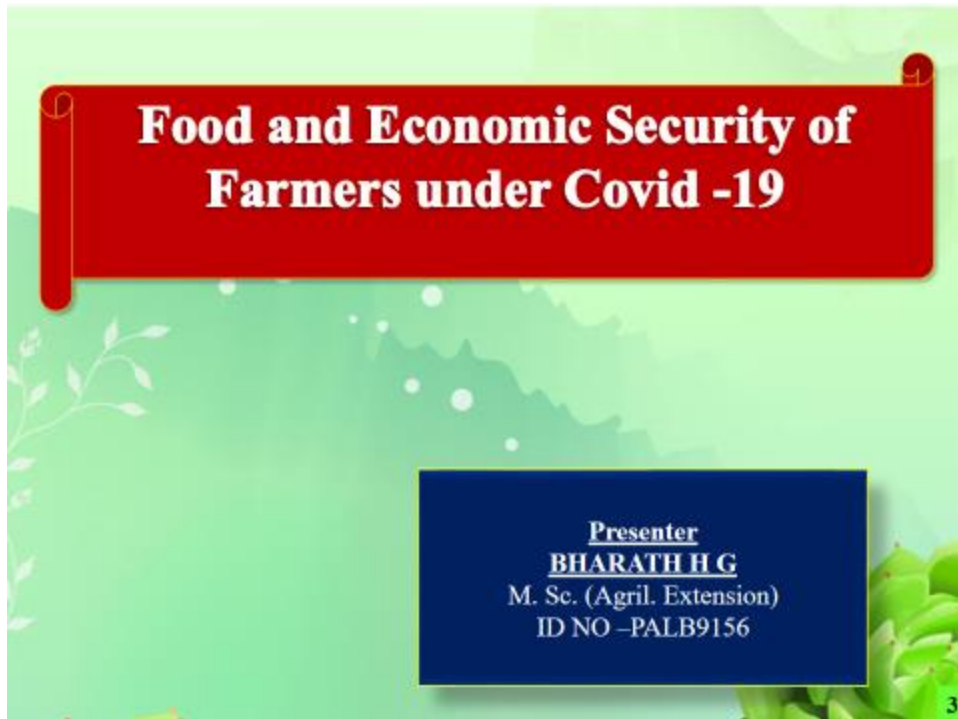
On 17th April union agricultural minister announced a “KISAN RATH” app where 5.5 lakhs vehicles are registered this app facilitate the farmers can easily send their agri produce in the Mandi during lockdown period KISAN RATH MOBILE APP” by union agricultural minister Narendra Singh Tomar for the farmers to transport their agricultural produce from field to mandi without any transport restriction.

5. What is the importance given for fishery sector during Covid ?

11,000 crore for activities in marine, inland fisheries and aquaculture, 9,000 crore for building infrastructure such as fishing harbours, cold chains and markets.

6. Effects of Covid on Agriculture ?

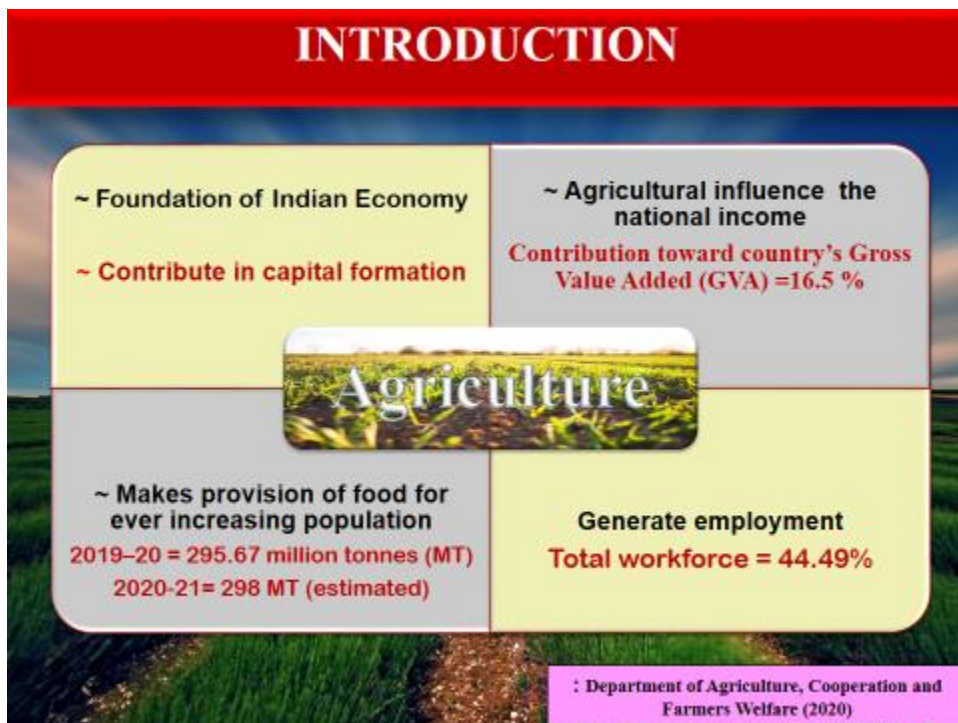
Due to reverse migration ,there is increase in the cropping area ,about 13% of crop sown area is increased and more people take animal husbandry and sheep rearing as their source of income for livelihood .



Food and Economic Security of Farmers under Covid -19

Presenter
BHARATH H G
M. Sc. (Agril. Extension)
ID NO -PALB9156

3



INTRODUCTION

~ Foundation of Indian Economy
~ Contribute in capital formation

~ Agricultural influence the national income
Contribution toward country's Gross Value Added (GVA) =16.5 %

Agriculture

~ Makes provision of food for ever increasing population
2019-20 = 295.67 million tonnes (MT)
2020-21= 298 MT (estimated)

Generate employment
Total workforce = 44.49%

: Department of Agriculture, Cooperation and Farmers Welfare (2020)

India has the second-largest **arable land** area in the world and a **coastline** of over **7,500 kilometres**.

Largest producer



Second-largest producer



Agriculture dividend

58%

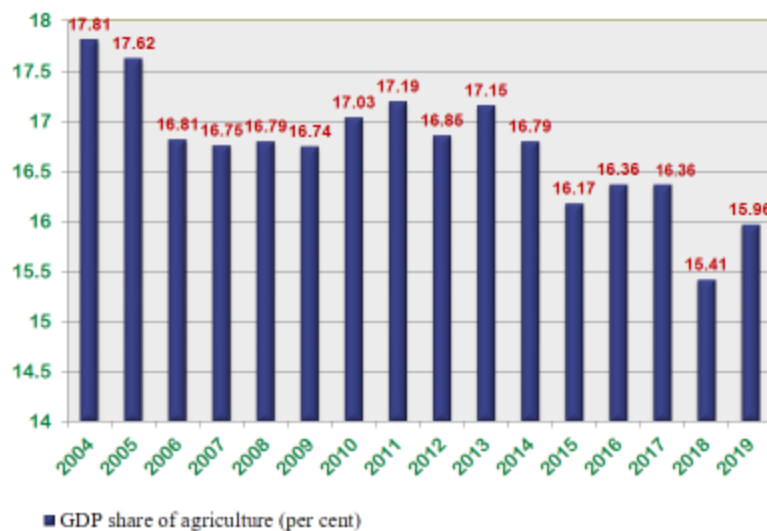
Source of livelihood for 58% of the country's population

44%

of the country's workforce is employed in agriculture

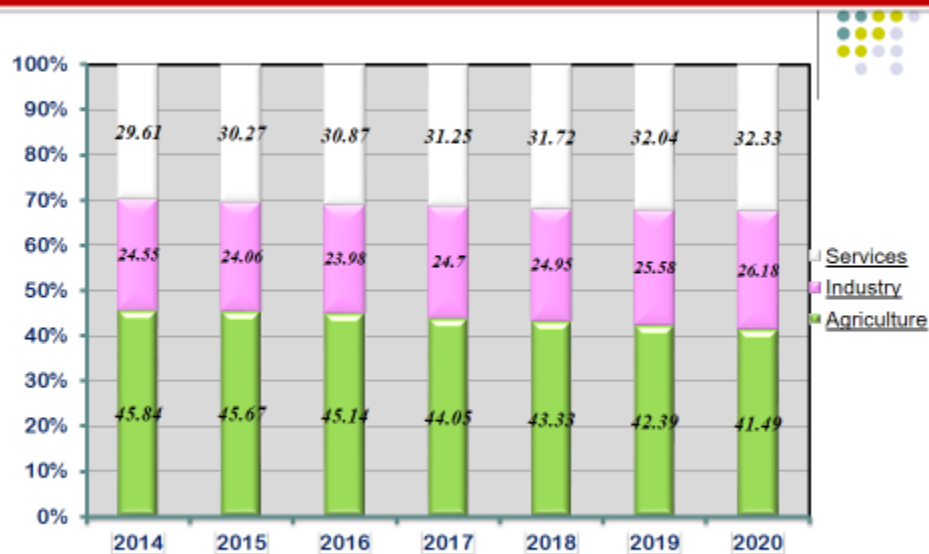
: Federation of Indian Chambers and Commerce and Industry (2020)

Contribution of Agriculture Sector in Indian GDP from 2004 to 2019



: The World Bank (2019)

Distribution of the Workforce across Economic Sectors from 2014 to 2020



: <https://www.statista.com/statistics/271320>
(2020)

OBJECTIVES

To understand the alterations of farmers food and economic security under COVID-19

To discuss Government interventions on food and economic security during COVID-19

To review research and case studies related to agriculture during COVID-19

COVID-19 Pandemic

Coronavirus: Coronavirus are virus groups that circulates among animals, but this COVID-19 strain is spreading among humans also.

Total Cases : India

(as of 10-12-2020)

Active: 3,72,293

Diseased: 1,29,674

Recovered: 92,53,306

Symptoms

Fever

Cough

Muscle pain

Tiredness

Difficulty Breathing



Transmission

Via Respiratory Droplets

2-14 days estimated
incubation period



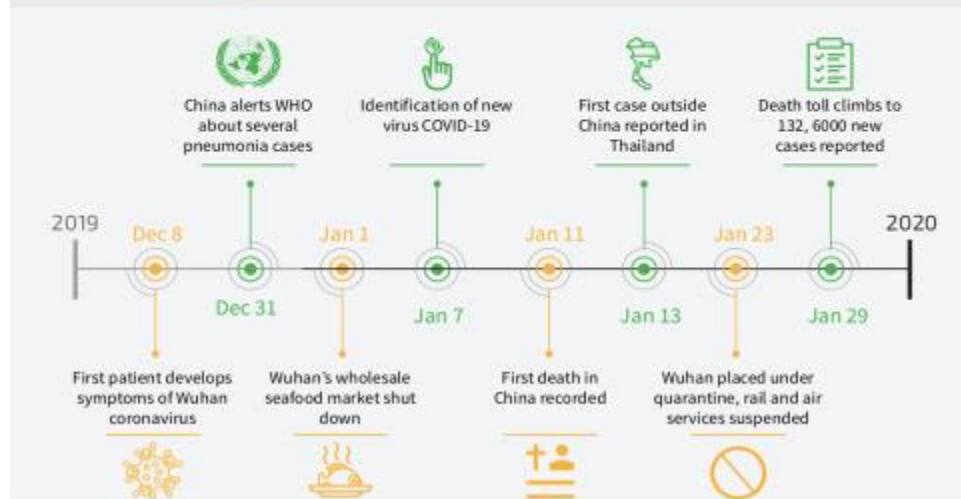
: Ministry of Health and Family
Welfare . Covid19India.org (2020)

Coronavirus Timeline

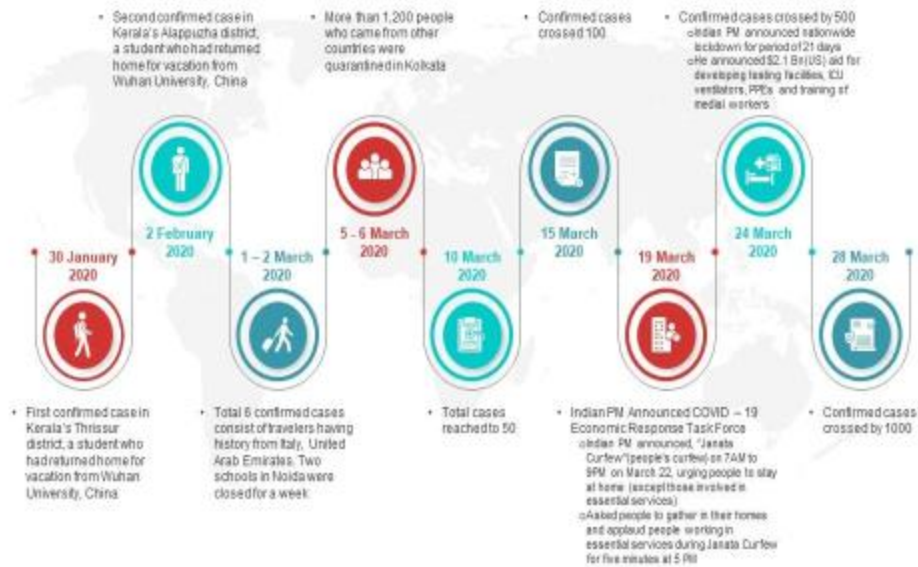
The Beginning worldwide



Coronavirus Timeline: The Beginning



OUTBREAK IN INDIA

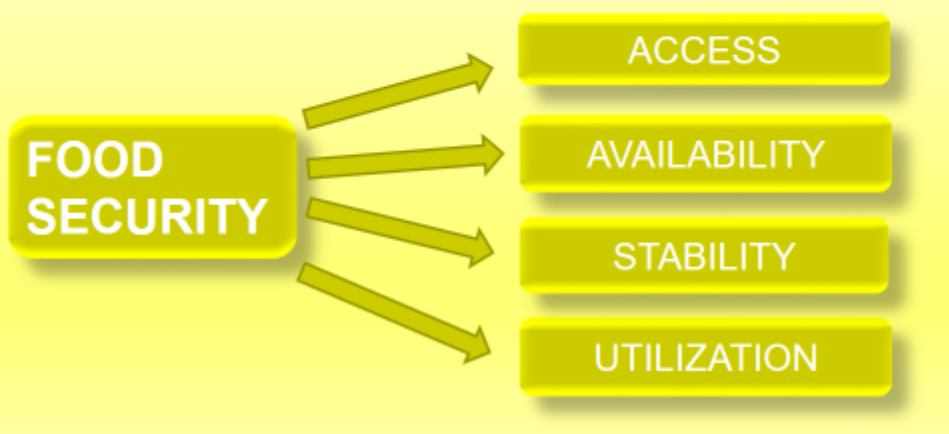


Nation wide lockdown (68 Days ~ 2 months)	Phase 1 (25 March- 14 April) 21 Days	Phase 2 (15 April- 3 May) 19 days	Phase 3 (4 may- 17 May) 14 Days	Phase 4 (18 May- 31 May) 14 Days	
Activities Permitted	Freight operations of railway, transport of essential goods, Agriculture activities, fire, police and emergency services, food shops, banks, ATMs, petrol pumps, other essential and their manufacturing.				
Unlock (148 Days)	Unlock 1.0 (1 June- 30 June) 30 Days	Unlock 2.0 (1 July-31 July) 30 Days	Unlock 3.0 (1 August- 31 August) 31 Days	Unlock 4.0 (1 Sept- 30 Sept.) 30 days	Unlock 5.0 (1 Oct- 31 Oct) 27 Days
Activities not allowed by Govt. of India/ state Governments	Railway, Educational Institutions, Cinema halls, Public gatherings etc.	Non essential Movement, Inter/Intra-district Buses with 50% capacity, Gymnasium	Limited international travel, recreational activities, metros, Yoga centres	Lockdown in Containment Zone only	Cinema halls till 15 October, Schools to be opened in graded manner

: [https://www.mha.gov.in/sites/files/ \(2020\)](https://www.mha.gov.in/sites/files/ (2020))

FOOD SECURITY

Food Security, means that all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious **food** that meets their **food** preferences and dietary needs for an active and healthy life.





ECONOMIC SECURITY



The ability of individuals, households or communities to cover their essential needs sustainably and with dignity.



COVID-19 induced challenges in agriculture





Food security of India



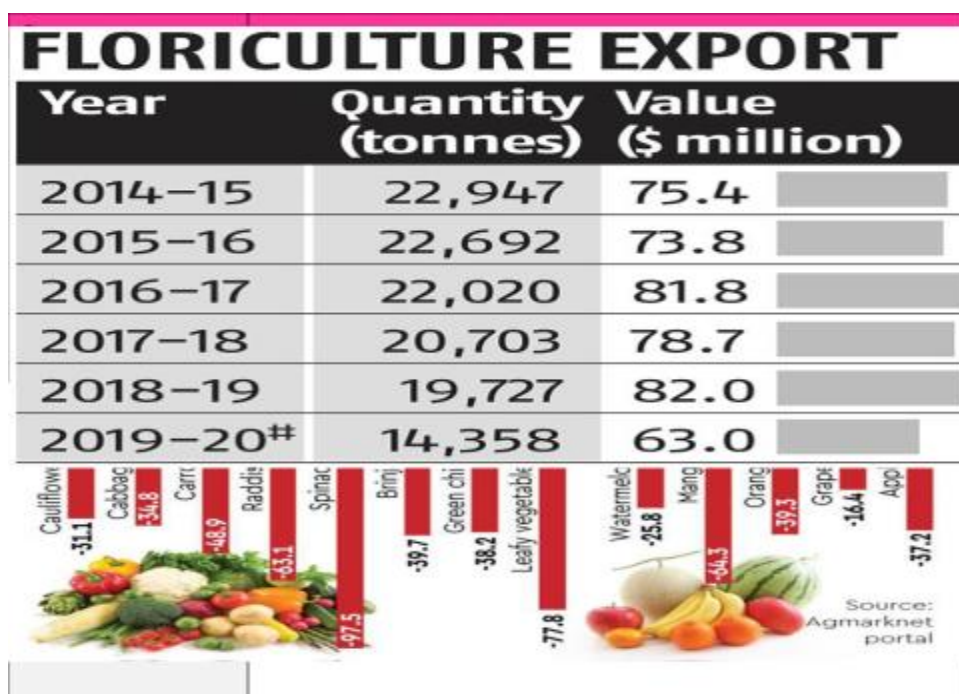
- The **availability** of food grains have not been affected
- As of **March 1, 2020**
Food grains:
rice = 309.76,
wheat = 275.21
Total = 584.97 lakh MT(source=FCI, GOI)
- As against other sectors of economy, agriculture sector showed some resilience in pandemic situation
- fruits and vegetables, eggs, meat, milk, and sugar that constitutes 78 percent of the total food consumption was impacted negatively.

Farming (Crops and Allied Activities)

Crops	Challenges
FOOD GRAINS	
Wheat	<ol style="list-style-type: none"> 1. A burden on carrying stocks and a <u>negative trading interest</u>. The government may be the only buyer of wheat from farmers. 2. Government increased the MSP of wheat for 2020-21 Rabi marketing season <u>by 4.61%</u> (to INR 1,975 per quintal).



Crops	Challenges
	COMMERCIAL CROPS
Sugarcane	<ul style="list-style-type: none"> • Transport and labour shortage. • Delay in payments from sugar mills is resulting in farmers selling sugarcane produce to local traders at much lower prices. • Advisories on avoiding social and public gatherings, sugar consumption has drastically dropped
Jute	<ul style="list-style-type: none"> • Jute bags is mandatory for packing food grains, sugar, and for export of other crops, the <u>demand for jute bags</u> witnessed a rapid growth during the lockdown. However, the supply was constrained due to labour shortage. Jute mills have pending orders to the tune of 6 lakh bales of jute.
cotton	<ul style="list-style-type: none"> • Cotton accounts, 29% of India's textile trade. Demand for cotton has drastically reduced due to closure of textile mills. • Post relaxation, textile mills are operating at half of their capacity





ಶ್ರೀಮತಿ ಸತ್ಯವತಿ ಹೆಚ್.ಎಸ್. ಸಾಂಸ್ಕೃತಿಕ ಸಂಸ್ಥೆಯ ಅಧ್ಯಕ್ಷರು. ಇವರು ಸಾಂಸ್ಕೃತಿಕ ಕ್ಷೇತ್ರದಲ್ಲಿ ಹಲವಾರು ಸಾಧನೆಗಳನ್ನು ಸಾಧಿಸಿದ್ದಾರೆ. ಇವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿರುವ ಸಾಂಸ್ಕೃತಿಕ ಸಂಸ್ಥೆಯು ಹಲವಾರು ಸಾಂಸ್ಕೃತಿಕ ಕಾರ್ಯಕ್ರಮಗಳನ್ನು ಆಯೋಜಿಸಿದೆ. ಇವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿರುವ ಸಾಂಸ್ಕೃತಿಕ ಸಂಸ್ಥೆಯು ಹಲವಾರು ಸಾಂಸ್ಕೃತಿಕ ಕಾರ್ಯಕ್ರಮಗಳನ್ನು ಆಯೋಜಿಸಿದೆ.



ಹೊಸತರಗತಿ ಹಿರಿಯರಾದ ಶ್ರೀಮತಿ ಕಾರ್ಯಕ್ರಮದ
ಅಧ್ಯಕ್ಷತೆ ವಹಿಸಿ ಸಾಕಾರವಾಗಿದೆ.

39



Market arrivals during 1st March to 10th April, '000 tonnes

Crops	2019	2020	% changes
Wheat	2,543	1,031	-59
Paddy Common	1,035	851	-18
Potato	1,494	837	-44
Arhar	96	79	-17
Lentil	104	91	-12
Bengal Gram	591	128	-78
Urad	51	24	-53
Green Gram	31	12	-62

AGMARKNET (2020)

Impact of Covid 19 on Un-organized sector



INDIA'S MIGRANT WORKERS



ABOUT 20% OR 100 MILLION
OF INDIA'S ESTIMATED
450 MILLION WORKFORCE
ARE MIGRANT WORKERS

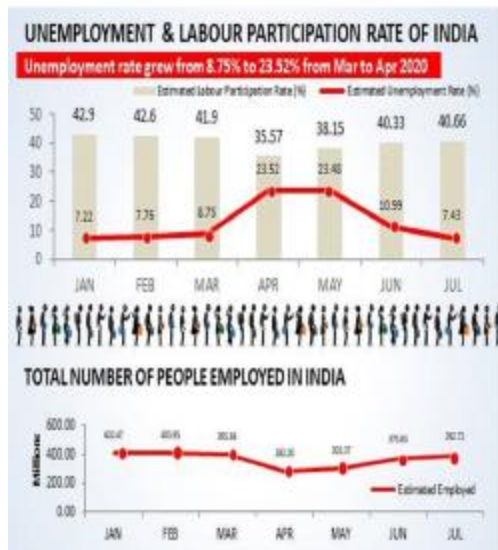


80% OF THESE MIGRANT
WORKERS ARE MEN



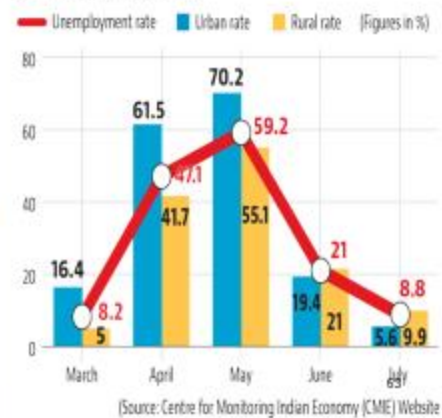
MORE THAN 35% OF SEASONAL
MIGRANTS WORK IN CONSTRUCTION,
20% IN AGRICULTURE AND
16% IN MANUFACTURING

SOURCES: Indian government, International Labour Organization,
Institute for Indian Development, World Bank



EMPLOYMENT IN LOCKDOWN

Economists say unlock relaxations and Kharif season helped reduce unemployment rate



Dairy Sector

Dairy Sector

- Contributing 4.4 % to national GDP, growing @6 % per annum and organised sector growing in double digits

General Info.

- 10 crore families
- India no. 1 producer of dairy products: 186 Million tonnes
- India's contribution to world milk production 22 % (2019)

Supply Chain

- Cow to Consumer
- Running Supply chain

Exports

- India exported 51,421.85 metric tonnes of dairy products (2019-20)
- Value : Rs 1342.03 crore
- Major destinations – UAE, Bhutan, Turkey, Egypt, USA

67

Challenges (Dairy Sector)

- Operational challenges: Transportation of material, procuring milk and workers shortage

- Cattle feed is hard to procure and prices have shoot up by 40%

- Artificial insemination has stopped due to the lockdown so farmers have been inseminating cattle using low-quality bull. This will result in low-quality offspring next year, low yield and income for farmers

BAMUL again reduces procurement price by ₹2.5 a litre

BAMUL is able to sell only 40 lakh litres of the 50 lakh litres procured daily.

COVID-19

Because the dairy sector is a business, it is not immune to the economic challenges of the world. The price of milk has fallen by 10-15% in the last few months. This is due to the lockdown and the fact that the government has reduced the procurement price of milk.

From July to September 2020, the price of milk has fallen by 10-15% in the last few months. This is due to the lockdown and the fact that the government has reduced the procurement price of milk.

Milk unions want govt. to hike incentive

Milk unions are demanding that the government should increase the incentive for milk production. They say that the current incentive is not enough to encourage farmers to produce more milk.

The government has to take steps to increase the incentive for milk production. This will help farmers to produce more milk and increase their income.

Poultry Sector

Challenges

- Rumours regarding the spread of virus by the consumption of meat and poultry started doing the rounds leading to sales decline.
- The projected losses in this sector by the end of April 2020 were estimated at INR 27,000 crore.
- Constraint supply chain and low demand has led to more than 50 crore placed chicken to be destroyed.
- Poultry farmers are suffering an average loss of INR 130 per bird



Fisheries Sector

Challenges

- Fish industry is facing consumption challenges due to shutdown of the HoReCa sector
- Fish consumption has decreased by 40%.
- Most of the brood stock is imported into India. Due to the ports and logistics providers not operating during the lockdown, this has put pressure on the seed production in the shrimp hatcheries.

: FICCI, Grant Thornton
(Report) (2020)

Micro irrigation



The sector is expected to
Shrink by 50%
in the short term due to the
absence of an annual action plan
of PMKSY.



Installation of micro-irrigation system
to reduce by
More than 40%
in the current Kharif season.



: FICCI, Grant Thornton
(Report) (2020)

Seed industry



15-20%
The seed industry witnessed
15-20% drop in sales during
the lockdown.



30%
of the cotton and maize hybrid seed
replacement market is lost for the
Kharif season.

The seed sector is worth INR 28,700 crore¹⁶, of which



: FICCI, Grant Thornton
(Report) (2020)

Agrochemicals Sector

	2018-19	2019-20	% changes
Production*	217	185	- 14.4
Exports	461	452	- 2.0
Imports	117	106	- 9.4
Net profit margin (%)	6.6	6.1	-7.5 %
	2020-21 (April 2020)		
Production		5.3	- 59.8 %

• 000 TONNES
• TECHNICAL GRADE ONLY

: Agrochemicals industry July
update (Report): CARE
Ratings Ltd. (2020)

Changes in Agriculture sector during Covid-19



- Procurement under MSP of wheat during the rabi marketing season (2020-21) till June 12 has been 37.7 million MT (up 11% from 33.9 million MT) compared to 2019-20.
- Procurement of pulses is also higher than last year benefiting over 8.7 lakh farmers.
- The current *kharif* season has also registered 13% increase in crop sown area as compared to previous year.

81

[illegible]

47

ಕೃಷಿ ಚಟುವಟಿಕೆ ಸಮೃದ್ಧ

ಕೊರೋನಾ ಮೆಟ್ಟಿ ನಿಂತ ಬೇಸಾಯದ ಉಲ್ಲಾಸ
ಉತ್ತಮ ಮಳೆ, ಕೃಷಿ ಇಲಾಖೆಯಿಂದಲೂ ಸಿದ್ಧತೆ

• ವಿಳಿಬಿಡುಗಡೆ ಹಿರಿಯರೊಡನೆ

ರಾಜ್ಯದ ಗ್ರಾಮೀಣ ಜನರು ಕೊರೋನಾ ಆತಂಕದಿಂದ ಮೆಚ್ಚುನೀರಿನ ಕೃಷಿ ಚಟುವಟಿಕೆಯನ್ನು ಪ್ರಾರಂಭಿಸಿದ್ದಾರೆ. ಕೊರೋನಾ ಮೆಟ್ಟಿ ನಿಂತ ಬೇಸಾಯದ ಉಲ್ಲಾಸ ಮಳೆ, ಕೃಷಿ ಇಲಾಖೆಯಿಂದಲೂ ಸಿದ್ಧತೆ. ಕೃಷಿ ಇಲಾಖೆಯು ಕೊರೋನಾ ಮೆಟ್ಟಿ ನಿಂತ ಬೇಸಾಯದ ಉಲ್ಲಾಸ ಮಳೆ, ಕೃಷಿ ಇಲಾಖೆಯಿಂದಲೂ ಸಿದ್ಧತೆ.



Positive NEWS

ಭಾರಿ ನಿರೀಕ್ಷೆ ಎಕೆ?

ಮೇ ಹಿಂಗಲೆ ಆರಂಭವಾಗಿದ್ದರೆ ಮಳೆಯುಳ್ಳದ್ದರಿಂದ ಬೇಸಾಯ ಕೃಷಿ ಚಟುವಟಿಕೆ ಆರಂಭ. ಬೇಸಾಯ ಕೃಷಿ ಚಟುವಟಿಕೆ ಆರಂಭ. ಬೇಸಾಯ ಕೃಷಿ ಚಟುವಟಿಕೆ ಆರಂಭ.

ರಾಜ್ಯದ ಜನರು ಬೆಳೆಸುತ್ತಿರುವ ಕೃಷಿ ಇಲಾಖೆಯು ಕೊರೋನಾ ಮೆಟ್ಟಿ ನಿಂತ ಬೇಸಾಯದ ಉಲ್ಲಾಸ ಮಳೆ, ಕೃಷಿ ಇಲಾಖೆಯಿಂದಲೂ ಸಿದ್ಧತೆ. ಕೃಷಿ ಇಲಾಖೆಯು ಕೊರೋನಾ ಮೆಟ್ಟಿ ನಿಂತ ಬೇಸಾಯದ ಉಲ್ಲಾಸ ಮಳೆ, ಕೃಷಿ ಇಲಾಖೆಯಿಂದಲೂ ಸಿದ್ಧತೆ.

ರಸಗೊಬ್ಬರ ಹಂಚಿಕೆ

ಮೊದಲನೆಯ	8.50 ಲಕ್ಷ ಟನ್
ಎಂ.ಎಂ.	2 ಲಕ್ಷ ಟನ್
ಡಿ.ಎಂ.	4 ಲಕ್ಷ ಟನ್
ಎಂ.ಎಂ.ಎಂ.	0.75 ಲಕ್ಷ ಟನ್
ಕಾಂಪೌಂಡ್	7.60 ಲಕ್ಷ ಟನ್
ಒಟ್ಟು	22.85 ಲಕ್ಷ ಟನ್

ಯಾವ ಬೆಳೆ ಎಷ್ಟು

ಒಟ್ಟು ನಿಕ್ಷೇಪದೊಳಗೆ	73.0
ಜೋಳ	11.8
ಕೆಂಪು ಕೋಣೆ	11.6
ಬೇಳೆ	10.05
ಪೇಪೆ	6.25
ಬೇಳೆಗಡಲೆ	4.90

ಉತ್ತಮ ಮುಂಗಾಲು ನಿರೀಕ್ಷೆಯಲ್ಲಿ ದೈತರುಗಳು

ಇತರೆ: ಹಿರಿಯ, ಉದ್ಯಮಿ, ಜನಪ್ರಿಯ, ಸೋಮವಾರ, ಸೋಮವಾರ

Extension Activities in Covid-19

- KVK ,SAUs, ICAR institutes, NGOs and FPOs across the country are actively engaged in providing crop specific, location specific agro-advisory services during this pandemic.
- ICAR has published an e-book which throws light upon the innovative approaches taken by different KVKs to provide useful advisory services to farmers.
- Information and Communication Technology (ICT) effectively to reach farmers
- Collaboration of KVKs and FPOs for helping farmers more efficiently assisting to create alternate supply chains wherever necessary
- KVKs can inspire Self Help Groups to help common people creating jobs in and around agriculture through secondary agriculture activities to provide employment to migrant workers



ಬೆಪ್ ಸಹಿತ ಕಾರ್ಡ್‌ನಲ್ಲಿ ಕೃಷಿಕರ ಸಮಗ್ರ ವಿವರ | ಸಚಿವ ಪಾಟೀಲ್ ಪ್ಲಾನ್

ರಾಜ್ಯದ ರೈತರಿಗೆ ಶೀಘ್ರವೇ ಐಡಿ ಕಾರ್ಡ್

■ ವಿಶ್ವ ಮಿಷನ್‌ನಲ್ಲಿ ಬೆಂಗಳೂರು

ಬೆಂಗಳೂರಿನಲ್ಲಿ ಆವರಣದಲ್ಲಿ ಕೃಷಿಕರು ಹಾವು ಬೇರೆ ಉತ್ಪಾದನೆ ಮಾಡುವ ಮೂಲಕವಾಗಿ ಸಾಗಿಸಲು ವಿತರಣೆ ಮಾಡಿದ 'ಗ್ರೀನ್ ಪಾನ್' ಉಪಯುಕ್ತವೆಂದು ಪ್ರಕಟವಾಗಿದ್ದು ಕೃಷಿ ಸಚಿವ ಬಿ. ಸಿ. ಪಾಟೀಲ್ ಅವರು ಈಗ ರೈತರಿಗೆ ಉಚಿತ ಗುರುತಿನ ಚೀಟಿ ವಿತರಣೆ ಮಾಡುವ ಕಾರ್ಯವನ್ನು ತೀರ್ಮಾನ ಕೈಗೊಂಡಿದ್ದಾರೆ.

ರೈತರ ಹೆಸರು, ರೈತ ಹೊಂದಿರುವ ಭೂಮಿ ವಿವರ, ಡ್ರಾಂಗ್ ಹಾಕಿ ವಿವರ, ಆಧಾರ್ ಸಂಖ್ಯೆ ಮತ್ತಿತರ ಸಮಗ್ರ ವಿವರಗಳನ್ನು ಒಳಗೊಂಡ ಐಡಿ ಕಾರ್ಡ್ ವಿತರಣೆಗೆ ಐದಾರು ಕೈಗೊಳ್ಳಲಾಗಿದೆ ಎಂದು ಪಾಟೀಲ್ ಅವರು 'ವಿಕೆ'ಗೆ ತಿಳಿಸಿದರು.

'ಕೃಷಿ' ಹೆಸರಿನ ಈ ಗುರುತಿನ ಚೀಟಿಯಲ್ಲಿ ಬೆಪ್ ಒಳಗೊಂಡಿದ್ದು, ಸ್ಟೇಟ್ ಮಾಡಿದರೆ ಎಲ್ಲ ವಿವರ ಲಭ್ಯವಾಗುವಂತೆ ವ್ಯವಸ್ಥೆ ಮಾಡಲಾಗುತ್ತಿದೆ. ಎಲ್ಲ ರೈತ



ಬಿ.ಸಿ. ಪಾಟೀಲ್ ಕೃಷಿ ಸಚಿವರು

ಸಂಪರ್ಕ ಕೇಂದ್ರಗಳ ಮೂಲಕ ಈ ಕಾರ್ಡ್ ಗಳ ವಿತರಣೆಗೆ ತೀರ್ಮಾನ ಕೈಗೊಳ್ಳಲಾಗಿದೆ ಎಂದು ಹೇಳಿದರು.

"ಈ ಕಾರ್ಡ್‌ನಲ್ಲಿ ಪ್ರಗತಿಯನ್ನು ರೈತರು ಸರಕಾರದ ಮಾಹಿತಿಗಾಗಿ, ಸಮಗ್ರತೆಗಾಗಿ ಆರ್ಥಿಕ ಎಂಬುದೂ ಸ್ಪಷ್ಟವಾಗಿದೆ. ಬೇರೆ ಪರಿಹಾರ ವಿತರಣೆ ರೈತರ ಪಾಕೆ

ತೆವಣ್ಣು ಕೃಷಿ ಮತ್ತೆ ಕೃಷಿಕರ ಬದುಕಿನಲ್ಲೂ ಸುಧಾರಣೆ ತರಬೇತು. ಕೃಷಿ ಮುನ್ನಡೆಗಾಗಿ ಆರ್ಥಿಕ ಸಮಗ್ರ ಬಗೆಪಡೆಯುತ್ತದೆ. ಆನ್‌ಲೈನ್ ಮುಖಾಂತರ ಮೂಲಕ ರೈತ ಹೆಸರಿನ ಲಭ್ಯವು ಮಾಡುವ ಸ್ಪಷ್ಟತೆಯನ್ನು ಸಾಧಿಸಿದೆ.

ವಿವರಗಳಾಗಿ ತರಬೇತು ಮತ್ತೆ ಕೃಷಿ ಮುಂದುವರಿಯ ಬಾರದು. ಈ ವಿಷಯದಲ್ಲಿ ಪ್ರಯತ್ನ ಸತತವಾಗಿರುತ್ತದೆ." ಎಂದರು. "ಬೆಂಗಳೂರಿನಲ್ಲಿ ಕೃಷಿ ಉತ್ಪಾದನೆ ಸಾಗಣೆಗೆ ಎದುರಿಸುವ ಸಮಸ್ಯೆಗಳಿಗೆ ಪರಿಹಾರವೆಂಬಂತೆ 'ಗ್ರೀನ್ ಪಾನ್' ವಿತರಣೆ ಸುಗಮ ಪಡೆಗೆ ಸಾಧ್ಯವಾಯಿತು. ಎಲ್ಲ ಉದ್ಯೋಗಗಳೂ ಗುರುತಿನ ಚೀಟಿ ಇರುವಾಗ ಕೃಷಿಗಾಗಿ ವಿಶೇಷ ಎಂಬ ಪ್ರತ್ಯೇಕ ಕಾರ್ಡ್. ಆಗಲೇ ಈ ಬಗ್ಗೆ ಚಿಂತೆ ಹೊಳೆಯಿತು. ಆದರೆ ಪರಿಣಾಮವಾಗಿಯೇ ರೈತರಿಗೆ ಉಚಿತ ಐಡಿ ಕಾರ್ಡ್ ವಿತರಣೆ ಕೆಲವೇ ಸಾಕಾರದ ಪಾದಿ ಸುಲಭವಾಗಿದೆ." ಎಂದು ಪಾಟೀಲ್ ವಿವರಿಸಿದರು.

ಲಾಕ್‌ಡೌನ್ ಅವಧಿಯಲ್ಲಿ 640 ಟನ್ ಹಣ್ಣು, ತರಕಾರಿ ನೇರ ಮಾರಾಟ ರೈತರ ಕೈಪಿಡಿದ ಅಗ್ರಿ ವಾರ್‌ರೂಂ

■ ಬೆಂಗಳೂರು 4, ರಾಜ್ಯಪ್ರಭಾಕರ

ಹಣ್ಣು, ತರಕಾರಿ, ಫಿಲ್ಮ್ ರೈತರು ಲಾಕ್‌ಡೌನ್ ಅವಧಿಯಲ್ಲಿ ಉತ್ಪಾದಿಸಿದ ಹಣ್ಣು, ತರಕಾರಿಗಳನ್ನು ನೇರ ಮಾರಾಟ ಮಾಡುವ ಮೂಲಕವಾಗಿ ಸಾಗಿಸಲು ವಿತರಣೆ ಮಾಡಿದ 'ಗ್ರೀನ್ ಪಾನ್' ಉಪಯುಕ್ತವೆಂದು ಪ್ರಕಟವಾಗಿದ್ದು ಕೃಷಿ ಸಚಿವ ಬಿ. ಸಿ. ಪಾಟೀಲ್ ಅವರು ಈಗ ರೈತರಿಗೆ ಉಚಿತ ಗುರುತಿನ ಚೀಟಿ ವಿತರಣೆ ಮಾಡುವ ಕಾರ್ಯವನ್ನು ತೀರ್ಮಾನ ಕೈಗೊಂಡಿದ್ದಾರೆ.

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ಅಗ್ರಿ ವಾರ್‌ರೂಂ ಉದ್ಘಾಟನೆ ಸಂದರ್ಭದಲ್ಲಿ ಸಚಿವರೊಂದಿಗೆ ರೈತರು.

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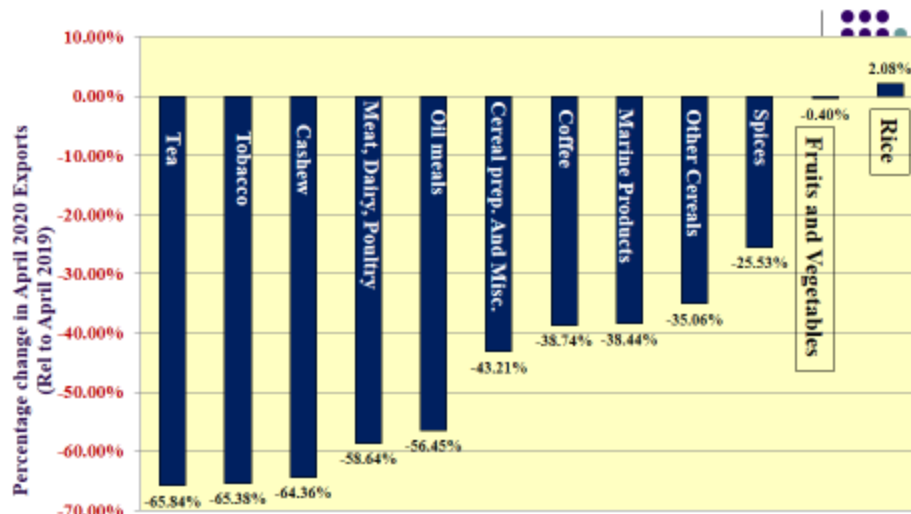
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ಮಾವು, ದ್ರಾಕ್ಷೆ ಮಾರಾಟ

ಕೃಷಿ ವಿವಿ ಅಗ್ರಿವಾರ್ ಘಟಕದ ಮೂಲಕ ಬೆಳೆವಣಿಗೆ ಆವರಣದಲ್ಲಿ ರೈತರ ಉತ್ಪನ್ನ ಮಾರಾಟಕ್ಕೆ ಅವಕಾಶ ಕಲ್ಪಿಸಲಾಗಿದ್ದು ದೇವನಹಳ್ಳಿ ತಾಲೂಕಿನ ಹಾರೋಹಳ್ಳಿ ಗ್ರಾಮದ ರೈತ ವೆಂಕಟೇಶ್ ಬೆಳೆದಿರುವ 2 ಟನ್ ದ್ರಾಕ್ಷೆ, ಶ್ರೀನಿವಾಸಪುರ ತಾಲೂಕಿನ ಕೊಟ್ಟಗುಡಿಯ ಎಲೆಕ್ಟ್ರಿಕ್ ರೆಡ್ಡಿಯವರು 3 ಎಕರೆಯಲ್ಲಿ ಬೆಳೆದ ಮಾವು ಮಾರಾಟ ಮಾಡಲಾಗಿದೆ.

Agri war room contact number
18004250571



International exports of agricultural commodities (April 2020, relative to April 2019)

Relative to April 2019, 29.6 % dip in export of major Agri-commodities of Rs. 5106 crores

: Ministry of Commerce, Government of India (2020)

Policy Initiatives

Government's support to Agriculture



- Under the PM-KISAN scheme with a transfer of INR 2,000 each into their bank accounts. INR 17,986 crore have been transferred to the beneficiaries since 24 March 2020.
- The PM Fasal Bima Yojana has been made voluntary for all farmers, consequently, government will bear 90% of premium subsidy liability for North Eastern states, in place of the 50% subsidy given earlier.
- The Reserve Bank of India (RBI) has granted a moratorium on agricultural term and crop loans for a period of 3 months (till 31 May 2020), with a 3% concession on the interest rate of crop loans, up to INR 3,00,000, for borrowers with a good repayment record.

: PIB, GoI

Support for agriculture

- Minimum support price (MSP) purchase of more than INR 74,300 crore
- Payment of INR 6,400 crore released under PM Fasal BimaYojana

Support for animal husbandry

- 560 lakh litre per day (LLPD) milk bought by co-operatives to overcome reduced demand
- Additional 111 crore litre milk procured, with payments of INR 4,100 crore
- New scheme to provide interest subvention at 2% p.a. to dairy cooperatives in 2020-21
- Animal Husbandry Infrastructure Development Fund allocation of INR 15,000 crore

Support for fisheries

- Validity of sanitary import permits (SIPs) for import of shrimp brood stock extended by three months
- Pradhan Mantri Matsya Sampada Yojana – INR 20,000 crore allocated for fishermen to support integrated, sustainable, and inclusive development of marine and inland fisheries

Operation Green – TOP

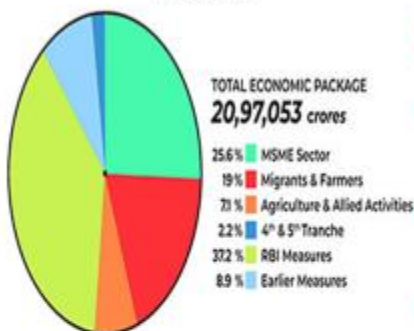
- Additional **INR 500 crore** earmarked for supply chain disrupted by lockdown
- **50% subsidy** to be given on transportation from surplus to deficit markets
- **50% subsidy** to be given on storage, including cold storage

ECA & Agri. Marketing Reform

- Essential Commodities Act - The Essential Commodities Act (1955) to be amended to enable better price realisation for farmers by attracting investments and make the agriculture sector competitive.

: USFDA: COVID-19 in India - GOI's Economic Package for Self-Reliant India - Food and Agriculture Items (2020)

Economic Stimulus Package Breakdown



- Setting up of Rs 1 lakh cr agriculture fund for farm-gate infrastructure

- Rs 4,000cr for herbal cultivation in India

- Rs 10,000cr scheme for formalisation of micro food enterprises (MFE)

- Rs 20,000cr for fishermen through Pradhan Mantri Matsya Sampada Yojana

- Animal Husbandry Infrastructure Development fund worth Rs 15,000cr

- Rs 500 crore scheme for infrastructure development related to bee-keeping

- Amendments to Essential Commodities Act to enable better price realisation for farmers



- Agriculture marketing reforms to provide marketing choices to farmers

- Extension of 'Operation Greens' to all fruits and vegetables

- Legal framework to help farmers fix their own price for products

- Launch of National Animal Disease Control Programme for foot and mouth disease with outlay of Rs 13,343cr



Food system disruption: initial
livelihood and dietary effects
of COVID-19 on vegetable
producers in India

Harris *et al.* , 2020

109

Table - 1 : Overall effect of COVID-19 on Vegetables Harvesting

		Andhra Pradesh	Assam	Jharkhand	Karnataka	Total
Observations	n	29	163	200	56	448
Farm size	ha	2.89	1.48	0.80	2.77	1.43
Veg. production disrupted	%	76	77	94	100	87
Unable to sell part of veg. Harvest	%	83	75	76	100	79

Number of respondents -448

Table - 2 :Overall impact of Covid 19 on sales ,price and farm income

n=448

Particulars	Results (%)
Farms reported some declines in sales	80
Farms reported devastating declines (sold almost nothing)	20
Price reductions reported by farmers	80
Price reductions by more than half reported by farmers	50
Drop in farm income	90
Drop in farm income by more than half	60



Impact of COVID-19 on Agriculture and Allied Sectors

Singh *et al.* , 2020

Table -1 Effect on Livestock Sector

N=1,748



S. No.	Statements	Responses	
		Yes	No
1	Do you feel that farmers are facing problem in selling of milk in the district?	1065 (60.9%)	683 (39.1%)
2	Do you think that the prices of milk have fallen down in the villages?	803 (45.9%)	945 (54.1%)
3	Do you feel that there is an interrupted supply of feed and concentrate for animals?	1272 (72.8%)	476 (27.2%)
4	Do you think that Veterinarians are serving uninterruptedly for the farmers?	1229 (70.3%)	519 (29.7%)
5	Do you feel that Government has allowed farmers to sell their products with curfew passes is a good initiative?	1670 (95.5%)	78 (4.5%)
6	Do you feel that appropriate advisories provided by KVK experts through different social media are effective?	1719 (98.3%)	29 (1.7%)

Table -2 Effect of COVID-19 on labourers in Agriculture and Allied Enterprises **N=1748**

S. No.	Statements	Responses	
		Yes	No
1.	Do you feel that daily landless wage workers affected most due to coronavirus infection?	1542 (88.2%)	206 (11.8%)
2.	Do you feel that Procurement operations have been affected due to labour shortage for loading, unloading of produce?	1526 (87.3%)	222 (12.7%)
3.	Do you feel that despite of work, some workers want to stay home and waiting for Government welfare schemes?	1198 (68.5%)	550 (31.5%)
4.	Do you think that migratory workers will start his/her enterprise in their area according to their skill/expertise?	1143 (65.4%)	605 (34.6%)
5.	Do you feel that financial assurance through MGNREGA, PM Jan Dhan Yojna and Kisan Samman Nidhi (KISAN) Yojna has helped the farmers?	1654 (94.6%)	94 (5.4%)
6.	Do you feel that labourers can work in the field on the slogan of <i>Do Gajhi Door</i> (distancing by 2 feet) and by practicing hygiene practices?	1539 (88%)	209 (12%)



Table -3 Effect on Horticulture Sector **N=1,748**

S. No.	Statements	Responses		Mean	Std. deviation
		Yes	No		
1.	Do you feel that the harvesting of major fruit crops has been affected in the district?	1136 (65%)	612 (35%)	0.649	0.477
2.	Do you think that due to restricted opening of shops the supply of critical inputs can be assured for farmers?	1223 (70%)	525 (30%)	0.699	0.458
3.	Do you feel that the sale and transportation of ornamental flowers and seedling/saplings from nurseries have been severely affected?	1584 (90.6%)	164 (9.4%)	0.906	0.291
4.	Do you feel that as an alternative mechanism for marketing such as door to door supply has empowered group of farmers?	1449 (82.9%)	299 (17.1%)	0.828	0.376
5.	Are you satisfied with the joint efforts of KVKs with FPOs/FPCs/SHGs to solve the horticulture-related problems to a greater extent in the area?	1615 (92.4%)	133 (7.6%)	0.923	0.265
6.	Do you feel that relaxation is given by Govt. has helped the farmers, traders, vendors, etc. in meeting the demand and supply of horticultural commodities up to a certain extent?	1647 (94.2%)	101 (5.8%)	0.942	0.233

121

Conclusion

- ❑ 1/3 rd of farmers stored the produce due to lockdown. Among all commodities sale and harvesting of vegetables was majorly affected.
- ❑ About 53% farmers reported increased harvesting cost because of covid-19.
- ❑ In 2020 Pulse and food grains specifically Bengal gram, Green gram, wheat reported a maximum decrease in arrivals. So after lockdown arrivals changed.
- ❑ Retail and wholesale prices majorly changed in case of Tomato, Potato and Urad.

Conclusion

- ❑ Overall on sector level manufacturing sector reported maximum and agriculture sector reported minimum job loss.
- ❑ Across supply chain major issues were labour availability, Transportation, Documental procedures, Raw material supply, Laboratory verification and Foreign Government approvals.
- ❑ Moreover, many retailers reported problem in smooth operations and 25 % reported that they faced problem in getting the required products. About 43 % reported higher transportation cost during lockdown period.
- ❑ Majority of farmers and households reported a decent supply of food and did not faced any difficulty.
- ❑ In case of poultry, eggs reported a declined consumption mainly because of rumors and broken supply chain.



THANK YOU

