The devastating impact of COVID-19 on the flower sector in India is visible even in regions where the virus has not affected people. This has been caused by the complete prostration of the market as a result of the nationwide lockdown in the wake of the pandemic. The Departments of Horticulture in some provinces are starting to undertake surveys to assess the losses in this sector. A detailed COVID-19 impact assessment urgently needed on the floriculture sector. This article discusses some of the impacts of floriculture lockdowns. It also addresses the blows of the economic slowdown on agriculture.

**Key Words:** Horticulture, floriculture, COVID-19, pandemic.

**1. Introduction**

Agriculture is the linchpin of any economy. It is the primary sector which generates employment, so that the entire circle of economic circulation goes on. When we talk about the Indian economy the population’s legal age is limited to this market. Induced a huge hit by the corona virus pandemic and subsequent lockdowns by the Indian economy. The International Monetary Fund expects to slash global output by 4.9 per cent in 2020, while India’s GDP is predicted to contract as much as 4.5 percent. But the agriculture sector is the silver lining in the year 2020-21, said the department of economic affairs released the monthly economic report for July.

In the aftermath of COVID-19 the lockdown has significantly disrupted economic activities and supply chains. Globally the millions of people are infected with COVID-19 and the death toll is rapidly rising. The lockdown is expected to flatten the infection curve and essential economic activities and services will be in place soon. Luckily, the rate of infection in India isn’t that quick due to timely government interventions, just COVID-19’s impact correlates with the economic lag. The lockout must further reduce economic growth by approximately 10 per cent or more. This is likely to cause an effect on agrarian product demand, labour force dislocation, and supply chains disruption. These innovations will have consequences for the government’s societal safety net programmers.

With the current pandemic, livelihoods are at high risk for all the farmers and the masses pampered in this market. COVID-19 has vanished in some nations while it returns in some. Just a short span of the pandemic will leave an everlasting impression on the agriculture sector. The pandemic is going to go away, of course, but we don’t know when and we don’t distinguish the quantity of the negative impact it will bring up economic stakes. Leading writers and researchers have said there could be a food crisis unless action is taken soon to secure the liveliest food supply chains.
The lockdown enforced to control the corona virus pandemic transmission made people confined to their homes while many non-essential businesses shut down shop, leaving thousands of small and marginal farmers hapless as their ball-club-month training and planning to raise a variety of flowers came to a naught. Sources said floriculture farmers prepare a variety of flower gardens from approximately 4,000 to 5,000 function halls, depending on the turn of events and orders. Many farmers turn to horticulture crops– fruit, vegetables and flowers – after the end of the agriculture season for paddy and other food grains. The investment to lift flower gardens in open cultivation is between somewhere between 50,000 and 1 lakh acre and those who put up flowers in about 1,200 poly houses, invest in orchids, carnations and roses anywhere between 3 lakhs and 4 lakhs.

People don’t go to temples with social and religious activities out, and events are put off or offset. Governments of central and state should first give relief to farmers with standing crops, flowers and fruits whatever the scheme may be, he urged. “This is the season of picking that last for three months, guaranteeing their daily earnings and keeping them engrossed. Only now things look down as they have to dump the flowers with no demand and sales”. The floriculture farmers have been going through a rough phase as the government of the state, which provided subsidies for growing flowers in poly houses, has not published over the past two years the dues of some 30 crore to some 40 cores.

1.1 Economic Impact on Agriculture: World

The Food and Agriculture Organization (FAO) globally expects to see changes in food supply and demand. It warns of a “food crisis” worldwide if countries don’t protect vulnerable people from hunger and malnutrition, and de-clog food supply chains. The United Nations has also cautioned that the Covid-19 crisis could kick off global “food shortages”. The World Food program (WFP) has noticed that the Covid-19 crisis is “threatening to involve millions of people already made vulnerable by food insecurity and malnutrition.” The Ebola outbreak in Sierra Leone (2014 -16) led to a major rise in hunger and malnutrition. Small and marginal farmers will also be severely affected if they are unable to go along figuring out their land, earn remunerative product prices and gain admission to markets for purchase or sale. World agricultural prices show signs of a 3rd week increases in March 2020.the increases are marked for rice and straw. On explanation for this increase was the stockpiling of rice and straw households and the restrictions on food exports imposed by different countries.

1.2 Economic Impact on Agriculture: India

First let’s starts the issue of monetary values. It is significant to note that the Indian economy was facing a rise in food prices even before the Covid-19 pandemic started. Food inflation had begun to shift from mid-2019 to levels previously achieved in 2013-14 by January 2020. On the wholesale price indices (WPI) for selected crop classes, available only until February 2020, that while WPI for food items has risen since August 2019, the increase has been driven by a rise in vegetable prices; on vegetables, the price of onions, followed by potato and tomato, has pushed the WPI up. While the price of onions has plummeted, vegetable prices have remained high even in February 2020. According to the RBI’s, 7-the bimonthly monetary policy statement of 27 March 2020: ‘As far as inflation is concerned, the January and February 2020 prints indicate that the actual results for the quarter are 30 bps higher than projected, reflecting the price shock of the onion’. Even so, the RBI’s assessment is that the pressure on food inflation will decline, as aggregate demand is likely to weaken due to the Covid-19 crisis. Food consumer price indices (CPIs) also indicate a similar trend towards a rise after August 2019, with some weakening in January and February 2020.

2. Review of Literature:

Dr. U. Arumugam1 Dr. G. Kanagavalli & M. Mania (2020) in their paper Covid-19: Impact of Agriculture in India put forward that the progressing wellbeing emergency around Covid-19 has influenced varying society. Governments have swung into activities since an extraordinary circumstance was brought about by the Corona virus assault. As ranchers gather the rabbi yield and start preparation for the Kharif season, the
powerful spread of rules and use on the undercoat will be pressed on. Moving on, as ranchers and homestead workers set out to modify their likes and jobs, one predicts many difficulties. This has contributed to a downturn in the world economy, especially in developing countries such as India. Nevertheless, India, with a country-wide lockdown to avoid the health consequences. But agriculture being the country’s linchpin and GDP has been negatively affected with considerable disruption in providing series and cropping decisions for impending agricultural seasons. All of these have a negative impact on the farming group of individuals who are and may suffer severe inimical and mental failure.

S. Mahendra Dev and Rajeswari Sengupta, (2020) in their paper entitled “Covid-19: Impact on the Indian Economy” On the health risk in rural countries, it is true to currently the problem is much more solemn in inner-city areas since of high concentration. Plainly it can spread to 70% of the India’s inhabitants who live in rustic areas. Some migrant workers have already started back to rural expanses. There is a risk of Covid-19 dispersion to the grower, agricultural labourers, workers and others working throughout the food supply chains. The wrap up material used for agricultural merchandise can also carry the virus. The cultivation and rural inhabitants have to be sheltered as societal aloofness will be experienced comparatively less in rural neighbourhoods.

M.N. Waghmare and P.N. Shendage (2019) Economic Analysis of Production of Cut Roses under Poly houses in Western Maharashtra has said in an article in recent years the floriculture industry in India has been in a boom. Seasonal production had harvested the maximum prices in winter, while exports yielded higher prices. Channel-III (Cut Roses producer-importer-Wholesaler-Retailer-Consumer) has proved more effective in export. The farmer should implement the manufacturing technology in such a way as to enable maximum output to be used for marketing in order to benefit from the upper limit prices.

Dilip Vahoniya et al. (2018) Status of Floriculture in India: With Special Focus on Marketing is an article says that floriculture is an age-old agricultural activity in India with a vast potential to generate profitable self-employment among small and marginal farmers. In recent years it has emerged in India and around the world as a profitable agriculture. For each and every producer of floriculture, market searching is an essential principle that encourages them to go to the producer association as it improves the quality and values of the commodities.

3. Objectives:
1. To study on Challenges of the agriculture in Covid-19.
2. To analyse the impact of Covid-19 on Floriculture in India.

4. Methodology:
This research is mostly descriptive in nature. Secondary sources of data have been used for this Secondary data has been collected from different published sources like books, journals, newspapers and magazines, and web sites.

5. India’s flower market withers due to the Covid-19 pandemic: Discussion
The devastating impact of COVID19 on the flower sector in India is visible even in areas where the virus has not affected people. This has been caused by the complete crash of the market as a result of the nationwide lockdown in the wake of the pandemic. The lockdown, in two phases (Phase I - 25 March to 14 April 2020 and Phase II – 15 April to 3 May 2020), restricting all social gatherings, cultural activities, religious foundations and the closing of the hotel and hospitality industry, has destroyed the demand for flowers. The Government of India (GoI)’s decision to partially open retail shops from 25 April 2020 with some restrictions will help restart the supply chain though to a limited extent; thus, some states like West Bengal have allowed flower markets to open for fewer hours. But it is improbable that the demand would build up to pre-lockdown levels.

Commercial floriculture deals with loose flowers, cut flowers and leafy vegetable as well as exotic and ornamentals. The highly perishable nature of the product (every day the value reduces by more
or less 15%) requires quick sales or a cold chain for distant markets. The closure of air and surface transport has brought the flower industry to a stalemate. This shift in supply led to a closure of the local flower mantis, neighbourhood flower shops and flower deliveries, whether through street vendors or online platforms in urban areas. The flower industry in India caters to a huge domestic market and provides supports to workers and farmers in rural areas for several months in a year. As per IMARC, a market research company, the Indian floriculture market was worth INR 18,870 crores in 2019. The market was designed to reach INR 55,790 crores by 2025, with a compound annual growth rate of 19.8% during 2020-2025. Yet, the growth prospects appear quite bleak now, as the sector confronts disaster. The Ministry of Commerce and Industry (MoCI), promotes floriculture as an export-oriented industry. In 2018-19, 19,726.57 MT of flowers worth INR 571.38 crores were exported from India through Agricultural and Processed Food Products Export Development Authority (APEDA). A COVID-19 advisory from APEDA has suggested that Indian exporters could exploit the supply gap of flowers from African countries to European markets and growth. However, the losses from the domestic market have a greater impact since an estimated 99% of the flowers grown in the country are traded domestically. Still, the losses from the domestic market have a greater impact since an estimated 99% of the flowers grown in the country are traded domestically. Referable to the livelihoods involved some of the state governments like West Bengal and Odisha have opened their flower sector despite the lockdown, much before the other states.

On 14 March 2020, the Ministry of Home Affairs (MHA) declared COVID-19 as a "notified disaster" under the Disaster Management Act, 2005. This makes it possible for States to use the State Disaster Response Fund (SDRF) to react to the crisis. GoI contributes 75% of SDRF allocation for general category States/UTs and 90% for special category States/UTs [Northeast (NE) States, Sikkim, Uttarakhand, Himachal Pradesh, and Jammu and Kashmir]. The National Disaster Response Fund (NDRF), constituted under the same law, supplements the SDRF of a state, in case of a disaster of severe nature and provided that enough funds are not available in SDRF. The 15th Finance Commission has approved 28,983 crores for the states for 2020-21, of which 80% is for SDRF. Out of this, States may sub allocate 40% for response and relief, and 30% for recovery and reconstruction. This fund could be utilised to provide relief to the flower farmers and sellers who have suffered losses. According to the Director of the Ghazipur Flower Market Traders Association, flowers worth several crores had to be dumped, since the lockdown came into effect (Hindu Business Line, 10 April 2020). This investment firm could be utilized to provide relief to the flower farmers and sellers who have suffered losses. Many of them even have bank loans for poly houses. As explained by the President of Himachal Pradesh Fruit, Vegetables and Flowers Growers Association, the flower growers are not registered for income support under GoI’s flagship PM-KISAN Scheme.

6. Suggestion:

- Immediate registration of flower farmers under the PM KISAN Scheme (for example, in Himachal Pradesh) should be done to start the direct benefit transfer to these farmers.
- GoI must consider amending the assistance guidelines for agriculture under SDRF/NDRF to provide immediate input subsidy to flower farmers, for deprivation of income from continued disability to both sell produce and maintain present infrastructure.
- Compensation must be immediately provided to the labour affected. Women laborers engaged in plucking and packing must be redressed for the working days they have misplaced, possibly through work under Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) scheme.
- Floriculture has not been a piece of the subsidized agriculture crop insurance. Speciality crops like flowers need protection under Pradhan Mantri FasalBima Yojana (PMFBY).
- Quick damage control is demanded; the ICARDFR has already advised drying petals for full and using Desi roses for gulkand, instead of discarding flowers. Possible opportunities for bio energy from flower plant waste could be
immediately explored; and other ideas for alternative uses could also be invited.

- Not all states/UTs are equally affected; those countries that need priority attention need to be identified. GoI may constitute a task force with interested state governments.
- Depending on the peak season in each region, efforts to rebuild the sector will ask to be put in place well before the seasonal cycles; support for technical and other inputs, like seeds, will be necessary.
- The interim shift away from flower farming to growing vegetables/medicinal plants/edible flowers must be considered. Those willing to transition out from floriculture will need to be supported.

**Conclusion:**

It can be concluded that, the county level in India, the drudgery of floricultural operations that include picking and packing falls mostly on women. Women are also mainly involved in value added activities such as garland making. This suggests the significant gender dimension of the downturn in the sector. Moreover, GoI has been promoting floriculture as a livelihood option for tribal farmers, and small and marginal growers in NE states. As per the Agriculture Census 2010-11, quoted in MoA &FW’s Horticultural Statistics at a Glance, 2018, the total number of holdings practicing floriculture was 8, 97, 077. Out of these 7, 99,709 holdings were marginal (0.5 - 1 ha) and 58,196 were small (1-2 ha) in size. Thus, relief is critically needed for the already marginalised communities, who are particularly vulnerable to financial risk. The Departments of Horticulture in some states are starting to undertake surveys to assess the losses in this sector. A detailed impact assessment of COVID-19 on the floriculture sector is urgently required.

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