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Impact of Covid-19 Pandemic on Dairy Farmers Economic Condition of Sangli District (Maharashtra): A Geographical Analysis

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Abstract:

The COVID-19, virus epidemic also known as the Coronavirus pandemic, is a determined global epidemic of coronavirus disease 2019 (COVID-19) caused by the serious lung disease coronavirus 2 (SARS-CoV-2). Coronavirus is the fifth world largest flu type pandemic since 1918. The novel virus was recognized in December, 2019 that outbreak in Wuhan, China and consequentially it spread all over the world in short period. Symptoms of COVID-19 were found range from unnoticeable to deadly, but most usually include fever, fatigue and dry cough. These symptoms used to change with period, immune system of human and climatic condition. COVID-19 has spread over three phases with new symptoms in every mutation. The initial cases of coronavirus in India were detected on January 30th, 2020 in three towns of Kerala among three Indian medical students who had come back from Wuhan, the epicenter of the corona pandemic. Lockdown was mandatorily declared in Kerala on 23 March. While, the first case of the COVID-19 pandemic, in Maharashtra, was confirmed on 9th March 2020 in Pune, where a couple returned from Dubai tested positive and in the rest of the country on 25th March. Several places in the state where multiple confirmed cases were reported were sealed off to prevent community spread. Islampur, Dist. Sangli, was one of these places. A second wave erupted in March 2021 was much more devastating than the first with shortages of vaccines, hospital beds, oxygen cylinders and other medical supplies in parts of the country. By late April, India led the world in new and active cases. Consequently, India became the first country to report over 400,000 new cases in a 24-hour period on 30th April 2021.

Keyword: COVID-19 Pandemic, Socio-Economic Condition.

Introduction:

The newly discovered corona virus (COVID-19), which was discovered for the first time on November 17, 2019, in Wuhan, China, ended up being a pandemic. The Indian government declared a statewide lockdown on March 24, 2020, lasting until May 31, 2020, as a preventative precaution against the epidemic. This resulted in regulations like quarantines, containment zones, social segregation, travel restrictions, etc. in addition to restricting people's ability to move about the country. Every area of the

Indian economy, including the dairy sector, has been impacted by these policies. Dairy farmers and dairy cooperatives are the most impacted dairy industry stakeholders. In light of this, the current study was conducted to evaluate the financial effects of the COVID-19 epidemic on dairy producers and the dairy cooperative in the Maharashtra State. The pre-lockdown, lockdown, and post-lockdown phases were all included in the study.

India began its vaccination programme on 16th January 2021 with AstraZeneca vaccine (Covishield) and the indigenous Covaxin. Later, Sputnik V and the Modern vaccine was approved for emergency use too. As on 17 August 2021, the country had administered over 550 million vaccine doses. On 21 October 2021, according to the Co-WIN portal, India crossed 100 crore doses (1 billion doses).

Study Area:

Sangli district is located western part of Maharashtra and its boundary touches Satara, Solapur and Kolhapur district. The geographical area of Sangli district is about 8578 Sq.km and Sangli city is the district headquarters of western part of Maharashtra. It is located 16°45´North to 17°33´ North latitude and 73°42´East to 74°40´East longitude at an altitude 550m above mean sea level. Population Sangli of 28, 22, 143 as per 2011 census.

The Sangli district urban population is 25.11%. The Sangli district Miraj and Sangli are large cities. Sangli is located between Warana and Krishna River basin, the small river Warana and Panchganga flows into Krishna. In Sangli district there are ten tehsils, western four tehsils are flood prone area like Shirala, Walwa, Palus and Miraj receiving high rainfall. Remaining six tehsils Atpadi, Jat, Khanapur, Kadegaon, Tasgaon and Kavathemahankal are drought prone areas.

Objectives:

1. To study Geographical aspects of study area.
2. To find out the relationship between geographical location and spread of COVID-19 pandemic in the study area.
3. To analyze pre and post COVID-19 socio-economic condition in study area.

Data Base and Methodology:

The present work is based on primary and secondary data. The primary data is collected through field work with the help of interviews, discussion and schedule with the affected peoples by Corona virus pandemic, Doctors and Staff of Civil Hospitals and Covid centres, NGOs, local political leaders and other relevant people and the authorities.

Highly affected villages by COVID-19 pandemic is considered as an area unit for the present work. The area comprises 10 tahsils in Sangli district, selected 15 % of victims was interviewed from each village, with the

help of random sampling technique.

Questionnaires was prepared to collect data and information about COVID-19 affected region and try to collect oral information from the affected people. Socio-Economic survey is conducted according to the questionnaire. Also, the satisfactory Index is calculated by data which was collected through interview of impacted patients. Random Sampling method are used for selecting the villages to conduct the survey.

The secondary source of data is collected from the Statistical abstracts of districts Sangli, district Socio-Economic review of Sangli District, district census reports, district gazetteers and unpublished record available at Hospitals and COVID-19 centers. Most of the data are obtained from village revenue officers and some of related data are collected from agriculture department, animal husbandry department, district soil department, Panchayat Samiti, Zilla Parishad etc.

Result and Discussion:

The quantity and composition of the bovine population have a crucial role in defining the sample houses' economic status and identifying the breeds that they prefer. 22 out of the 100 sample houses had livestock that was native to the area. Indigenous females' milk was either consumed at home or sold to private customers, whereas indigenous men were mainly raised for draught.

In the Sangli district, 386 crossbred animals were discovered. Of the total, adults accounted for 58.29%, followed by heifers (19.69%) and calves (22.02%). The percentage of in-milk crossbred animals in the Sangli district that were in the early, mid, or late lactation stages was 16.13 percent, 47.47 percent, and 36.41 percent, respectively.

The average amount of milk produced by each animal each day is known as milk productivity, and it directly affects both the overall amount of milk produced and dairy revenue. During the pre-lockdown, lockdown, and post-lockdown periods, farmers were asked to provide their candid assessments of the average milk yield of their animals. The Wilcox paired signed test was used to determine the significance of the variations in milk productivity over the course of the three periods. There was no significant difference ($P > 0.05$) in the milk yield of native cattle and buffaloes in the district during the lockdown and post-lockdown periods.

The milk production of crossbred cattle decreased during the lockout. During the lockdown, milk output decreased by 2.13 percent relative to the pre-lockdown period. Additionally, crossbred milk output decreased to 1.81 percent ($P <0.001$) during the post-lockdown period. Because of this, crossbred milk output differed significantly from pre-lockdown to post-lockdown, even during the post-lockdown phase. Both Bhandari and Lal (2020) and NABARD (2020) documented a decrease in milk production during the

pandemic in their respective investigations.

Total Milk Production in Sangli District in Litres/ Day /Household:

The Wilcoxon paired signed rank test was used to determine the significance of milk production throughout the course of the three periods. The total milk production of native cattle and buffaloes did not differ significantly (P>0.05) during the lockdown and post-lockdown periods. The overall milk production of crossbred cattle fell during the shutdown. There was a 3.47 percent decrease in overall milk output during the shutdown. In addition, during the post-lockdown period, overall milk output increased in comparison to the lockdown phase. Consequently, the amount of crossbred milk produced overall during the post-lockdown phase was not statistically significantly different from the pre-lockdown phase (P <0.001). Chandel et al. (2020) also noted in their study that there will likely be less milk produced because there will be less grain and fodder.

Procurement Price of Milk in Sangli District:

The income of dairy farmers is directly impacted by the price at which milk is bought. The cost of purchasing milk in the Sangli district was reduced by 10% during the shutdown, going from ₹30 per litre before the lockout to ₹27 per litre. It was likewise reduced by 13.33 percent to 26 cents per litre during the post-lockdown period. The decrease in procurement has thus had a negative impact on farmers in the Sangli district.

Financial Effect of Covid On Dairy Farmers:

Due to the COVID-19 pandemic, financial loss to dairy farmers rearing moderate-producing crossbreeds in Sangli district. During the restriction, the net yield per liter of cross milk with moderate production decreased by 52.42 percent compared to the pre-closure. The findings of the study are consistent with Bhandar and Lal (2020), Chandel et al (2020), NABARD (2020) and Singh (2020).

Conclusion:

One hundred respondents from marginal, small and middle classes were selected from five villages of Sangli district using stratified purposive random sampling. The data was collected using the personal interview technique.

• The average marginal, small and medium holdings were 0.540, 1370 and 2820 hectares respectively, while the average total area was 1359 hectares. Farm size is positively correlated with farm investment.

• The cropping pattern was dominated by Ragi, followed by Paddy and Sugarcane, and cropping intensity was inversely related to farm size. The findings of the study will be useful to researchers, policy makers, managers, dairy farmers and dairy farmers to make informed decisions that will benefit dairy farmers and customers.

• Due to the disruption of the supply chain during the shutdown, the costs of

concentrated feed increased. This upward trend in costs continued even after the end of the restriction. This has a direct impact on the net income of dairy farmers. As a result, the government should ensure that concentrates are available without reducing their prices during the shutdown.

• The government should continue to increase the food subsidy provided by DCS. Its removal affects the net income of dairy farmers and thus their well-being. During the lockout, dairy farmers faced several challenges, including the inability to care for their animals. Veterinary visits must be scheduled at regular intervals during the closure.

• Demand for milk, curd, paneer, desserts and ice cream fell during the shutdown. Dairy cooperatives suffer from this. In general, modern technology must be used to increase the demand for milk and milk products. To ensure sustained demand, milk unions should partner with online consumer companies like Zomato, Swiggy and Dunzo and deliver milk and milk products to consumers' doorsteps.

References:

1. Acosta, A.; McCorriston, S.; Nicollo, F. and Venturelli, E. 2021. Immediate effects of COVID-19 on the global Dairy sector, Agricultural Systems, 192(3): 103177.
2. Bewley, J.M. 2010. Precision Dairy Farming: Advanced Analysis Solutions for Future Profitability, The First North American Conference on Precision Dairy Management, 16.
3. Bhandari, G. and Ravishankara, K. M. 2020. Implications of COVID-19 for Indian Dairy Sector, Food and Scientific Reports, 1: 43- 46.
4. Bhandari, G.; Lal, P; Chaudary, U. and Kayamkulangara, H. 2011. Assessing snowball effect of COVID-19 pandemic on Indian dairy sector, The Indian Journal of Animal Science, 91(12): 1011-1017.
5. Anbu, S. 2020. Dairy Cooperatives and Dairy Development in India. Non-farm Sector and Rural Development, Novel Corporation. Chennai, India, 428-440.
6. Jena, P. R.; Kalli, R. and Tanti, P. 2021. Impact of Covid−19 on Agricultural System and Food Prices: The Case of India, Rural Health, Intech open, 243- 254.