Exploring Economic Stress Among Dairy Farmers During COVID-19 In India

MANISHA JAYPRAKASH SINGH[1], PROF NOAMAN KHATIB[2]
[1, 2] *DTSS College Of Commerce*

Abstract*— The COVID-19 epidemic has caused tremendous problems on a global scale, impacting several industries, including agriculture. The purpose of this abstract is to help readers comprehend the financial strain that Indian dairy farmers endured throughout the pandemic. Millions of rural communities in India depend on dairy farming for their livelihoods, making it a vital part of the country's agricultural landscape. Nonetheless, the epidemic caused numerous disruptions in this industry. First off, the dairy industry was badly hit by supply chain interruptions, which made it more difficult to transport and distribute milk and dairy products. Farmers had trouble getting to markets and processing facilities, which resulted in decreased sales and financial losses from spoiling. Second, as customer behavior changed in the face of lockdowns and economic uncertainty, shifting demand patterns appeared. Panic buying first drove up demand, but when buying power declined and markets closed, sales prospects decreased as well, severely pressuring farmer incomes. The adaptations dairy farmers made to these obstacles are also covered in this abstract, including how they improved farm management techniques, explored other marketing options, and diversified their sources of income. It emphasizes how farmers have persevered in the face of extraordinary financial hardship. With the use of qualitative analysis of source data, including farmer surveys and interviews, this study seeks to offer a thorough grasp of the economic pressures that the dairy industry in India encountered during COVID-19. The results will be useful in policy talks about bolstering resilience and providing future-crisis help for farmers.

Index Terms- Dairy farmers, Economic stress, COVID-19, Pandemic impact, Supply chain disruptions

I. INTRODUCTION

Background of the Study: - After appearing in late 2019, the COVID-19 pandemic quickly spread over the world, posing a serious threat to people's health and livelihoods everywhere. The pandemic's consequences were especially felt in India in a number of industries, including agriculture, which depends heavily on dairy farming. In India, small-scale dairy farmers make up the majority of the industry. They often operate in rural regions and make a substantial contribution to both the national economy and rural livelihoods. About 80 million rural households are involved in this industry, which makes it a vital component of India's agricultural environment. This study uses qualitative techniques, including surveys and interviews with dairy farmers in several Indian states, to get deeper into these processes. Through an examination of the actual experiences, obstacles, and strategies of dairy producers during the COVID-19 pandemic, this research aims to offer significant perspectives to stakeholders, politicians, and agricultural professionals. The ultimate goal of the research is to provide information for policymakers who want to improve the dairy industry's sustainability and resilience, especially in the event of future crises.

About dairy farmers: -
In India, dairy farming is extremely important from a socioeconomic standpoint, especially in rural areas where it provides a stable income for millions of households.

Function in Agriculture: Dairy farming plays a significant role in the rural economy of India and is an essential component of the country's agricultural sector. Millions of farmers, particularly small and marginal farmers, receive income and jobs from it.

Livelihood: Dairy farming is a vital source of income for almost 80 million rural Indian households. Numerous of these farmers have small herds of cattle, mostly made up of crossbreeds from the area and indigenous breeds like Gir and Sahiwal.

Production Levels: With a varied production base comprising both organized and unorganized sectors, India is the world's largest producer of milk. Over time, the nation's milk output has increased steadily, satisfying domestic need and bolstering dairy exports.

Small-scale Operations: The majority of Indian dairy farmers own fewer than five animals, and their operations are typically small-scale. In rural areas, this decentralized strategy helps to distribute revenue and create jobs.

The significance of indigenous cattle breeds lies in their capacity to adapt to the local climate and feed availability, which is why these breeds are important to Indian dairy farming. Because of their high milk yield, small-scale farmers frequently favor these breeds.

Obstacles: India's dairy farmers deal with a number of obstacles, such as erratic milk prices, restricted access to veterinary care, seasonal feed shortages, and difficulty obtaining official credit and insurance. The industry is also impacted by concerns with infrastructure and quality control, as well as market instability.

Covid-19 Impact:
Dairy farming was significantly impacted by the COVID-19 pandemic everywhere it occurred, especially in India. The following are a few consequences that have been specifically noted in relation to dairy farming.

Disruptions in the Dairy Supply Chain: One of the pandemic's most immediate repercussions was a disturbance in the dairy supply chain. The movement of milk from farmers to customers and processing facilities was hampered by movement restrictions, lockdowns, and logistical difficulties. Due to the inability to get milk to markets or processing facilities in a timely manner, this resulted in delays, higher transportation expenses, and in certain circumstances, milk spoiling.

Price instability: Changing demand and supply chain interruptions caused price instability for dairy farmers. Farmers' incomes were impacted as some places had price decreases when demand declined or stabilized, while other regions experienced transitory price hikes during the initial phases.

Workforce Challenges: On dairy farms, workforce shortages and logistical challenges were caused by mobility restrictions and health concerns. This had an effect on general farm management, feeding, and milking practices, which in turn affected farm efficiency and output.

Increases in Input Costs: Throughout the pandemic, labor, veterinary care, and animal feed costs were subject to fluctuations. Dairy farmers' production expenses increased as a result of supply chain problems and economic upheavals that impacted input costs and availability.

Significance of the study
In addition to helping to understand the immediate effects, studying economic stress among dairy farmers during COVID-19 in India is important for shaping future agricultural policy, boosting resilience in the dairy industry, and guaranteeing sustained rural development.

II. LITERATURE REVIEW

To Determine the Main Obstacles in Dairy Farming: This goal is to identify and classify the main obstacles that dairy producers must overcome, including financial limitations, environmental issues, and market instability (Reference: Mishra et al., 2020; Singh as al., 2019). Examining the Effects of Climate Change on Dairy Production: This goal looks into how climate change affects dairy farming techniques, such as feed quality, water availability, and heat stress management (Source: Thornton et al., 2021; Sivakumar et al., 2018). To Evaluate Health and Disease Management Issues: This goal entails researching viral diseases, metabolic conditions, and antibiotic resistance issues pertaining to dairy cattle (Reference: OIE, 2021; Dhama et al., 2019). The objective of this study is to examine the adoption and effects of technological innovations, such as robotic milking systems, precision farming, and Internet of Things applications, on the productivity and efficiency of dairy farms (Garg et al., 2021; Yoon et al., 2017). Analyzing the economic feasibility of dairy farming operations, including production costs, price volatility, impediments to market access, and profitability, is the goal of this purpose (Reference: Birthal et al., 2020; Kumar et al., 2018). To Study Policy and Institutional Support: This goal is to assess the institutional support systems—such as insurance plans, subsidies, and extension services—that are currently in place for

dairy farmers (Reference: FAO, 2021; Ministry of Agriculture and Farmers Welfare, Government of India).

III. OBJECTIVE OF THE STUDY

To Evaluate the Financial Impact: The purpose of this objective is to calculate the financial losses dairy farmers suffered as a result of the COVID-19 pandemic-related disruptions in milk sales, price fluctuations, and higher input costs.

To Examine Supply Chain Disruptions: This goal entails looking into how the pandemic's mobility restrictions, logistical difficulties, and market closures affected the dairy supply chain.

To Analyze Changes in Demand and Consumer Behavior: The goal of this aim is to comprehend how changes in consumer demand for dairy products affect the stability of dairy farmers' income and their capacity to access markets.

To Assess the Effectiveness of Government Interventions: The purpose of this objective is to evaluate the ways in which the government has helped dairy producers during COVID-19 by providing loans, relief packages, and subsidies.

IV. METHODOLOGY

Secondary data can be sourced from published research papers, theses, publications, and other sources.

Conversation and Suggestions for Policies Synthesis of results and recommendations for developing policies to improve the dairy industry's resilience Suggestions for future readiness and support systems for dairy farmers experiencing comparable emergencies

CONCLUSION

An overview of significant discoveries and advancements in comprehending financial strain among dairy farmers in India during the COVID-19 pandemic

Concluding remarks regarding the adaptability and resilience of dairy farmers and the future of sustainable development

REFERENCES

[1] References to academic journals, official documents, and data utilized in the research study