

# Prospects And Performance of Milk Production in India: An Analysis

**Dr Suganthi S<sup>1</sup>, Dr Birundha S<sup>2</sup>, Dr Sumathi V<sup>3</sup>**

<sup>1,2,3</sup>Assistant Professor, Department of Economics (SF), PSG College of Arts & Science, Coimbatore – 641014.

## Abstract

India is the world's largest milk producer. Livestock has been playing a major role in the agro-based industries and dairy products are fully produced from the inputs of cattle. The livestock has contributed highest in the production of milk with 209.96 million tonnes in the year 2020 - 2021 and stands first in the world production when compared to their other yields like meat, eggs, wool, leather etc. Over 50% of the dairy industry's revenue comes from the liquid milk segment, where growth is expected to be consistent (6-7%). Additionally, this industry offers prospects for self-employment, notably to women and economically underprivileged populations. Continued investment, innovation, and support from all stakeholders will be vital in further enhancing the sector's productivity, sustainability, and contribution to the overall development of India's economy and rural livelihoods.

**Keywords:** Dairy Industry, Inclusive Growth, Self-Employment, GDP

## Introduction

The world's largest producer of milk is India. With several chances for business owners worldwide, India is called as the "Oyster" of the international dairy industry. The primary goal of the Indian dairy industry is to utilize cutting-edge technologies to better manage national resources in order to increase milk output and milk processing. Dairying has been seen as a tool for social and economic development in India for a very long time. Livestock has been playing a major role in the agro-based industries and dairy products are fully produced from the inputs of cattle. The livestock has contributed highest in the production of milk with 209.96 million tonnes in the year 2020 - 2021 and stands first in the world production when compared to their other yields like meat, eggs, wool, leather etc.

## Global and National Status of Milk Production in India

The consumption of milk and dairy products is rising internationally as a result of growing anti-vegetarianism sentiments, the health benefits of these foods are increasing over non-vegetarian ones. Brazil, India, and the Ukraine are presently the top three exporters of non-fat dry milk products. Due to a

---

<sup>1</sup> Assistant Professor, Department of Economics (SF), PSG College of Arts & Science, Coimbatore – 641014, Mail id: [suganthirajan93@gmail.com](mailto:suganthirajan93@gmail.com)

<sup>2</sup> Assistant Professor, Department of Commerce (BA), PSG College of Arts & Science, Coimbatore – 641014, Mail id: [birundha.sv@gmail.com](mailto:birundha.sv@gmail.com)

<sup>3</sup> Assistant Professor, Department of Economics (Aided), PSG College of Arts & Science, Coimbatore – 641014, Mail id: [ysumathiramesh@gmail.com](mailto:ysumathiramesh@gmail.com)

recovery in global dairy prices, the global market for milk and dairy products is positioned for long-term expansion. An essential reason adding the expansion of the global milk and dairy products market is the anticipated price increase for the majority of dairy products.

With 22% of worldwide milk output, India is the world's top producer followed by The United States, China, Pakistan, and Brazil. From 1970s, South Asia is the main driver of milk production in the developing world. Uttar Pradesh contributes about 18% of India's total milk output, followed by Rajasthan, Andhra Pradesh, Gujarat, and Punjab with respective contributions of 11%, 10%, 8%, and 7%. From 146.31 million tonnes in 2014–15, milk output in the nation increased at a compound annual growth rate of roughly 6.2% to reach 209.96 million tonnes in 2020–21.

### **Contribution of Dairy Sector to India's GDP**

The dairy industry is one of the key rural economic sectors that improves the financial situation of India's 80 million landless, tiny, and marginal farm households. The sector also aids in assuring nourishment for low-income rural households and reducing rural poverty and inequality. It directly employs 80 million dairy farmers and has a 5% contribution to the national economy. The dairy sector is expected to rise by 9–11% in 2021–2022 as a result of a recovery in economic activity, rising per capita consumption of milk and milk products, shifting dietary choices, and increasing urbanisation in India. Over the previous five years ending in 2020, the cattle industry expanded at a Compound Annual Growth Rate (CAGR) of 8.15%. Over 50% of the dairy industry's revenue comes from the liquid milk segment, where growth is expected to be consistent (6-7%). Comparatively speaking, the organised dairy segment has grown more quickly than the unorganised component, which makes about 26–30% of the business (by value).

Additionally, this industry offers prospects for self-employment, notably to women and economically underprivileged populations. 8.4 million small and marginal farmers depend on the dairy industry annually for both their direct and indirect means of subsistence; 71% of these farmers are women, illustrating the sector's critical role in the empowerment of women and inclusive growth. Greater expansion of the dairy industry in emerging nations can boost women's educational success and reduce gender disparities.

### **Statement of the Problem**

Currently, poor productivity per animal is impeding the development of the dairy business. Despite having the lowest production per animal, India generates the most milk globally. Low productivity is a result of ineffective cow and buffalo breeding programmes, a lack of extensions, and bad dairy industry development management. As a result, it is important to assess whether the current milk output can increase at the same rate in the face of challenges such as a lack of infrastructure for milk collection, transportation, and processing, ineffective milk marketing facilities, and a lack of scientific animal feeding practises.

### **Objectives of the Study**

- To examine the production of Milk in All India level.
- To study the growth of export performance of milk from India.

## Review of Literature

**Kumar and Ansari** (2016) explained about the Export Performance of Dairy Industry in India. The study examines the export results of the Indian dairy industry and the behaviour of significant importers. The tools used in the study were trend line and compound annual growth rate. The literature review is based on research papers, theses and journals and used secondary data. India is the world's greatest milk producer, contributing 15% of all milk produced worldwide. However, it turned into a net importer in 2010–12 as a result of the swift rise in domestic milk consumption. In 2011, the dairy market in India was valued at \$48.5 billion. It is estimated that with a compound annual growth rate of 16%, it will reach USD 118 billion in 2017. Due to the high production, low exports, and rising demand for dairy products, it is crucial to comprehend and analyse the most current developments in exports and imports in the dairy industry in order to identify potential export growth strategies.

**Naik and Bayineni** (2019) analysed about Growth and Performance of Indian Dairy Industry. India provides equal opportunity for domestic and foreign investors to invest in dairying with the goal of serving home and export markets. The secondary data were obtained from Department of Animal Husbandry and Dairy, Ministry of Agriculture, Annual Reports of Basic Animal Husbandry Statistics. A simple statistical tools like Percentage and Annual Growth Rate were used. The production of cattle increased by 77% over a 17-year period, from Rs. 139 billion in 1986 to Rs. 1209 billion in 2003. The milk production has increased on an annual percentage basis.

**Khongsai** (2020) concentrate on Growth and Development of Dairy Industry in India. The objective of the study is to know the nation's milk production and consumption patterns, as well as milk import and export trends. The secondary data were analysed with the help of simple statistical tools. The availability of milk per capita has significant increase with 120 gm per day per person in 1960 has increased to 307 grams per day per person in 2013–2014, and then to 359 grams per day per person in 2014–2015. The small farmers should be given discounted electricity rates, small business owners should be given affordable access to milking machines, training in feed management and value addition for milk products. It helps us realise our goals of not only producing more milk but also raising more livestock.

## Research Methodology

The methodology that has been followed to collect and to analyse the data were presented.

### ➤ Nature of Research Design

The study would analyse the Milk Production, Per Capita Availability of Milk in India and its states and export of milk from India. Hence, the study is both analytical and descriptive in Nature.

### ➤ Sources of Data

The Study was based on Secondary data. The required Secondary Data were collected from the published sources like Department of Animal Husbandry & Dairying (DAHD), The Agricultural and Processed Food Products Export Development Authority (APEDA) & Food and Agricultural Organisation.

### ➤ Period of Study

The study covered a period of 19 years. (i.e 2000-2001 to 2018-2019).

### ➤ Method of Data Analysis

The collected data were analysed with the help of Annual Growth Rate (AGR), Compound Growth Rate (CGR) and Trendline analysis.

## Analysis and Discussion

In the recent years, the India's Milk production has risen at a quicker rate. A brief analysis was done on the growth of milk industry of India in terms of production, per capita availability of milk.

### ➤ India's Milk Production

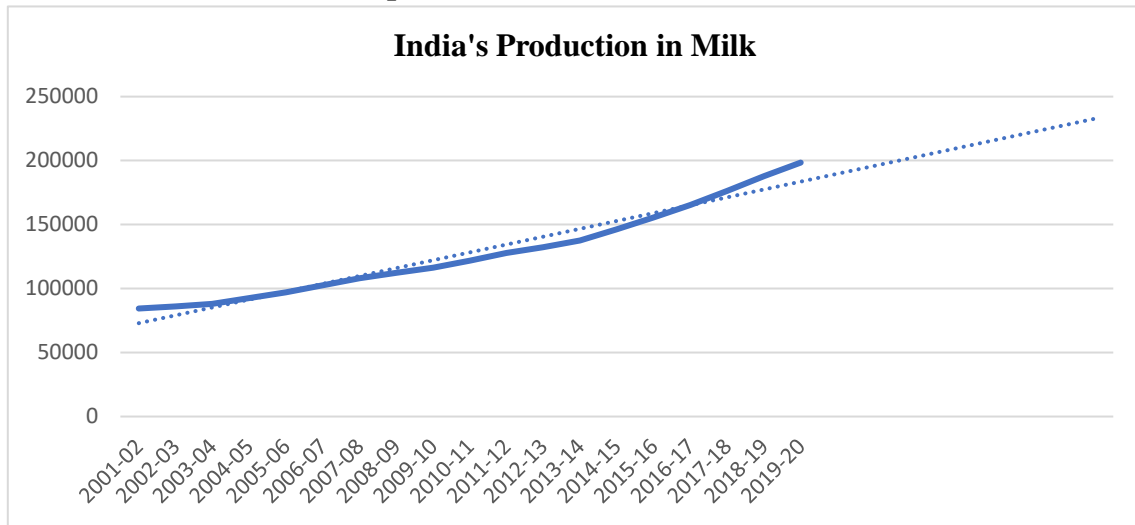
For the table 1, the Annual Growth Rate of production of milk is steadily increasing at a slower rate every year and there is no decline in it due to its demand all over the world as well as domestically, since the rate of population is also increasing every year which leads to the greater consumption and greater wants. Also, there is an increasing trend for the production of milk. The production of milk can be increased by increasing more nutrient supply to livestock.

**Table 1 India's Production in Milk**

Year	Production (In 000 Tonnes)	AGR
2001-02	84406	-
2002-03	86159	0.02
2003-04	88082	0.02
2004-05	92484	0.04
2005-06	97066	0.04
2006-07	102580	0.05
2007-08	107934	0.05
2008-09	112183	0.03
2009-10	116425	0.03
2010-11	121848	0.04
2011-12	127904	0.04
2012-13	132431	0.03
2013-14	137685	0.03
2014-15	146314	0.06
2015-16	155491	0.06
2016-17	165404	0.06
2017-18	176347	0.06
2018-19	187749	0.06
2019-20	198440	0.05

**Source:** Basic Animal Husbandry Statistics, DAHD & GOI

**Graph 1 India’s Production in Milk**



➤ **Exports of Milk from India**

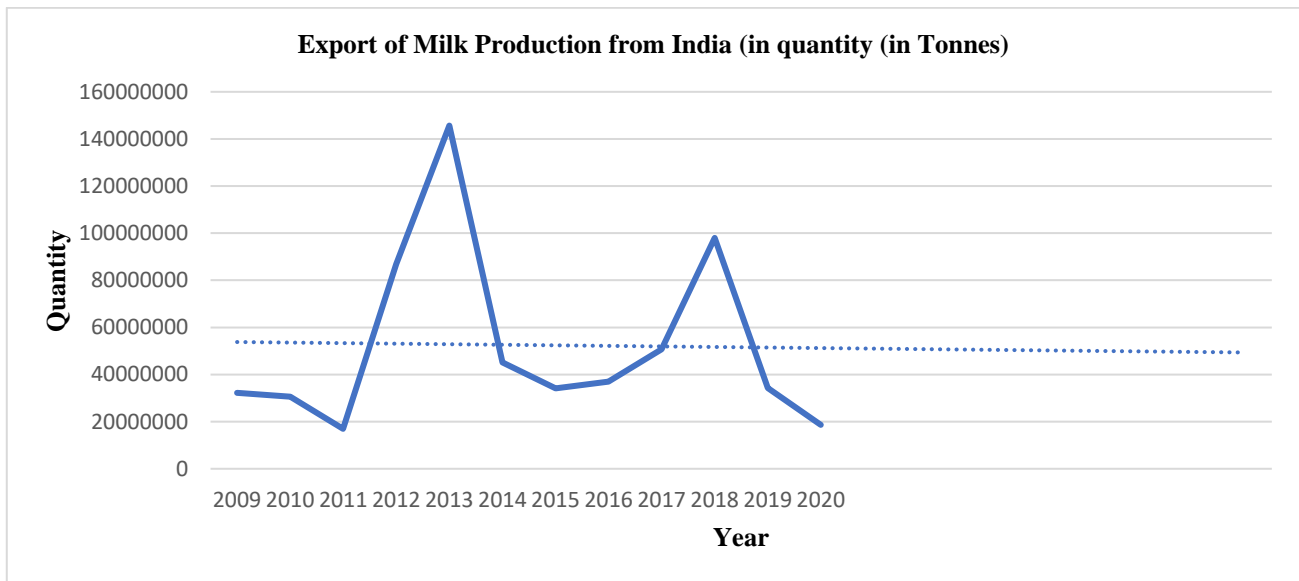
The total export of milk has shown fluctuations over the years and also there was a highest export during the year 2012. Over the years, there is a change in export value of 19.57% between 2009 and 2014. The amount of milk exported from India increased 177.32% since 2010 and 75.4% of India's total milk exports were equal to the top 5 milk-importing nations altogether. There are fluctuations in the quantity as the trendline shows a steady decrease in it. The value of exports of milk from India has increased from 70.67 USD Million in 2009 to 60.03 USD Million in 2020.

**Table 2 Total Milk Export from India**

Year	Quantity (in Tonnes)	AGR	Value (USD Million)
2009	32233339	-	70.67
2010	30579517	-0.05	86.55
2011	16950390	-0.45	44.34
2012	86865139	4.12	240.79
2013	145655850	0.68	498.73
2014	45162217	-0.69	163.91
2015	34138339	-0.24	106.57
2016	36950889	0.08	107.25
2017	50685137	0.37	127.54
2018	98036330	0.93	195.98
2019	34240340	-0.65	94.62
2020	18651290	-0.46	60.03

**Source:** Basic Animal Husbandry Statistics, DAHD & GOI

**Graph 2 Total Milk Exports from India**



## Conclusion

India's milk production has seen impressive growth and has become a crucial component of the country's agricultural economy. Dairy industry is one of the top most growing industries that contributes highly to GDP of the Indian economy through exports. There is no rapid growth in dairy sector in the recent years but we can see a substantial amount of growth in the past decade as India has changed from an acute milk shortage country to leading producer of milk all over the world. The concerted efforts of farmers, cooperatives, and the government, along with advancements in animal husbandry practices, have contributed to India's position as the world's leading milk producer. The performance rate of dairy industry is also positive as imports showed a negative growth equal to half of the positive growth in exports, which shows that India is a net exporter of dairy products. Continued investment, innovation, and support from all stakeholders will be vital in further enhancing the sector's productivity, sustainability, and contribution to the overall development of India's economy and rural livelihoods.

## References

1. Mario Gabriele Miranda and Ramachandran (2014), "A Study on the Dairy Industry in India", Indian Journal of science and Technology, 7, June, pp. 1-2.
2. Shiv Kumar and Kashif Ansari (2016), "An Analytical Study on the Export Performance of Dairy Industry in India", International Journal of Research, January, 4(1).
3. Balaji Naik B and Srinivasulu Bayineni (2019), "Growth and Performance of Indian Dairy Industry: An Analysis", Think India Journal, 22(35), December, pp. 1874 – 1885.
4. Lalgoule Khongsai (2020), "Growth and Development of Dairy Industry in India", International Journal of Recent Technology and Engineering, 8(5), January.
5. Dharendra Kumar (2020), "An Overview of Dairy Pro Industry and its important Role in the Country's Socio-Economic Development", International Journal of Advanced Research in Commerce, Management & Social Science, 3(3), July-September.