



A PAPER ON

**DEVELOPMENT
OF DAIRY
SECTOR**

OCTOBER, 2020

PUBLISHED BY
LETZ DREAM FOUNDATION

This paper explores the existing situation of the dairy industry and then moves on to analysing the challenges faced by this sector. It attempts to explore the possible ways through which the industry could bolster its growth. The paper tries to explore the importance of the role of technology and private players in the dairy industry.

THE INDIAN DAIRY INDUSTRY

According to statistics provided by the Department of Animal Husbandry and Dairying, India ranks first among the world's milk producing nations since 1998 and has the largest bovine population in the world. Milk production in India during the period 1950-51 to 2017-18, has increased from 17 million metric tonnes (MMT) to 176.4 MMT as compared to 165.4 MMT during 2016-17 recording a growth of 6.65 %.

As per Food Outlook, 2018 published by FAO, world milk production increased from 800.2 MMT in 2016 to 811.9 MMT in 2017 at a growth rate of 1.46%. The per capita availability of milk in the country which was 130 gram per day during 1950-51 has increased to 374 gram per day in 2017-18 as against the world estimated average consumption of 294 grams per day during 2017. This represents sustained growth in the availability of milk and milk products for our growing population.

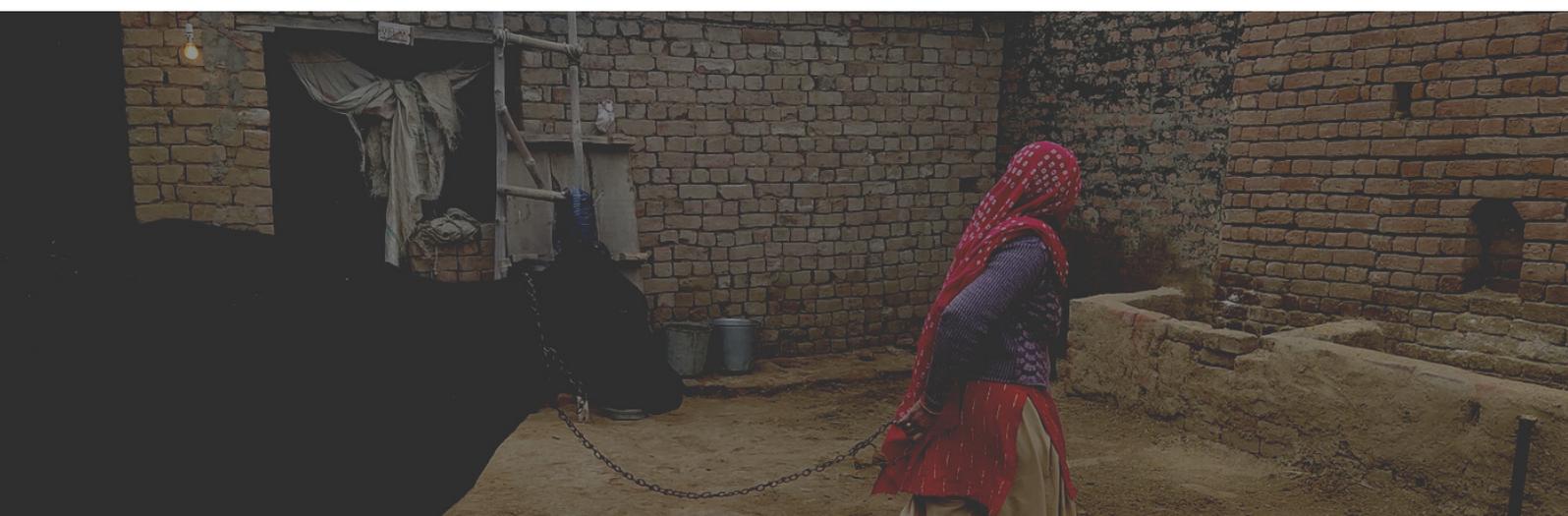


| Countries | Production (in million tonnes) | % of global production |
|---------------------------------|--------------------------------|------------------------|
| India | 176.27 | 21 |
| United States | 97.76 | 12 |
| Pakistan | 44.29 | 5 |
| China | 34.87 | 4 |
| Brazil | 33.74 | 4 |
| Germany | 32.69 | 4 |
| Russian | 31.18 | 3.7 |
| France | 25.28 | 3 |
| New Zealand | 21.37 | 2.5 |
| Netherland | 14.54 | 1.7 |
| Total global production* | 827.88 | 100 |

*including all the countries. all figure from 2017. source: FAO

For lakhs of rural families, dairying has become an important secondary source of income and has assumed the most important role in providing employment and income generating opportunities particularly for marginal and women farmers. Most of the milk is produced by animals reared by small, marginal farmers and landless labourers. Of the total milk production in India, about 48% milk is either consumed at the producer level or sold to non-producers in the rural area. The balance 52% is marketable surplus available for sale to consumers in urban areas. Out of marketable surplus it is estimated that about 40 % of the milk sold is handled by the organized sector (i.e. 20% each by Co-operative & Private Dairies) and the remaining 60% by the unorganized sector. About 16.6 million farmers had been brought under the ambit of 1,85,903

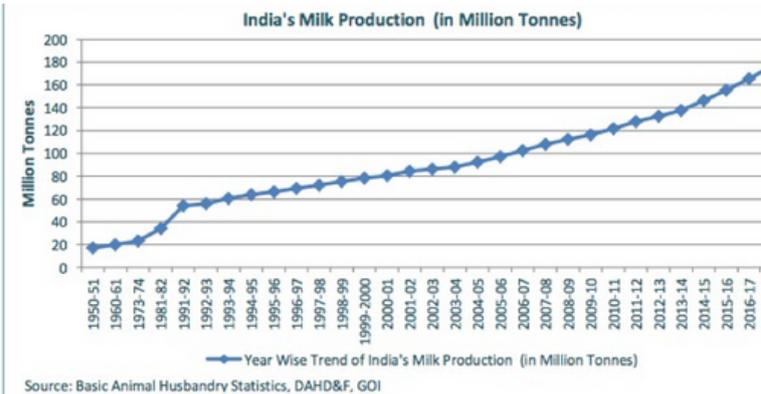
village level Dairy Cooperative Societies (DCS) up to March 2018. According to the Department of Animal Husbandry and Dairying, better procurement prices by dairy co-operatives led to an increase of 11% in milk collection by them. Government data states that the dairy cooperatives have procured a daily average of milk about 475.6 lakh kg per day (LKgPD) during 2017-18 as compared to 428.7 lakh kg procured during 2016-17. The sale of liquid milk reached 349.6 Lakh Litre per day (LLPD) during 2017-18 recording a growth of 6% as compared to 331 LLPD marketed during 2016-17. Women members of the DCS are also being encouraged to assume leadership roles. As on 31.03.2018, the total number of women in dairy cooperatives across the country was 4.9 million in 32,092 women DCS which is 29.5% of total farmers.



As per National Account Statistics 2019, the value of output of milk in 2017-18 was Rs 7,01,530 crore (at current price) surpassing total value of output from the top two food grains - Rs 27,22,21 crore (paddy) and Rs 1,73,984 crore (wheat). India’s agricultural and allied sector’s output value is estimated at around Rs 28 lakh crore which implies that milk’s contribution is more than 25% of the total value of output. The Figure below shows the year wise trend of India’s Milk Production from 1950-51 to 2018-19.

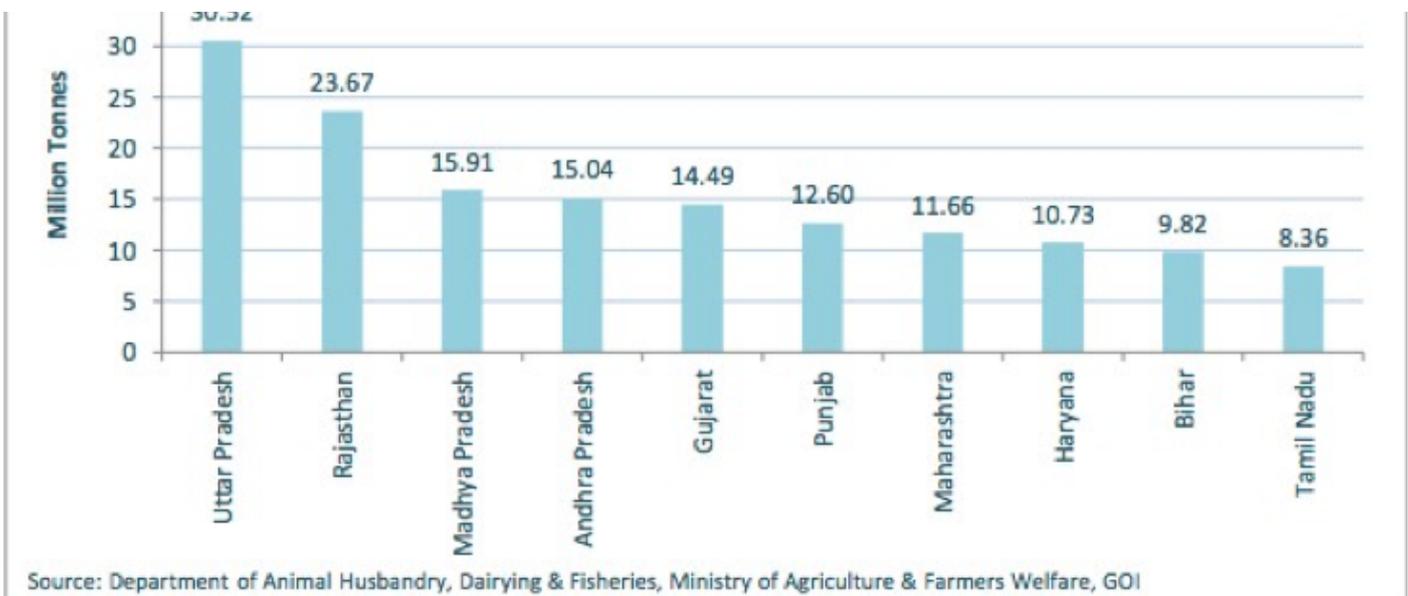
tonnes of milk production in 2018-19, respectively. In the interest of livelihoods and economic well-being of the milk producers, it is essential to provide rural milk producers with greater access to the organised milk processing sector by increasing their coverage.

KEY CHALLENGES AND WAY FORWARD



This sector provides livelihood opportunities for large section of population both in urban as well as rural areas. In order to sustain the dairy sector, it is vital to ensure that farmers continue to get lucrative prices for the milk sold. The government also needs to provide appropriate policy support to domestic dairy industry for boosting its export potential. India's export of dairy products was 51,421.85 million tonnes with a value of Rs. 1,341.03 crores/ 186.71 million USD during the year 2019-20. Skimmed milk powder, packaged products, butter, ghee, cheese, cream and curd constitute majority of the milk products exported from India.

The figure below shows the major milk producing states of India in 2018-19 with states of Uttar Pradesh and Rajasthan topping the list with 30.52 million tonnes and 23.67 million

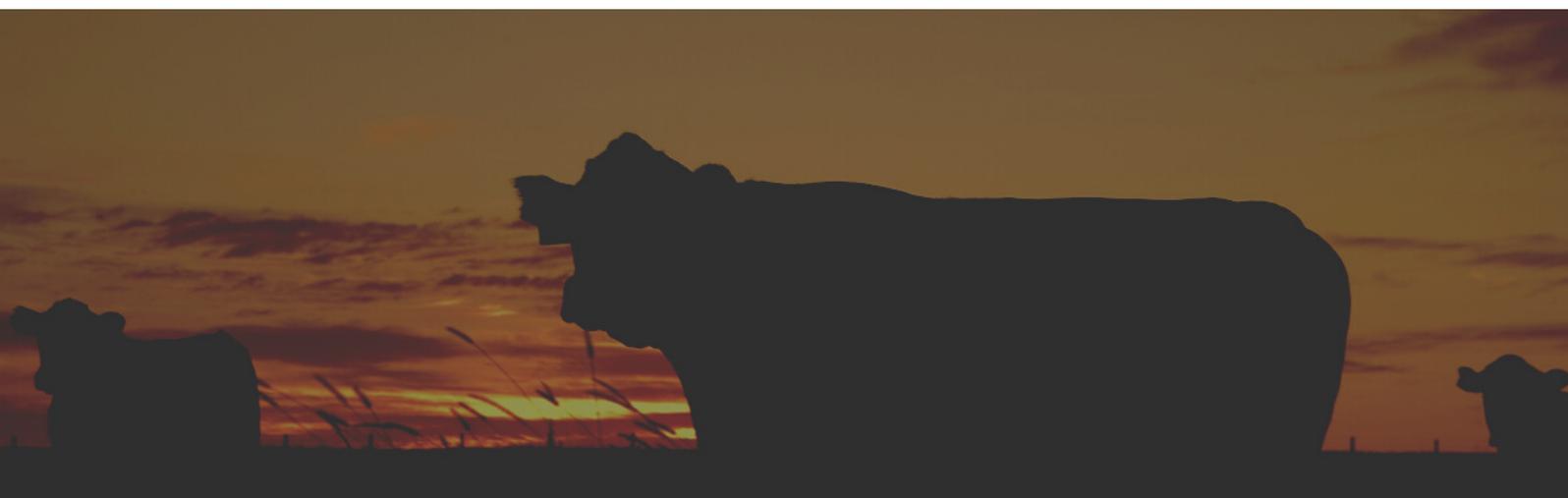


Nations like EU and USA have been giving huge subsidy support to their dairy farmers for exports. As per estimates, USA provides subsidy of over USD 12 billion and Europe gives support of about USD 15 billion to their dairy farmers under Export Subsidies and Assistance programmes from time to time. Other developing countries also provide additional support by providing buffer stocking storage support, or additional markets.

In India, there is no such support provided to dairy farmers thus making them uncompetitive in global trade. India's Dept of Animal Husbandry & Dairying reports US Dept of Agriculture's estimates that out of India's total milk production of 190 MMT, nearly 55% milk (105 MMT) originates from buffalos which have an average milk yield of 6.2 Kg per day. The milk from the water buffaloes holds higher fat content, which fetches higher prices since milk prices are determined by volume, fat, and solids-not-fat (SNF) content. Given this fact, one of the suggestions given in a FICCI working paper talks about how the government could support exports by providing technological and financial supports for production of indigenous handmade sweets like Gulabjamun and Rasgulla as potential packaged products for exports. Both digital and traditional media platforms can be utilised for sustained communication campaign.

As a part of the implementation action plan of Agriculture Export Policy, 2018, the Government had announced the scheme for providing financial assistance for transport and marketing of agriculture products to boost exports of such commodities to certain countries in Europe and North America. Given the huge potential of dairy business in terms of increasing India's export basket, the Government may look forward to extending this scheme to the dairy products as well.

Another key challenge is that India has been identified as one of the three countries with risk of Foot and Mouth Disease (FMD) and, therefore, export conditions for milk products from India are rigid. For example, exports will be allowed only if such dairy products have undergone, or been produced from raw milk that has undergone heat treatment involving a sterilisation process, ultra-high temperature (UHT) treatment and various high temperature short-time pasteurisation treatments (HTST). The Government has taken active measures to eradicate FMD costing it nearly 2 billion USD. Once India is declared free of FMD by the Paris based intergovernmental World Organisation for Animal Health (OIE), Indian dairy and meat exports will not face non-tariff barriers. This can open up export markets for Indian dairy and meat.

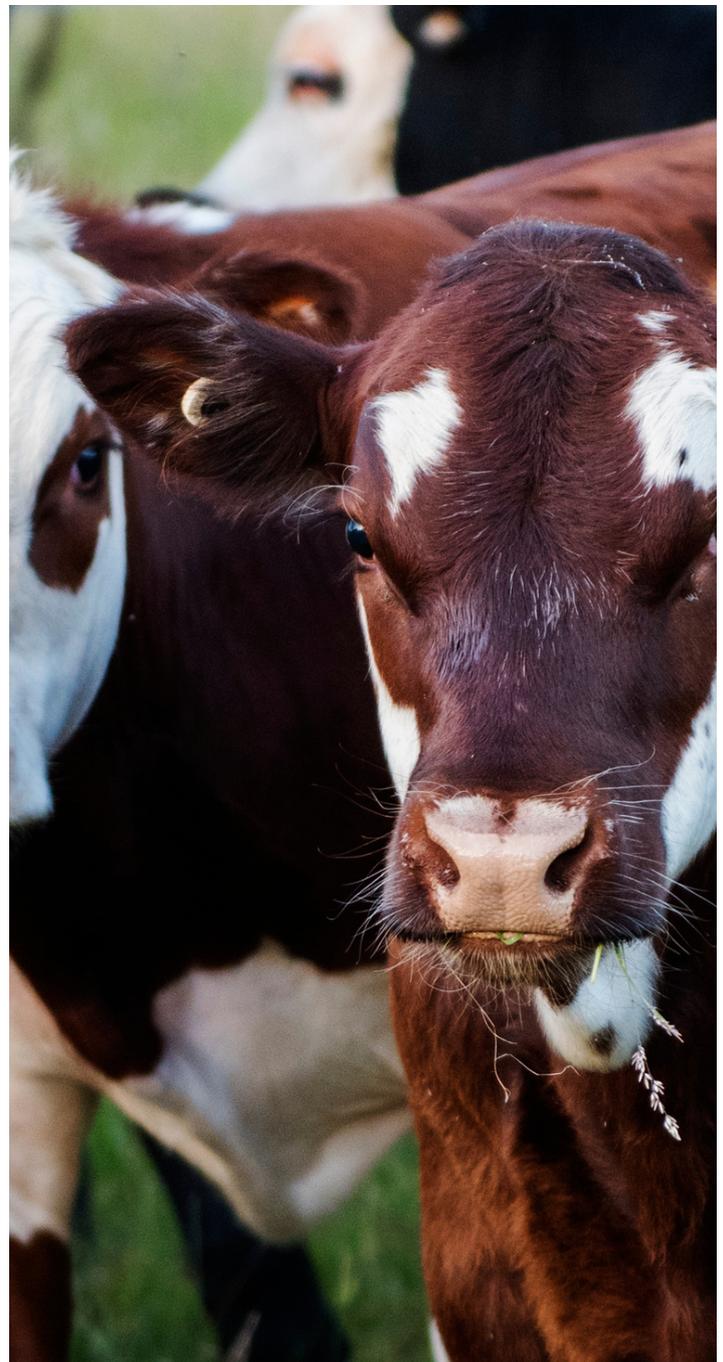


There is a huge potential for increasing dairy exports from India which can be explored by providing proper financial incentives, lower cost of doing business and market support to boost exports. Further, stable policy framework from the Government with due impetus on dairy sector will allow all stakeholders to build business models with medium- to long-term plans, creating a strong USP for an Indian dairy export product.

The demand for milk and milk products in India is increasing very rapidly because of urbanisation, convenience demanded by consumers and shifting of consumers from loose to packaged dairy products. The dairy sector is currently growing at around 10-12% annually. Based on estimates of population growth and increase in urbanisation for the next four decades, it is anticipated that India needs around 600 million tonnes of milk per year to fulfill the demand for milk and milk products. This means that India's milk production needs to grow at around 3.2% CAGR for the next 40 years. The demand for milk has been rising not only due to increase in per capita consumption, but also from enlargement of 'milk consuming population base'.

According to NITI Aayog's working paper on demand and supply projections towards 2033, the growth in bovine population has contributed towards a significant increase in milk production in the country. The livestock sector is exposed to a number of constraints. Predominant are low productivity arising out of diseases, chronic shortages of feed & fodder, large population of unproductive cattle, absence of effective extension system, low health care, immunization and hygienic programme, lack of cold chain logistics, unorganised marketing, etc.

Another challenging area for dairy development has been that while availability of fodder (dry) and feed has increased significantly in recent years, the increase in green forages has been negligible. The deficit of dry fodder, concentrates and green fodder is estimated at 10%, 33% and 35%, respectively. This deficit is likely to widen to 11%, 35% and 45%, respectively by 2020- 21.



There is a lack of awareness about health, nutrition and farm management in the dairy sector. Although, breed improvement has been continuously taken up since the launch of Operation Flood, knowledge dissemination hasn't happened effectively with livestock owners. As a result, milk yield per cow or buffalo is much less than potential yield from current breed.



With the series of measures being taken by the Government as well as growing role of private sector in dairy development, India is expected to sustain its growth in milk production and milk processing in the coming decades. However, the critical issue facing the dairy sector is how to bring down cost of milk production through investment, to boost productivity and also explore possibilities of increasing dairy products exports. The Indian dairy industry's future lies not only in increasing processing capacities, but also in making its raw material supplier, the farmer, a cost-efficient and globally competitive producer. The role of private sector in developing an efficient dairy value would be critical, as India aims at doubling farmers' income in the next few years.

It is estimated that additional capacity of 75 lakh litres per day and milk processing capacity of 12.5 crore tonnes per day can be augmented with an investment of Rs 5,000 crore. The transparent payment system and modernisation of the procurement process are key drivers for organised milk marketing infrastructure and can be achieved by installing Automatic Milk Collection Stations and Bulk Milk Cooling Units, respectively. The modern procurement process will also aid hygienic milk production, boosting state efforts to promote export of dairy industry.

It is safe to assume that policies must become more market oriented. The adoption of appropriate technologies for production, procurement, processing and marketing is an important aspect of dairy development. The future of dairy in India hinges on modernising infrastructure and giving the sector a technological facelift.

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We hereby declare that this paper is an autonomous work. All sources used have been indicated as such. All texts either quoted directly or paraphrased have been indicated by in-text citations. Full bibliographic details are given in the reference list which also contains internet sources containing the respective URL. In case of any queries, kindly write to info@letzdream.org.