CATTLE AND DAIRY DEVELOPMENT IN INDIA

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Abstract

Agriculture sector is that the main financial gain supply for Indian rural economy. in step with "Indian whole equity foundation" 58% of Indian population depends on agriculture sector for his or her livelihood. within step with Central Statistics workplace (CSO), agriculture and its allied industries including livestock, Agriculture, Fishery, and Forestry was tributary around 15% within the total Indian gross domestic product for 2015-16 and expected 20.2 in 2020-21.

Key word: Cattle, Dairy, development, India

1. Introduction

The populace of cattle in India exceeded 305 million in 2021(Expected). The number of cattle in the world exceeded 996 million, with India having the highest number of cattle that year, followed by Brazil, China, and the United States.[1]

Cattle populations in India

2016	2017	2018	2019	2020*
301	301.4	301.9	302.7	303.2

cattle anxious are one in every of the oldest occupations of India. Roots of cattle raring are often trace back from Indus natural depression civilization. Archaeologist has found many Indus valley civilisation scripts, seals and pictures that have cattle raring descriptions. Cattle raring are an important secondary source of income for the families and people living in rural India. Many small farmers, Landless farmers, Women and Nomads livelihood is fully dependent on cattle raring. According to Hindu religion cattle like Cow has its religious importance. After the Independence considering the economical and religious importance of cow Indian government has ban cow slaughters in India. This entire factor has supported sustainable growth in population of Cow and buffalo in India.

[1] **https://www.statista.com/statistics/1181408/india-cattle-population/**

2. Indian scenario

Agriculture and Allied sector to GDPS'

Year	Percentage Share
2018-19	17.6
2019-20	18.4
2020-21	**20.2* (Expected)**

As per nineteenth farm animal census 37.28% of livestock population are cow. Cow breeds are distributed among three main category indigenous breed, exotic breeds, and cross breeds. According to 19th census there are about 79% cow population belong to indigenous breed. There is an about 37 cow breeds belong to Indian indigenous breed. Many breeds were formed from cross breeding of Indian homegrown breeds and foreign tropical breeds[2]. Cross breed and tropical breed grouping are one the high yield group. Based on 19th livestock census there are an about 21% percent of total cows fall in this category. This livestock census shows that from total livestock 21.23% of livestock population are buffalo and 13 distinct native buffalo breeds survive in India.

As per National dairy development board India has seen the combine cow and buffalo population growth of 3.5% annually. Among the Milk producing all countries India appreciates first place in the Milk production later 1998. As per USFDA Foreign Service Gain Report 2017 India has population of 303.4 million cows and buffalo. Indian milk making growth has outstripped world per capita milk production norm. World has shown per capita milk production of 293.7 gm / day in compared to world production. India has increased per capita milk production from 130 gm/ day in 1950-51 to 322 gm/ day in 2014-15. India has shown robust and sustained growth in both cattle population as well as in milk production[3].

3. Challenges of Indian Dairy Farms

India is the world largest producer of milk. India overlooks about 13% of world milk manufacture and India spend about its 100% of making. Milk is a inexpensive source of protein for vegan populace living in India[4].

A. High cost of milk production

Indians need to reduce milk production costs. The main justification for the high-level production costs is that the standard milk yield of Indian cows is 987 kg / year. Therefore, farmers in other countries like Israel spend only one-fifth of their spending compared to Indian farmers. Israeli cows accomplish such high milk yields by preventing high fat substance. In that case, Israel's per capita obese production is also greater than

[2] (Ashok K. Angurana, 2013)
[3] (USDA Foreign Agricuture Service, 2016)
[4](Dr K.G. Karmakar & Dr G.D. Banerjee, 2016)

in India. In India Gujarat have Rs. 29.5 highest cow milk price per litre. Share in India's production Rajasthan has highest contribution with 12.6 %.

State	Price per litre (cow milk)	Share in India's production (%)
Gujarat	**29.5**	**7.7**
Karnataka	**27.5**	**7.4**
UP	**25.6**	**17**
Panjab	**25**	**6.8**
MP	**25**	**8.1**
Rajasthan	**23.6**	**12.6**
Maharashtra	**23**	**6.3**

B. High cost in milk handling and marketing

Milk handling	%
Consumed locally	46
Unorganised sector	34
Co-operative sector	10
Private sector	10

Source : Department of Animal Husbandry, Agriculture ministry

In India, dairy penetration is much lower. The majority of the milk is collected by private participants and marketed to private dairy farms or other channel. Milk runs through with several levels before moving the sterilization plant for dairy manufactured goods. In Gujarat, cooperative dairy farms buy 1 litre of milk from dairy farmer at a price of 25-28 rupees / litre. Due to the high cost of milk processing, these dairy products sell milk to end consumers at a price of 48-52 rupees. Nevertheless, in attendance are good ways to decrease the number of delegates that manage milk and reduce processing costs, which can considerably decrease the selling cost of milk.

C. Poor quality milk due to unhygienic milk handling

Dairy products in India are often rejected abroad due to unsanitary milking. Milk contains many microorganisms. Inadequate property in India is due to weak animal wellbeing, unclean water & food, and farm impurity.

4. SWOT analysis

Strengths

- The massive livestock population of the nation could grow up to be a crucial asset for the country and a sustainable livestock making system will continue to boost Indian economy.
- Such as the milk quantity of animals is low down, nearby is a considerable scope for development of the milk production.
- Milk utilization in India is the part of the dietary program irrespective of the territory and likely to rise constantly.
- Indian dairy husbandry succeeds largely on crop deposits and agricultural derivatives keeping the response costs low. Labor cost is also low producing the industry somewhat cost viable.
- Indian dairy farmers are not promoted, and if the worldwide dairy marketplace opens after the WTO negotiations, our goods will be competitively estimated.
- Mostly dairy farms are in the community and collaborative sectors, and several are in the privileged sector.
- Now highly skilled technical workers are available in India.

Weaknesses

- Even though breeders have considerably improved livestock throughput, the dairy production system in many segments of the country is still controlled by low-yielding livestock.
- Weak conditions and inaccurate power supply continue a major question for acquiring and supplying excellent quality unprocessed milk.
- Maintaining the frozen chain is still a major limitation.
- Most makers ignore systematic dairy farming, clean milk production and value chains.
- Seasonal alterations in milk production shapes, regional differences in milk supplies and variety-particular variations in the quality of milk received by dairy.
- Deficient comprehensive and consistent data on milk manufacture, influence studies are practically non-existent

Threats

- Excessive feeding pressure on marginal lands and small communities has led to almost complete land degradation.
- Uncritical crossbreeding to increase milk yield may lead to the departure of valuable native kinds.
- The recognized dairy industry controls only 15% of milk making.

- Farmers are even now innocent of characteristic constraints, including biologic and organic impurities as well as antibiotic sediments.
- Distributors even now operate a very larger section of the milk source.
- Supplying characteristic food components, such as sprinkle, blackstrap molasses, etc.;
- The global companies can lead to the recreation of a large portion of milk to value-added products.
- A comparable economy is growing thanks to contaminated liquid milk including artificial milk in some containers that need to be saved from the bud.

Opportunities

- Market growing will generate enormous prospects for work and self-service.
- The economy is growing at about 8% of GDP.
- Dairy demand is income flexible.
- Considerably improved export capacity for regional and western dairy products.
- Opening global markets opens prospects for by-products.
- Real time ERP implementation in dairy sector.

5. Conclusion:

India has robust village level milk cooperative structure. This cooperative was formed by small farmers unions that support milk collection activity. Farmer are also facing many issues like deteriorating animal health, less gene pool, high operating cost etc. has forced farmer to sell its cattle and shift to other income sources. To improve cooperatives governance, increase transparency and restore framers trust, milk cooperatives are moving towards technology inclusion. Milk cooperatives are using ERP system technology to deal with the organization worked. Through ERP application cooperatives are considering improving their collective governance. ICT technology like IOT, GPS, RFID etc. will help cooperatives in getting real-time data at very low cost.

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