

PROBLEMS OF THE DAIRY INDUSTRY IN INDIA AND GOVERNMENT POLICIES FOR THEIR SOLUTIONS

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Abstract : Dairy farming is an important source of employment and income for small, middle class, landless farmers and agricultural laborers. It is also an important option for the entire world facing the challenges of food security. Commercial dairy farming is playing a vital role in the economic development of the rural peoples. For a country like India necessary conditions exist for the dairy industry. It can also prove to be a better employment option for a large working youth population. But, at present, many problems exist for animal husbandry and dairy industry which needs to be redressed. For this, efforts should be made to develop it with a better policy and monitoring mechanism. Present study is concerned with the problems of the dairy industry in India and government policies for their solutions to improvement their condition.

Keywords : Dairy Farming, Dairy Industry, Gokul Gram, Bovine Breeding, White Revolution, Operation Flood.

Introduction

Since ancient times, animals have played a very important role in the development of human civilization. Even in the present era of modernization, we depend on animals for material things like milk, curd, butter, cheese, beef, eggs etc. In fact, an important part of our food system is based on animals. Livestock is a cheap and simple means of coping with the economic crisis, in the face of increasing environmental pollution and global climate like famine, floods etc. In an agrarian country like India, due to the hugely increasing population and agriculture in the dwindling agricultural land, animal husbandry can become a good support for the farmers, that they can solved their economic needs.

Dairy farming is an important source of employment and income for small, middle class, landless farmers and agricultural laborers. Dairy farming is a milk business as well as fertilizer for land and enhances fertility of farms. India is a world leader in livestock. India's milk production is around 141000 lakh tonnes which is estimated to increase to 220000 lakh tonnes in 2025. There are approximately 170,000 dairy cooperative societies in our country in about 218 milk unions with about 16 million producer members who collect about 42 million kilograms of milk daily and sell 32 million liters of milk per day. The total processing capacity of these dairy cooperatives is more than 6.7 million liters per day and the handling capacity is about 1652 million tonnes per day (MDPT). Milk business is one of the oldest industries in our country. Nowadays, the dairy industry is one of the most attractive sectors in the world, because demand for milk and milk products is always there.

The expenses for opening a dairy farm mainly come from the purchase of cattle, thatch and some equipment. Loans for land, water, vehicles, electricity, diesel fuel, godowns and milk processing are also provided by the government for dairy farming. To set up a large unit, employment can also be started in consultation with National Agricultural and Rural Bank. Apart from this, officers of Animal Husbandry Department, Department of Dairy Cooperation, Advanced Dairy Farm and Dairy Department of the University also provide assistance in creating a dairy unit. It is very important to have dairy farming training to establish a dairy farm unit. Apart from this, it is also necessary to ensure the facility of veterinary hospital and artificial insemination.

Current status and prospects of milk production in India

According to the Economic Review, 2015-16, India ranks first in milk production. 18.5 percent of total world production is produced here. Production was 13.77 million tonnes in the year 2013-14, which increased to 14.63 crore in 2014-15 and more than 15.5 million tonnes in 2015-16. Agriculture and Farmers Welfare Minister Radha Mohan Singh says that milk production in the last two years (2014-15 and 2015-16) is better than before when the annual increase in production was close to four per cent. They also say that per capita availability of milk has increased from 307 grams per day in 2013-14 to 340 grams per day i.e. an increase of about 5 percent. Prior to 2014-15, the increase was less than three per cent. It is worth noting that in 1990-91 the average per capita availability was 176 grams while in 2013 the world average was 294 grams. It is clear that India has moved ahead in terms of milk and the prospects are looking much better.

An important reason for the prospects to improve is the increasing awareness of Indians about health. Now the demand for milk and milk beverages instead of cola-based beverages is increasing. Also, the milk business has become an important source of income in rural areas. Cooperatives have also been instrumental in making the milk business a success, which has led to better collection, transport, processing and distribution of milk, as well as converting milk into milk powder, reducing seasonal effects and profits with farmers. It also helped in partitioning. Farmers invest milk proceeds in farming which increases yields.

Problems of Milk Industry in India

Today, all kinds of favorable conditions exist for the dairy industry in the country. Apart from proper climate, technology, human resources, India also has the most animal wealth. The highest milk production in the world is in India. Apart from all the governmental, private and cooperative efforts continuously, despite efforts in this direction from the First Five Year Plan itself, this sector has still not achieved the desired success. At present, many problems exist for animal husbandry and dairy industry which needs to be redressed.

1. Animal Husbandry, Nutrition and Diseases : Adequate arrangements have been made in the country for the prevention of diseases caused by fodder and nutrition of animals, but we are still not able to get a complete diagnosis in this direction. Today, the availability of pasture in many parts of the country is very low or low. One of the reasons behind this is that the focus of farming is more than fodder production towards cash crop or food crop. Due to lack of land, pastures have been reduced. According to a study conducted in the country, available animal feed in India is capable of meeting the needs of just 52 percent of the animals. This situation is different in different states. On the other hand, a large number of animals suffer from infected and other dangerous diseases and die. The status of the animals covered under the institutional system is somewhat better, but the situation in the area where the villagers raise cattle on a large scale and contribute significantly to the dairy industry is very poor.

2. The nature of milk, lack of storage and marketing facilities : The biggest challenge in the milk business is its storage and marketing. The milk is destroyed very quickly. Therefore, in the absence of proper storage conditions, milk cannot be stored for long. The farmer has two or three milch animals on average, it is not easy to arrange storage and marketing at his level. If a production center becomes a cooling center, the producer will not be forced to sell his milk at a lower price and dairy growth rate will be increased.

3. Fluctuation in milk supply : The major problem of the milk industry is the effect of weather on the availability of raw milk. In every part of the country, the demand for milk and its products remains almost the same in every season, but the production of milk has been uneven and scattered. Shortage of raw milk from April to July in the year and increase in availability of raw milk from November to February by 200 to 300 percent, affects the capacity of dairy business.

4. Prices of a prudent price policy : The price of milk is determined by demand and supply in the market. As a result, it also affects the price of milk. This difference does not allow the permanent relationship between milk producers and milk projects to be established and the producer remains uncertain about the price of milk. This industry is a long term industry. Therefore, in order to make milk projects successful, it is necessary that milk producers should continue to get the price of milk more than the cost of production so that the business remains economical.

5. Lack of linkage with institutional system : Today the progress of dairy industry is felt on a wide scale, but there are many rural areas of the country where farmers rearing cattle and cooperating in dairy industry are separated from the institutional mechanism. These farmers are separated from such institutional mechanisms by which they can feel themselves in a more advantageous position. Apart from this, they also do not get the benefit of the market price properly, they are also exploited enough in this industry. Villages where the climate and other conditions are favorable for animal husbandry and milk production however they are isolated from these institutional systems. These people also find it difficult to get loans from institutional sources in their livelihood work, so there is a need to connect them to institutional sources of credit flow. If these areas are identified and provided adequate facilities and resources, then its benefits will be available on a large scale. Today there is a need to exploit such areas of potential adequately.

6. Inadequate means of transport : Milk is produced mainly in villages while its main consumer resides in the city, due to lack of means of transport, the milk producer in the village is unable to get remunerative prices for his produce. Especially in Flush Season, milk has to be sold at a low price or converted into ghee which is not economical for the producer. The growth rate of this industry will increase if there is proper transport system.

7. Problem of low productivity : The annual production of milch animals in the country is quite low. The average annual milk production (productivity) of cows in India is only 917 kg., while in Israel it is 9787 kg. and in the United States 8388 kg. The productivity of buffalo in India is 1000 kg. is. The reason for low productivity is also low quality management system.

Due to the lack of animal breeding knowledge in milk producers, while getting their animals here, care is taken only on getting the next point from the animal and not on the quality of the child getting it. Therefore, the quality of animals is decreasing from generation to generation.

To achieve high productivity in dairy animals, technical knowledge of animal breeding and management is required to be transmitted to the producer. The productivity of hybrid cow in the country is 2127 kg.

6. Poor quality of milk : India ranks first in the world in terms of milk production, but the per capita availability of milk is only 238 grams per day which is less than the world average (260 grams per person per day), while milk availability is very high in some countries. Due to the availability of milk in such a small quantity, its quality is not being taken care of, but milk is also being adulterated by preparing milk-like solution with some chemicals. In view of all this, we can say that the chemical and microbial quality of milk in the country is very poor. Along with increasing the productivity of milk producing animals, there is an urgent need for research and development to improve the quality of milk produced, its holding and distribution conditions.

7. Exploitation of cattle rearers : There are many farmers and cattle rearers in the country who despite their significant contribution to the market and dairy industry are not able to get proper rights. This is an important economic and social challenge of the region. They have to sell their milk to traders or private companies at very low prices. According to one figure, only 15 percent of the total milk produced by farmers and livestock farmers across the country is processed by organized sector companies. Apart from this, the cooperative companies that sell milk at the rate of Rs 45-50 to consumers in the market, they buy them from farmers at a rate of only Rs 25-30. In this way, farmers feel constantly cheated and eventually do not find this business profitable and want to get rid of it.

Dairy sector achievements in India

It is not that efforts have not been made to address all these challenges. Apart from increasing the productivity of livestock in the country, considerable efforts have also been made from time to time for the development of dairy industries. The result of all these efforts was that milk production increased from 102,6 lakh tons by the end of the Tenth Plan to 127.9 lakh tons by the end of the Eleventh Plan. The growth rate of milk production in the country is about 3-4 percent. Similarly, per capita availability of milk in the country is around 340 grams per day, which is higher than the world average of 294 grams per person. It is worth noting that even today most of the milk is produced in the country by small and marginal farmers and landless laborers. However these are now being brought under co-operation, and by March 2014, about 15.46 crore farmers have been brought under 162186 village-level

dairy cooperatives. The Cooperative Milk Unions have purchased 3350 lakh kg of milk per day on average from the previous year and registered a growth of 2.1 percent. The sale of liquid milk by the cooperative sectors has reached 2940 lakh liters per day during the year 2013-14, which is 5.8 percent higher than the previous year. Today, a national grid of milk has been established in India, which supplies fresh milk to about 800 cities and towns.

Government policies to solve the problem of dairy industry

Immediately after independence, the Government of India made adequate concerns on milk industry development and implemented various schemes. A clear proof of the government's concern over the development of dairy industry is the expenditure incurred on the development of the region in various five-year plan periods. The appropriation of funds made by the government for the development of milk industry shows that the government has given more attention to animal husbandry than the milk industry.

In order to conserve and increase the number of indigenous breeds, a special provision was made under the government's special scheme. In 2013, this amount was Rs 45 crore, which has now increased to Rs 582 crore.

A new scheme, Rashtriya Gokul Mission, has been launched under the National Program for Bovine Breeding and Dairy Development. The aim is not only to develop indigenous breeds but also to promote their conservation. Under this plan, a plan to develop integrated cattle development center in the form of 'Gokul Gram' is under implementation. So far, plans for more than Rs 582 crore have been approved for 27 states, of which more than Rs 216 crore has also been released. It has been approved to establish 14 Gokul villages. Apart from this, it has been decided to create two Rashtriya Kamadhenu Breeding Centers which will look after the development of indigenous breeds.

To boost milk production in the country and to pay more remuneration, the government has launched a new scheme National Bovine Productivity Mission. A provision of Rs 125 crore has been made for this.

The domestic breeds of cow give a special kind of milk 'A2A2', which helps in curing many chronic diseases and especially heart diseases. This variety of milk has many other benefits as well. Keeping this in mind, the Center has allocated Rs. 2-2 crores to the Odisha and Karnataka for marketing of 'A2A2' milk. It is the endeavor of the government that all the cooperative organizations market the milk of the 'A2A2' milk separately so that the farmers can get the special benefit of breeding domestic breeds.

According to the Ministry of Agriculture and Farmers Welfare, "The plan covers activities like increase in milk production, procurement, preservation, processing and marketing of milk and project cost to general category farmers / beneficiaries for bankable projects through NABARD as per the guidelines of the scheme. The Bankend provides capital subsidy at the rate of 25 percent and SC/DST category at 33.33% of the project cost.

Under this scheme, 2.6 lakh dairy units or beneficiaries have been assisted so far in 31 states and union territories. The success of the scheme can be gauged from the fact that a survey of the National Productivity Council revealed a 123% increase in milk production of beneficiaries. Also, more than 2 lakh people got additional employment through the scheme.

Steps taken by the Government in the Twelfth Five Year Plan

During the Twelfth Five Year Plan, in principle Rs 7628 crore was released from the Planning Commission for the animal husbandry sector, Rs 4976 crore for the dairy sector. Apart from this, many efforts have been made for the development of the region through several annual and periodically released schemes and policies. A number of schemes and programs are being run by the Department of Dairy under the Ministry of Agriculture for the development and promotion of the sector. The first revolutionary effort organized to increase milk production in the country started in the year 1970, which we know as the 'White Revolution'. It was named 'Operation Flood'. It included 10 states of the country. The purpose of Operation Flood was to develop income-enhancing activities of farmers. Operation Flood was the first planned attempt to lift the Indian dairy industry from a state of disrepair to a stronger position. In addition, the scheme called Intensive Dairy Development Program was launched in March 1993-94 on the basis of 100 percent grant-in-aid in non-operation flood, hilly and backward areas. In March 2005, it was revised and renamed the Intensive Dairy Development Program. The scheme was later reorganized into the National Bovine Breeding and Dairy Development Program in February 2014 along with the other three schemes. A budgetary provision of Rs 1800 crore was made during the Twelfth Five Year Plan for the implementation of this new scheme. The objective of the National Dairy Development Program is to create and strengthen the infrastructure including cold chain infrastructure for the production of quality milk by connecting the consumer to the farmer. At the same time, the dairy cooperatives at the village-level strengthen the productive companies and help in the rehabilitation of potentially viable milk federations and associations.

With a view to accelerate the livestock sector during the Twelfth Five Year Plan, the scheme was launched with the main objective of sustainable development of the region by providing more flexibility in preparing and implementing schemes as per local requirements for the benefit of farmers. This mission will also provide assistance for the development of small and other minor animal species according to the agro-climatic conditions of different regions. To accomplish these objectives, Rs 2800 crore was allocated for the activities under this mission. Along with this, the National Control Program for Animal Diseases was formulated keeping in mind the effective control of animal diseases that affect productivity. It was extended in the year 2014, in a total of 313 districts.

The government launched the National Dairy Plan (Phase-1) from 2011-12 to strengthen dairy cooperatives' efforts to increase the income of milk producers and farmers through improved management of fertility and diet. The scheme was a scheme with a total investment of Rs. 2242 crores which was implemented in 14 major dairy states with the following objectives.

- To help increase the productivity of milch animals so that milk production can be increased to meet the rapidly increasing demand for milk.
- Helping rural milk producers to have more access to organized milk processing sector.

The Dairy Entrepreneurship Development Scheme was launched in September 2010 with an aim to increase the production of milk in the country and to alleviate poverty through increasing private investment and self-employment opportunities in the dairy sector. The scheme is being implemented through NABARD which provides bank subsidized capital subsidy up to 25 per cent of the project cost to the general category beneficiaries and up to 33.33 per cent of the project cost to provide financial support from SC and ST beneficiaries. On the other hand, the National Dairy Development Board was set up in 1965 to promote schemes and

help organize and implement programs for dairy and other agro-based industries on cooperative method. It is a statutory body headquartered in Anand (Gujarat). In 1987, it was declared an institution of national importance and a statutory body.

Conclusion

Dairy is an important option for the entire world facing the challenges of food security. For a country like India where the necessary conditions of agriculture and animal husbandry exist, the dairy industry can be made world class. In addition, it can also prove to be a better employment option for a large working youth population. For this, efforts should be made to develop it with a better policy and monitoring mechanism.

Given the geographical location of India, the future of the dairy industry is quite bright. Today, we can also strengthen its distribution system by using innovative technology. Since dairy products are also perishable, but today by using new technologies, these products can be preserved for weeks or months. For this we need to promote new inventions. Also, extensive use of available technologies will have to be ensured.

RECOMMENDATIONS

To have safe, good quality milk from healthy animals, sustainable management practices can be adopted that are good for the animals from a social and economic perspective. Dairy farmers can implement the following measures to achieve the desired outcome:

- Animal Health: Healthy Animals that produce milk can be taken care of with effective health care programs.
- Milking Hygiene: Prerequisites to keep milk in hygienic conditions are proper harvesting and storing conditions. Equipment that can be used to harvest and store milk should be suitable and well maintained.
- Nutrition (Feed and Water): Products of suitable quality should be used to feed the animals need to be fed and watered.
- Animal Welfare: Animals should be kept free from thirst, malnutrition, discomfort, injuries, disease, pain and fear.
- Environment: Surroundings, which can balance the local environment around the farm, should be adopted for better milk production.
- Socio-Economic Management: Dairy farming can help by benefitting the farmers and other communities in both economic and social sector. These practices can also help to manage the social and economic risks to the enterprise.

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