



A REVIEW ON THE STRATEGIES FOR SUSTAINABLE DAIRY FARMING IN INDIA

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ABSTRACT

Livestock production is one of the main sectors which action a major source of income to the impoverished rural households throughout the globe. Livestock equip people with food, income, draught power and fertilizer and act as one of the major livelihood means of millions of our country. Dairy farming sector is emerging as the highest contributor to the agricultural wealth of our country India. Sustainable dairy farming is an interaction of son many factors that influence production and reproduction environment, longevity of live and input management.

Keywords: Dairy farming, livelihood, livestock, sustainable.

Introduction

The contribution of dairy animal is widely recognized. India is blessed with vast and varied dairy resource. Dairy farming mainly involves a group of interactions of many factors that influence environment and management, production and reproduction. Dairy cooperatives cover almost about 65,000 villages all over India and only 12-14 per cent of total milk production is canalized through organized sector. Concerted efforts should be therefore directed towards unorganized dairy farmers by providing necessary inputs and make them to adopt new milk production technologies. India has become the largest milk producer in the world but its share in the world milk trade is very low. An attempt to identify the core problems of the farmers and the steps to resolve the same for improving the export earnings and higher returns to dairy farmers is discussed in this paper.

Dairying is considered as one of the major instruments in bringing about socio-economic transformation of rural people in our country. Milk is the largest agricultural commodity produced in our country after rice. India's population is about 19.2 per cent of world's and 51.0 per cent of Asia's population with yearly production of about 121.50 million tons of milk (2011). Considering the biological value of protein in milk, our traditional habit of including milk in daily dietary have been one of the most important factors that had saved millions of children of our nation from developing malnutrition syndromes.

Increasing human number is making scarcely available land still more scarce, our objective is to improve milk output should be by way of improving productivity of the animals rather than increasing the heads of bovine population. Concerted efforts should henceforth be directed towards the dairy farmers contributing a major proportion of our nation's milk production to provide necessary input and make them adopt newer technologies in feeding, breeding, rearing, housing and health care to ensure substantial growth of output in milk.

Even though India has become the world's largest major milk generating country with the cost of milk production, its share in world's milk trade is very very low. Exports earnings which is made through ghee, skim and whole milk powders are also increasing, while import of special cheeses and butter oil is also showing an increasing trend. Our export earnings through this sector and ensure better returns to farmers,

research efforts should be directed towards new product development through biotechnology. Further, improved compliance to milk food legislation and conforming to international standards will also aid in improving export avenues for dairy products. Dairy industry in our country is well established on modern lines. It has acquired the new and improved technologies and engineering capabilities so well that now it is in a position to even export such technologies to other nations.

Problems Confronting Sustainable Dairy Production: There are a wide change in agro-climatic conditions, biodiversity and ecology, socio economic and cultural background, types/breeds of dairy cattle reared etc. Therefore, it is necessary to formulate a plan for dairy development specific to each micro level, viz., a block, a village, a taluk and a district. This planning not only would result in optimum utilization of local resources, but will also ensure better viability of various programs and higher cost benefits ratio.

Before embarking on the real planning and formulation of dairy development programs, it is very much necessary to consider the environmental impact. In the recent times, environmental aspect is very much stressed by the private parties and multinational agencies while funding the animal husbandry projects. Notwithstanding above consideration, it is very much needed to adopt the following measures for efficient identification and formulation of animal husbandry and veterinary projects:

Need for identifying such new technologies, which demand low capital, low time and minimum operations. Need to explore the possibilities of providing loans at the minimum rates with subsidies for dairy development activities. Need for gradual improvements of the existing indigenous breeds of animals. Need for removal of useless stock and replacement with high yielding superior quality animals. Need to gradual change in husbandry practice for improving animal productivity and adoption of new and varied biotechnological interventions in feed and fodder, reproduction and growth aspects etc. Government role in improving the supply of inputs and service to dairy farmers at their doorsteps with less cost. Need Contribution from various non-governmental agencies or organization to ease the problems of farmers in collaboration with the governmental agencies. Need for developing suitable farmer's cooperatives societies or federations. Need for simultaneous improvement of cold chain storage and marketing facilities especially for milk and milk products. Need for extensions services from the Government agencies, Agriculture Universities, R&D institutions and corporation, besides mobilization of various input services from various agencies.

Table –1
Per Capita Availability and Production of Milk in India

Year	Per Capita Availability of Milk (g/day)	Production (Million tones)
2001-2002	222	80.9
2002-2003	234	85.9
2003-2004	237	89.4
2004-2005	240	92.2
2006-2007	246	100.9
2007-2008	252	104.8
2008-2009	258	108.5
2009-2010	263	112.5
2010-2011	281	121.80

Source: Economic survey 2011-12, ministry of Finance Govt. of India

Planning an apt Dairy Project: It may be very useful to consider the following information for the better planning and development of new dairy husbandry and veterinary projects which would be sustainable throughout.

Dairy Cattle Population: First step is to know the existing number position of dairy animals in the different dairy subzones of the country through available records such as Census report of both human and dairy cattle populations, reports of survey conducted, actually conducting a sample survey, with these records, we can obtain the correct information for identification and development of an apt dairy development projects and schemes at grassroots level.

Categories of Holdings: One is landless agricultural workers, marginal, small, medium and large farmers. Other is the extent of the usage of natural resources like land, human (labor), capital and entrepreneurship.

Existing available infrastructure facilities:

Veterinary hospitals and rural veterinary dispensaries.

Artificial Intelligence centers- A.I breeding facilities with liquid semen.

Semen banks – semen freezing and semen evaluation facilities available with adequate facilities for storing and frozen semen.

Cooperatives – primary or secondary cooperatives for meeting the farmers varied demands and provision of loans.

Extension services – Animal husbandry and dairying.

Milk Chilling centers – Milk collection and chilling centers and transportation to processing units.

Feed plants – manufacturing of compounded feed.

Availability of manpower.

Drought Power: Globally, animals are stills very vital source of power for agriculture operations and for transportation of goods and community. It is widely used in developing countries like ours. Animals such as bullocks, buffaloes, horses, mules and camel are very commonly use in our country for drought purpose and their role in saving of energy and there by the most precious foreign exchange. It is estimated to be Rs. 45,000 crore per year. It should be emphasized that reducing levels of various fossils fuels may slow down or even reverse the mechanization trends witnessed even in developed countries.

CONCLUSION

Dairy industry plays a major role in our nation's economy in the years to come. The dairy industry's major contribution in providing new avenues for employment in both direct and indirect and its main role in improving the nutritional standards of our people also add to the importance that needs to be attached to this sector during the 21st century.

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