

# Contribution of dairy farming in employment and household nutrition in India

## Abstract

The dairy farming system is known to enhance sustainable livelihood of farmers in drought prone area because it has been considered as one of the activities aimed at alleviating poverty, unemployment, and nutritional related problems especially in rural areas of drought prone area. As part of a balanced diet, milk and dairy products can be an important source of dietary energy, protein and fat. The present study is an attempt to analyze the nature and extent of contribution of dairying to income, employment and food security of rural farming households. Since, dairying is practiced in a mixed farming rural set up in most parts of the country.

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## Introduction

Growing consumption of dairy and other livestock products is bringing important nutritional benefits to large segments of the population of developing countries, although many millions of people in developing countries are still not able to afford better-quality diets owing to the higher cost. However, the rapid growth in production and consumption of livestock products also presents risks to human and animal health, the environment and the economic viability of many poor smallholders, but may also offer opportunities for small- and medium-scale dairy industries. Commercial and small scale dairy farming in India is no doubt playing an important role in the total milk production and economy of our country. And almost all regions of India are suitable for setting up dairy farming business. Most of the dairy farmers in India are raising animals in small scale traditional methods. They are not aware about the modern farming methods and improved techniques for dairy farming. As a result, some farmers are losing their investment instead of being benefited. Proper business plan, well management and care can ensure maximum production and profit from dairy farming business. India has vast resources of livestock, which play an important role in the national economy and also in the socioeconomic development of millions of rural households. This is reflected in the fact the country possesses 57% of the world's buffalo and 16% of the world's cattle population (Livestock Census, GOI, 2007). The Indian dairy sector contributes a large share (27%) of the agricultural gross domestic product. The contribution of agriculture and livestock sectors to the national GDP is around 15.3% and 3.6% respectively (Central Statistical Organization GOI, 2012). It is estimated that almost 150 million farm households, i.e. more than 750 million people, are engaged in milk production worldwide, the majority of who are in developing countries like India Hemme & Otte.<sup>1</sup> The livestock plays important role in drought prone area particularly dairying some of the studies have shown that about 65 per cent of the rural poor have livestock for income and drought insurance in semi-arid tropics of India (Walker and Rayan, 1990). According to Nagaratna et al.<sup>2</sup> the Study has clearly brought out that there was sever reduction in the annual income of the respondents during drought year where as a reduction from livestock was less as compared to crops it is less prone to variation in rainfall and other climatic. Livestock sector particularly dairy farming holds a great promise providing income and employment especially in drought

prone because it is labour intensive and employment generated is relatively high (Rangnekar, 2004).

Dairying in India is an occupation of small farmers. Over 60 percent of close to 11 million farmer members in about 100,000 village milk cooperatives all over the country are small, marginal and even landless producers. Dairying has not meant just producing milk leading to India emerging as the largest milk producer in the world. Dairying has provided livelihoods to millions of the poorest in our country and for many it is the sole source of livelihood bringing cash into their hands, twice a day every day of the year. In India, as is the case in many other developing countries, the distribution of livestock among the poorest is far more equitable than the distribution of land. Livestock therefore play an extremely critical role in supporting and sustaining livelihoods of a large number of poor. Livestock are often the only livelihood option available to the landless as common property resources are being increasingly captured by individuals for private gain Patel.<sup>3</sup> Dairying is an important part of the Indian agricultural economy. At the national level, about 17% of the total value of output from agriculture derives from this sector, placing Indian milk sector in the first place followed by rice (14.4%) and wheat (8.7%) in 1998-99 (CSO, 2001). From chronic shortages, India has now become the largest producer of milk in the world, with estimated production of about 81 million tons in 2001. Dairy enterprise is considered a "treasure" of the Indian economy, particularly for rural systems. It provides nutrition, draft animal power, organic manure, supplementary employment, cash income, and a 'cushion' for 'drought proofing' in India (Patel 1993; Paroda 1998). The sector involves millions of resource-poor farmers, for whom animal ownership ensures critical livelihood, sustainable farming, and economic stability. Dairying in the recent decades has been considered a vital component in the diversification of Indian agriculture, where crop farming is beset with stagnating growth and low absorption of unskilled agricultural laborers. In order to alleviate the problem of unemployment/under-employment and to maintain domestic tranquility, diversification of crop production into non-crop enterprises like dairy farming is of vital importance (Pandey 2000; Alagh 2002). At the macro-level, the gross domestic product (GDP) from livestock is estimated at about Rs. 98,421 crore (current prices), contributing about 22% to the agricultural gross domestic product (GDP) and about 5.5% to the national GDP (CSO, 2001). Among various livestock products, milk constitutes the major share (67%) in

value of outputs from the livestock sector and is the single largest commodity contributing to the value of output from agriculture. However, the contribution of dairying to income, employment and food security of rural farming households in India has not yet been empirically explored.

The promotion of dairy farming is often justified by the assumption that adopting households will consume more milk; generate employment and more cash income. Milk is a significant source of both energy and protein, including many essential amino acids lacking in carbohydrate-based diets Huss Ashmore.<sup>4</sup> Milk also contains many essential micro-nutrients, such as Vitamins A and D. Increased milk consumption is therefore assumed to improve nutritional outcomes for households. In addition, to the extent that dairy production increases incomes, households with dairy cattle can afford to purchase more food and a wider variety of foods. This 'income effect' is expected to contribute to improvement of nutritional status in households of the region. According to Karmakar and Banerjee (2006) dairying has been considered as one of the activities aimed at alleviating the poverty and unemployment especially in the rural areas in the rain-fed and drought-prone regions. Because it is considered as a secondary occupation for about 69 percent of India's farming community. It contributes close to a one third of the gross income of rural households and in the case of those without land, nearly half of their gross income. An estimated 70 million rural milch animal households of which about 75 percent are landless, marginal or small farmers. Most of the rural milch owning households own only one to three animals and it is estimated that only around 15 percent households own more than 4 milch animals (Livestock Census, GOI,2007). Dairy farming assumes greater relevance in providing 'drought proofing and ensuring income and employment and also nutritional security for sustainable rural livelihood.<sup>5,6</sup> Improvement in livestock production is an important for increasing the income of marginal and small farmers and landless laborers, given the uncertainties of crop production. The sector needs focused attention particularly in drought prone area where there is all the more need to add to the incomes of the farmers.<sup>7-9</sup>

## Conclusion

- i. Dairying contributes positively and significantly to the income and employment of rural farming households, especially the marginal and poor farmers, thereby providing them livelihoods and sustenance.
- ii. Dairying helps in equitable distribution of income and employment among the rural farming households, thereby reducing the disparity in holding of resources by the rural communities.
- iii. Dairying helps to boost the nutritional level and hence the food security of the rural farming households, especially the marginal and deprived sections of the rural society.

## Suggestions

- a. Promotion of dairying as a viable enterprise in the remote rural areas of the country can boost rural income and employment to a great extent. This can go a long way in removing poverty, unemployment and violence emanating from the rural areas of the country.
- b. The target population of dairy promotion schemes should be primarily the marginal and poor farmers who are generally more dependent and more intensively involved in the business.
- c. Dairy promotion among marginal and landless farmers would not only augment their sources of income and employment but also provide them security against drought, disease and hunger.

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## Conflict of interest

The author declares no conflict of interest.

## References

1. Hemme T, Otte J. *Status of and Prospects for Smallholder Milk Production—A Global Perspective*. Italy: Food and Agriculture Organization of the United Nations; 2010. p. 19–22.
2. Nagaratna PJ, Shashikiran ND, Subbareddy VV. In vitro comparison of Ni Ti rotary instruments and stainless steel hand instruments in root canal preparations of primary and permanent molar. *Journal of Indian society of pedodontics and preventive dentistry*. 2006;24(4):186–191.
3. Vinod Ahuja. Challenges and Opportunities for Asia in the Emerging Market Environment FAO 1996. *Smallholder Dairying in India: Challenges Ahead at Workshop on Livestock and Livelihoods*. India; 2004.
4. Huss Ashmore R. *Nutritional Impacts of Intensified Dairy Production: An Assessment in Coast Province*. Kenya: ILRAD; 1992. 33 p.
5. *Central Statistical Organization*. India: Government of India; 2012.
6. Ellen M, Anthony M, Deirdre M. *Milk and Dairy Products in Human Nutrition*. Italy: FAO; 2013. p. 12–18.
7. Hoorweg J, Willen V. Nutrition in Agricultural development: Intensive dairy farming by rural smallholders. *Ecology of Food and Nutrition*. 2000;39:395–416.
8. Suzanne PM, Allen L. *Animal Source Foods and Nutrition in Developing Countries*. USA: University of California; 2002. p. 127–135.
9. <http://www.fao.org>