

RELATION BETWEEN LIVE STOCK PRODUCTION AND CREDIT ON MILK PRODUCTION

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Introduction

Milk has long been considered nearly a complete food for infants and children. It is also considered essential for maintenance of health and promotion of growth of human body providing energy and vitamins. The activities of animal husbandry and dairying have acquired considerable importance in various development plants, projects and generation of National Domestic Product (NDP) of the country.¹ The need for reliable and current livestock data to scientifically formulate and objectively evaluate the impacts of animal husbandry and dairy development programmes and projects cannot be over emphasized.

India is the first largest producer of milk (84.0 million tones) in the world accounting for about 12 per cent of the total milk production and make a per capita per day availability of 210 gms which is recommended by I.C.M.R.² In spite of sincere efforts made by the Government to bridge the gap between demand and supply of milk in the country by launching special programmes for augmenting milk production, it has not been achieved. Dairy enterprise plays a very important role in the rural economy of India. It provides income and employment not only to the weaker sections of the society but also to the farming community of the country in general. The returns from small holdings can be maximized by proper combination of dairy enterprise with crop production. India ranks first in the number of animals. In the production of milk, the contribution of cross bred cows is significant.

Dairying provides livelihood to millions of Indian farmers and generates additional income and employment for a large number of families in the countryside. Dairy industry is the single largest contributor to India's GDP and with its profound social impact, involves over 80 million small farming households. However, India with about 18.36 per cent of the world's total cattle and buffalo population accounts for only about 14.5 per cent of the world's total milk production. Our livestock are roughly half as efficient as the average milk animals in the world and probably only one-fifth as efficient as those in the advanced countries. Although milk production in India has shown a rising trend ever since the inception of 'Operation Flood (OF)' programme in 1970-71, the Indian dairy industry acquired substantial growth from eighth plan onwards with rise in milk

production from 58 million tonnes in 1992-93 to 108.5 million tonnes in 2008-09. This has not only placed Indian dairy industry on top of the world but also led to sustained growth in the availability of milk and milk products for the burgeoning population of the country. India has acquired the position of the largest producer of milk in the world despite constraints like rearing of livestock under sub optimal conditions due to low economic status of dairy owners. The development of Indian dairy sector is an unprecedented success story as it is based on millions of small producers. The subsidies provided by the developed countries to their dairy farmers have helped them to lower the prices of dairy products, affecting in turn, the farming community in the developing world. Traders are now free to import milk products and thereby earn high profits at the expense of farmers belonging to developing countries like India.

Review of Literature

MR. Yadav, (2017) Livestock sector including dairying, poultry and fisheries contribute about 4% to national GDP and 30% to agricultural GDP in India. It provides nutritious food such as milk, meat, egg, fish; wool, hairs, organic manure, draft power, feathers, skin & hides, and other by-products from slaughter house as raw material for industry; nutritional, social and livelihood security and employment to millions of small, marginal and landless farmers; gender empowerment and human wellbeing in number of ways. India witnessed remarkable growth in milk and egg production (white revolution) and fish production (blue revolution) after 1950's and is number one in milk production, second in aquaculture, third in fish and egg production, and fifth in broiler production globally. However, average per unit productivity of milk, wool and pork is lower than in developed countries. Major constraints in livestock production relate to non-availability of adequate quality feed and fodder, low genetic production potential of indigenous breeds, morbidity and mortality losses due to infectious and non-infectious diseases. Liberalized international trade, increasing demand for value added livestock produce and organic food, and climate change have further highlighted the importance of livestock farming. Livestock are the best insurance against the vagaries of nature like drought, famine and other natural calamities. Modern cutting edge technologies, innovative practices and policies for improved breeding,

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feeding, health care, management and trade will be necessary for meeting the increasing requirement of animal protein and other livestock produce. Constraints and opportunities in livestock production in India are discussed in the paper.

Abdullah, (2016) This study employed stratified random sampling approach to collect the input-output and socioeconomic data set to see the impact of credit on the growth of livestock sector in the rural areas. The income elasticities of meat and livestock products were highest compared to all other food items except fruits, defining the future role of livestock sector in our food basket. It was observed that credit availability expanded the livestock sector more than double (economies of size), which increased per family per month income from livestock sector by 181%. The elasticity values of family size, literacy rate (schooling years) and credit were 0.18, 0.05 and 0.06, respectively. The elasticity of family size was highest, followed by credit and literacy rate, indicating that adequate potential exists that can be explored to utilize unemployed and untrained rural labor in the agriculture sector. It would help to mitigate the increasing population pressure on mega cities of Pakistan by providing employment opportunities at the door steps of rural community.

Murari Lal Sharma, (2015) The study was undertaken in Kumaon division of Uttarakhand state of India with the objective of estimating technical efficiency in milk production across different herd-size category households and factors influencing it. Total of 60 farm households having representation from different herd-size categories drawn from six randomly selected villages of plain and hilly regions of the division constituted the ultimate sampling units of the study. Stochastic frontier production function analysis was used to estimate the technical efficiency in milk production. Multivariate regression equations were fitted taking technical efficiency index as the regressand to identify the factors significantly influencing technical efficiency in milk production. The study revealed that variation in output across farms in the study area was due to difference in their technical efficiency levels. However, it was interesting to note that smallholder producers were more technically efficient in milk production than their larger counterparts, especially in the plains. Apart from herd size, intensity of market participation had significant and positive impact on technical efficiency in the plains. This provides definite indication that increasing the level of commercialization of dairy farms would have beneficial impact on their production efficiency.

Michio Sugiyama, (2015) this study reports the results of survey conducted on livestock

development in selected Asian countries. Livestock plays a vital role in economic development and play a major role in the life of farmers in developing Asian countries. In the Asian region, livestock provides major additional contribution to agriculture through draft power, manure, fuel, and as a fertilizer. Animal products such as meat, milk and eggs provide daily cash income to agricultural families and also provide much required nutrition to rural population. The outlook for the poultry farming is promising. The average consumption of animal products among these countries is well below the world average but with the growth in disposable income and purchasing power will increase the demand for animal products. This study found that the Asian share of the world meat production has been quite low when compared to its animal population. According to our survey, there is a characteristic reduction of farm families raising cattle and pigs. However, the farm families raising poultry is increasing in developing countries but with large scale poultry farming becoming more profitable in developed and industrialized countries resulting reduction of farm families raising poultry. Along with a wide variety of religious followings, cultures, with different food habits, the livestock industry in Asia has been trying to satisfy variety of consumers in the region. Since feed cost is becoming the most important factor in livestock production, increasing self sufficiency in feed production will be an important factor in future development programs. Demand for animal products has been increasing with the rapid economic development in Asia.

Patti Kristjanson, (2015) This paper synthesises evidence of the contributions that livestock make to the livelihoods of poor women in sub-Saharan Africa and South Asia and identifies factors that enhance or constrain livestock-related opportunities for women. We apply a gender lens to three livestock-related pathways out of poverty—securing, building and safeguarding livestock assets; increasing and sustaining livestock productivity; and enhancing participation in and benefits from livestock markets. For each pathway, we summarize what is known and what this knowledge implies for programmatic and policy interventions. Assembling this information is a first step towards identifying some of the large gaps in our evidence base as well as some indications of the kinds of research and development interventions, made in relation to which species and value chains, that appear most likely to benefit poor women and their families

Dairying - A Major Livestock Enterprise in India

Dairy Farming is a major livestock enterprise in India where small and marginal farmers are

engaged to earn their livelihood. India has emerged as the largest producer of milk in the world in 2001 with an annual production of 84 million tonnes and continues to occupy the top position in the subsequent years and in the year 2008-09, the milk production was 108.5 million tonnes. The annual milk production of India was 17.0 & 21.2 million tonnes in the years in 1950-51 & 1968-69 respectively. The per capita availability of milk has also increased from 112 grams per day in 1968-69 to 258 grams per day in 2008-09, but still below the world average of 265 grams per day.

Dairying is recognized as an important source of income for small and marginal farmers in India since on an average 22-26 per cent of the income of the rural households is contributed by milk. A large majority of milk producers have one or two milch animals and account for about 70 per cent of milk production. Low capital intensity, short operating cycle, steady returns make dairying a preferred livelihood activity among the small and marginal farmers. Lack of other lucrative and alternate employment opportunities in the villages often make dairying the only viable option for many villagers. It helps to improve the status of rural masses especially weaker sections, consisting of small and marginal farmers and landless labourers and women of low income families.

Conclusion

The dairying is a vital sector of the Indian economy. It is an important source of employment and supplementary income on a regular basis for a majority of rural population. The dairy sector witnessed a rapid and remarkable growth and success in the last three to four decades. The milk production of India recorded an impressive increase and it rose from 17.5 million MT in 1951 to about 78 million MT in 2000. At present, India is the second largest milk producing country in the world and it is estimated that before the turn of the century, India will be number one in milk production in the world. The development of dairy sector brings many changes in milk consumption, milk utilisation, sales patterns, at the rural producers' level.

The trends in livestock population show that there have been some changes in the composition of livestock in terms of bovine, ovine and other animals. The share of bovine animals has declined while that of bovines has increased during the last five decades. The growth rates of total livestock population have decelerated sharply during the last two and half decades. The population of less productive bovine (indigenous cattle X and male cattle) has declined whereas that of productive animals like crossbred cows has increased. The trends in the size and the composition of the bovine

stock in the country show that the shift is taking place in favour of the bovines as milch animals. The stock of buffalo increased at a faster rate compared to cattle population indicating the rising importance of buffaloes because of higher price for buffalo milk and substitution of draught animals with mechanical power in the country.

The results of consumption pattern of livestock products illustrate that consumption of major livestock products has increased in both the rural and urban areas but the average consumption is lower in the rural / areas compared to urban areas . The consumer expenditure on livestock products rises rapidly with expenditure/income levels and exceeds cereals and other food items in the higher income/expenditure levels in both the rural and urban areas. Among the livestock products, milk and milk products dominate the consumption expenditure. The performance of Indian livestock sector in general and dairy and poultry sectors in particular has been very impressive during the last three decades. Milk production has increased at five-fold and egg production by almost 4.5 times. During the last three decades. Despite this increase in livestock production, per capita availability of livestock products in the country is lower than the advanced countries. There are regional disparities in production as well as consumption of livestock products in the country. The eastern region is lagging behind in terms of livestock development. The growth in livestock sector has decelerated during the 1990s compared to 1980s.

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