

AN ECONOMIC ANALYSIS OF DAIRY SECTOR IN JAMMU AND KASHMIR WITH SPECIAL REFERENCE TO MILK PRODUCTION

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ABSTRACT

Dairying is the potential source of additional income of the people of Jammu and Kashmir State, especially for the rural people. This is considered an effective instrument for improving the economic conditions of rural families, particularly those of the small and marginal farmers and landless agricultural labourers. Besides increasing the income of the people, this sector helps in increasing the crop production by providing the drag power and organic manure on regular basis. Therefore reliance on the dairy sector has become an inevitable process in J&K economy. This sector not only generates income and employment in the state of Jammu and Kashmir, but also supplements the varied nutritional requirements of the individuals. Milk production in Jammu and Kashmir is steadily increasing from 2245.26 thousand MTs in 2014-15 to 2400.47 thousand MTs in 2015-16. There is 7 percent increase in the production of milk in the State from 2014-15 to 2015-16. The per capita milk consumption is 378 grams per day, which is well above the national average of 256 grams.

KEYWORDS: *Economic Analysis, Dairy Industry, Marginal Farmers, Per-Capita Consumption*

INTRODUCTION

Dairy sector has possessed a remarkable growth from 1997 onwards. As a high economic growth rate in agriculture and its allied sectors in terms of production and productivity, the government of India has given due stress to this sector as more than half of the Indian population is directly involved in this sector for their livelihood. As far as the state of Jammu and Kashmir is concerned, it is ideally suited for dairy sector especially rearing of milk animals, because the state has a vast geographical area, moderate climate, green pastures etc. The State has registered a steady growth in the production of milk in recent years. The State's milk production was 15.92 lakh metric tons in 2009-10, which has been increased to 25 lakh metric tonnes in 2014-14. (Bilal et. al 2014). The per capita milk consumption is 378 grams per day (Economic survey 2013-14). There is a close relationship between agriculture and dairy sector in J&K. Dairy sector enables people who are associated with it to generate working capital to produce the inputs for agricultural development. In rural areas owing to milch animals contribute not only to the dairy industry, but also to agriculture by way of providing manure, dung fuel, feed wastages and animal labour. Milk production can be considered as a yardstick to assess the growth of dairying in any country. (Sing Jasbir et. al. 2008)

OBJECTIVE

To examine the Dairy sector in the J& K with special reference to the production of milk

METHODOLOGY

The study related to the economic analysis of dairy sector in Jammu and Kashmir is totally based on secondary data. The secondary data related to production and consumption of milk in the state has been collected from;

Directorate of Economics and Statistics, planning and Development Department Govt of J&K

Livestock census of Govt of Jammu and Kashmir

Economic Survey of Government of Jammu and Kashmir

Besides this, the sources of secondary data include Papers, Journals and Magazines etc.

In order to analyze the data regarding the production of milk, following statistical methods has been used;

- To work out growth rate of Dairy industry in terms of production of milk following formula has been used;

$$\text{Growth rate} = \frac{Q_t - Q_{t-1}}{Q_{t-1}} * 100$$

Where Q_t = Production of milk in the current period;

Q_{t-1} = Production of milk in a base period.

- To estimate the production of milk, following formula has been used;

$$Y = \alpha + \beta_1 X_1$$

α = Intercept, the β_1 = unknown parameter to be estimated

REVIEW OF LITERATURE

The milk production in district Jammu was not in accordance with their bovine population because of the adoption of technology (Sing Jasbir, et al 2008). Milk production in India is by far the domain of small and marginal farmers in a mixed farming system (Patel, 1994). Livestock is an emerging sector in the economy of Jammu and Kashmir and plays an important role in the socio-economic development of the state (Lal Banarsi et. al. 2015). According to the economic survey carried out by the Directorate of Economics and Statistics, J&K, agriculture and livestock sector contribute 17.00% to our Gross State Domestic Product (GSDP). It is estimated that livestock and its derived foods and other products contributes about 6.13% to this GSDP. The income elasticity of demand for dairy products is high. The analysis has revealed that dairying offers a vast potential for development in the state. The dairy sector is an engine of growth, it enables people who are associated with it to get income by efficient utilization. This sector not only contributes to the levels of income but also to agriculture by way of providing manure, dung fuel, feed wastages and animal labour. (Bilal et al 2014)

About more than half of population in the state is associated with agriculture and allied activities with agriculture and livestock rearing as their main occupation. Dairy development especially rearing of milk animals is one of the ideally suitable, core and critical activity in the economic profile of the state, as the climatic conditions and green pasturage are conducive for the rearing of animal, which forms the mainstay of dairy development. As the demand for milk and milk

products has been increasing at a faster rate, there is a scope for dairy development in the state. As per the livestock census of 2005-06, the state has 8.24 million live stocks, comprising 2.85 million cattle, 54 million buffalos, 3.56 million sheep and 1.29 million goat population. (livestock census 2005-06). The total annual milk production of the state has increased from 11.67 lack million tonnes in 1997-98 to 14.14 lack million tonnes in 2003-04. The total production of milk in the country is 880.08 lack million tonnes. The overall contribution of Jammu and Kashmir State in milk production of the country is 1.60%. The per capita availability of milk in a state is 363 grams per head per day and ranked 4th in Indian union.

Average milk yield per day per animal during 2013-14 was 5.643 Kgs. For Cross-cows, 2.594 Kgs, for Local-cows, 4.895 Kgs for Buffaloes and 0.605 Kg for Goats. (Economic Survey 2013-14) During the year 2013-14, the total estimated milk production for the State was 1614.57 thousand MTs constituting of 982.05 thousand MTs (60.83%) of Cross-cow Milk, 237.19 thousand MTs (14.69%) of Local-cow Milk, 293.70 thousand MTs (18.19%) of Buffalo Milk and 101.62 thousand MTs (62.94%) of Goat Milk. During the year 2011-12, the total estimated milk production for the State was 1609.247 thousand MTs. Average per capita availability of milk in our state was 370.10 gms per day which is higher than the national average of 356 gm per person per day¹.

The step initiated by the Department of Animal Husbandry has resulted in the consistent increase in milk production in the State. The milk production for the year 2015-16 has reached 2400.47 thousand metric tonnes.

Table 1: Production of Milk in Jammu and Kashmir (Thousand Metric Tones)

Year	Milk Production(000Mt)	Growth Rate
2008-09	1548.00	-
2009-10	1622.28	4.80
2010-11	1788.44	10.24
2011-12	1889.05	5.62
2012-13	2070.54	9.60
2013-14	2136.25	3.18
2014-15	2245.26	5.10
2015-16	2400.47	7.00

Source: Economic survey 2016-17

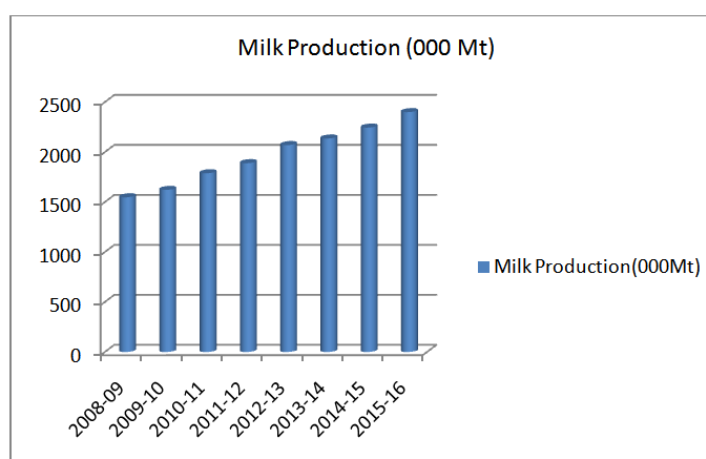


Figure 1: Milk Production in Jammu and Kashmir

¹ Economic survey of Jammu and Kashmir 2012-13

As it is obvious from the above table and figure, that Jammu and Kashmir are ideally suited for Dairy development. The state has registered a steady growth in milk production. The State's milk production in 2008 was 15.48 lakh metric tonnes, which increased to 20.70 lakh metric tonnes in 2012-13. The perusal of the above table and figure gives the clear picture of the growth of milk production in Kashmir. The production of milk has registration a 10.86 percent growth in 2013-14 as against 4 percent in 2009-10. By employing regression following results were obtained.

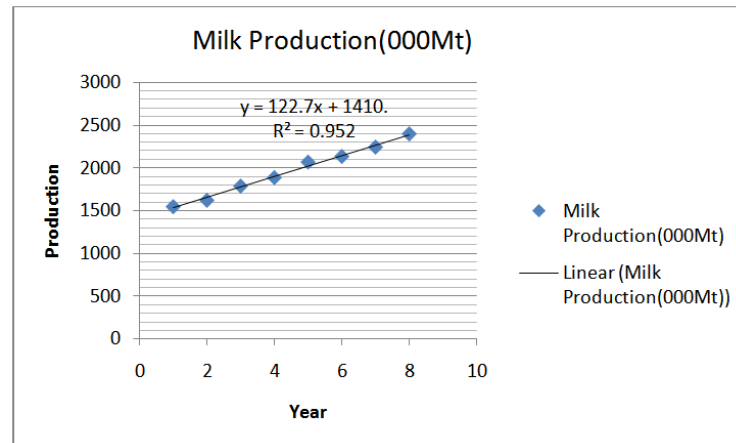


Figure 2: Estimated Milk Production in Jammu and Kashmir (Trend Line)

Regression equation $y = 122.7X + 1410$, where $Y = \text{Production}$ and $X = \text{years}$, shows that in the year 2015-15, the production of milk will reach up to MT 2400.47. This shows that dairy industry is prospering day by day. $R^2 = 0.95$, which shows that there is highly increased in production of milk over the period of time. The estimated milk production for the year 2016-17 and 2017- 18 is 2514.3 and 2637.00 thousand metric tonnes respectively.

CONCLUSIONS

Dairying is a potential source of additional income for the rural people. Its contribution to the national income is invaluable. This sector provides insurance against crop failure and helps in increasing the production output from agriculture by providing organic manure. The major problems in this sector are animal diseases, lack of fodder and nutrition feed, lack of market access, technical guidance. Therefore there is need to develop the infrastructure like there should be cooperatives, coolers, market facilities, so that this sector can develop and will provide livelihood to thousands of people especially in rural areas in the state of Jammu and Kashmir.

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