

**ROLE OF DAIRY FARMERS IN RURAL DEVELOPMENT AND
SUSTAINABILITY: A STUDY ON DAIRY FARMERS IN WESTERN GHATS
REGION OF IDUKKI**

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Abstract

Dairy farmers and dairying are one of the major activities in the rural economy of India. Similarly, the Dairy Farmers from the Western Ghats regions of Idukki district consider dairying as their one of the major livelihood of the district. The present study deals with dairy farmers, one of the segments of society, who are small land holders, traditional dairy farmers, small and marginal agricultural farmers of the Western Ghats of Idukki. The study also deals with climatic vulnerability, economic, environmental and social sustainability of the dairy farmers. It also deals with the knowledge of the situation of farmers and the various activities that help farmers to cope with their day today demands of life. Being indicated, the study attempts to point out the demographic, social and economic conditions of milk farmers in Western Ghats region of Idukki. The learned knowledge helps to clear and detailed approval of that dairying become the secondary source of income. They can sustain their life with economic environmental and social sustainability. The intension of the particular object is to examine the growth of socio-economic life through encourage the farmer to procure more milk, so that they can obtain a profitable dairy farming.

Keywords: *Milk farmers, Economic and Social development, Western Ghats, Kerala*

1 Introduction

Milk, in India, is the second largest product after rice. India's Dairy farming includes many factors like production, reproduction, environment management, climatic vulnerability etc. Dairy co-operatives cover 70,000 villages all over India. 16-18 percent of total milk is channelized through this organized sector. India is known as the world's highest producer of milk. But its share of trade sector is very nominal. Dairying becomes one of the major instruments in bringing economic and social stability in the life of the people of India. Milk farmers in the western Ghat of Idukki faces with many problems for their sustainability. Their livelihood are perishing due to change of climatic condition. Emerging new rule of Kasture rangon reports affects the farmers. They are blocked even to work in their own land. Agriculture works like grafting of trees which they grew in their land also are restricted. In this situation milk dairy farming becomes one of the major livelihood for the farmers in western ghat region of Idukki. Dairying is become additional benefits of income for millions of rural families and it assures employment and a better financial status in the study area. In this context the objective of the study are firstly to study about the relation between milk farmers and rural development. Secondly to study about the climatic vulnerability and how it has affected the farmers. Third objective of the study is about sustainability of farmers in the study area through Governmental and Non-governmental milk societies. Fourth objective of the Study is about the intervention of NGOs for the sustainability of rural farmers. Fifth objective of the study about how the dairy farmers attain economic stability in the study area.

2 Review of Literature

(IUF Dairy division) Milk farmers need to adopt sustainable practice in their farms for a sustainable development. Farmers have to adopt concepts like safeguarding natural resources and environment, cattle welfare through insemination at the same time productive, By this farmers can protect their local community too.

Indian Dairymen Monthly (2010) Development of the dairy sector has multiple effects on our rural economy. First it provides additional employment to millions of people in rural areas

and generates additional income and support to farmers during off agriculture season. NDDDB (2017) Dairying has become an important secondary source of income for millions of rural families and assumed the most important role in providing employment and income generation particularly among small and marginal dairy farmers. Of the total milk production in India about 48% produced are from rural area

Milma Annual Report (2017) Through Dairy development departments intervention milk production in Idukki district has increased. Milk procurement through APCOS is 1.60 lakhs in 2016-2017. It is increased to 1.82 LPD in 2017-2018.

Johnson L (2007) made an observation that Dairy farmers get an additional income from milk animals with which they are able to provide education to their children, keeping as liquid cash, subscribe newspaper in their homes and manage their daily expenditure smoothly.

Regitha P R (2013) in her research paper had the opinion that people who are in younger age has an aversion towards the milk farming and dairy sector. She further suggests that it should be an instrument for socio-economic changes in Kerala. The only sector in Kerala that holds stable growth and employment is dairy sector.

3 Context of the study

3.1 Dairy farmers and Rural Development

Dairy farmers play a decisive role in the Rural Development of India. Over 62 percent of the total milk produced in the country are by the small dairy farmers of the Indian villages. The contributions of these villages dominate the milk dairy productions of the entire country. Dairying provides almost a year record of regular income for people who previously could only depend on payment from yearly or seasonal crops or occasional labour. It is estimated that up to 60-65 percent of income of this group now comes from dairying

3.2 Climatic vulnerability

Poor and vulnerable are the real victims of climatic changes and environmental catastrophe in Western Ghats. Heavy rains of last years in these hilly regions has led to land sliding and leaves many of the farmers became landless and houseless. Unauthorized constructions of multi-purpose buildings, which are unsuitable for the eco-system and the fragile land leads to landslides and soil erosion. These landslides mostly affected the farmers of the area. Farmers who are the true custodians and children of the soil suffer due to this cruel act of land lords and the natural furry of mother nature

The temperature of Idukki-region was 22⁰ c at the mid-day at some time in the past but now it has reached to 35⁰ c to 38⁰ c. It has also affected the agriculture of Idukki region. It is a drastic and alarming situation. It is mainly because of the uncontrolled interference in the nature by the greedy modernizations. Most of the farmers now leading their lives through milch animals and have 2 or 3 milking animals to earn their livelihood.

3.3 Governmental and Non-Governmental milk societies

There are two major milk societies in this region. One is APCOS and the other is Malanadu Ksheerolpadaka Sangam. The first is Government and second is NGO based society. There are also other private farms and vendors who procure milk from farmers. The data collected from these two societies shows that governmental society called APCOS collects 63,000 liters and NGO based milk society collects 48,000 Kilograms milk from these farmers. These two societies serve the people by purchasing milk thus holds the farmers from misery, starvation and distress

3.4 Intervention of NGOs

Non Governmental Societies in Kerala especially in Western Ghats of Idukki helps the farmers to maintain their financial security. People friendly Co-Operative banks are opened in Idukki that offers opportunities to the shareholders and beneficiaries to avail loans and other farmer based government incentives like purchase land, advanced machineries or equipment etc. Scheduled bank and Land mortgage banks provide loan for the cultivation, to start agro- based business etc. Government's new rules like Kasturirangan reports restricts the banks to give loans on land mortgage. The new rules hang as a 'Sword of Demetrius' on the neck of farmers.

There are Non-Governmental organizations such as MDS, PDS, VOSARD, World Vision; that are working actively in the study area. The farmers have benefited to a very great extent through these societies. Most of these NGOs insist their clients to have an income generating program like dairy farming, small scale business etc. NGOs also allocate loans to buy milking cows and to run a small shops, etc.

Kerala's annual milk production has reached to around 27.91 lakhs tones in which 22.39 lakhs milk is provided by the Western Ghats. This article further accepts the fact that dairy farmers do not get a fair remuneration for the effort owing to the low price at the grassroots level. It is also a very sad reality the feed cost of cattle feed has tripled over the last 3 years but the price for milk is only doubled during the same period.

3.5 Economic Stability

Farmers of the Western Ghats try their best to be independent and stand on their own foot. Emerging RCEP agreements of Government at the center and land revenue policies affect the economic stability of farmers. Dairy farmers manage to maintain economic stability through dairy income that takes care of the day today expenditure.

4 Methodology of the study

The study envisaged regarding the dairy farmers and livestock system that of the Western Ghats of Idukki reveals that approximately 72 percent of total production is being transacted through governmental and non-governmental cooperative societies. There are 32 Governmental milk societies and 28 non-governmental societies making to a total of 80,000 liters of milk per day in the study area. from Idukki District 10 villages were selected. Vandanmedu, Karunapuram, Udubanchola, Kattappana, Kumily, Nedumkandam, Chakkupallam, Idukki, Ankkara, Kanjiyar are the village comes under Western Ghat. 3 societies from each village are selected. Total 30 milk societies stratified randomly selected for study. 4 farmers were selected from each society. Total 120 members are selected, 60 milk farmers from government based societies and 60 from Ngo based societies.

The major sources of data are primary data – This data was collected by the sample survey, on the basis of structured interview schedule and secondary data – This data was collected from Dairy Development Office, Idukki, Annual Report of APCOS, and Annual Reports of MMPS .Data is analysed using statistical techniques such as Simple growth rates, average, percentage change, chi square test, analysis of variance Microsoft excel 2010 are used wherever they are applicable. Descriptive percentage analysis, Chi-square analysis, SPSS Ford man Ranking

5 Results

5.1 Demographic profile of dairy farmers who procure milk in milk societies

From the chart we can clearly see that the first part of the study is the Age group and we observe that almost 20 persons, which forms 52.5 percent of the sample for study belong to the age group between 36-45. Next highest in percentage is between 46-55 years of age that makes to 29 percent. Age group 26-35-year group stand at third position with 14.16 percent. While the age group below 20 is only 2 percent of the total sample study. For the middle

aged group is engaged in farming because of the various facilities provided by the governmental or non-governmental agencies for the rural development of the area. We can also assume that the middle-aged people might have inherited dairy farming from the older generation. Thus one can sum up that dairy farming is a traditional for most of the people.

Considering the second part of table regarding the Gender we can clearly see that the male participants form 66.6 percent of the total sampling are Male, as head of the family are more encouraged and supported by the female. Third session which deals with the marital status which proves that 91.6 percent are married. They work together in the dairy farming and in the agricultural fields. The fourth session discusses in this table is with regards to educational status. We can see that those who are in dairy farming and have completed secondary education, 58.33 percent, of the total sample for study. We can clearly assume that with their educational background and day to day experience help them to cooperate better in the care of the animals, its management and make maximum use of the opportunities initiatives. They cannot be easily cheated and they can fight for their rights through proper channels.

Regarding their annual income we can say that the second category that is between 50001-99000 stands high with 73.33 percent. This ratio clearly show that the dairy farmers are never on loss and they can well manage their day today expenditure from this income. They are also incorporated in agricultural field. Other respondents who hold one lakh and above is 20.83 percent and below 50000 income persons are only 5.83 percent. This ratio clearly leads us to a conclusion that most people are happy and there are portion for improvement as discussed early.

Table. 1

Demographic profile of dairy farmers who procure milk in milk societies

Demographic Profile		
Age	Frequency	Percentage
<25	2	2%
26-35	18	14.16%
36-45	64	52.50%
46-56	36	29%
Gender		
Male	80	66.60%
Female	40	33.30%

Marital Status		
Married	100	91.66%
Unmarried	20	33.30%
Education		
Non-Educated	10	8.33%
Primary	30	25.00%
Secondary	70	58.33%
Higher	10	8.33%
Income		
Rs. 20000-50000	7	5.83%
50001-99000	88	73.33%
1 Lakhs-2 Lakhs and above	25	21%

5.2 Responds of Dairy farmers about various developments

Looking at the 2nd table we can clearly see that many of the farmers still need to become aware of the various developments taking place. Though some of them are aware (26.66 percent) it is a very small population and insufficient. The Grama Sabha, self-help groups are source to bring about rural developmental awareness. People should be encouraged to become member of one or the other local organization. The awareness about the rural development is an inevitable factor for the future sustainability of life. With regards to the awareness of climatic change, the maximum number of people are unaware of the reality. We can see that the smallest percentage of the people are fully aware of the reality.

Third phase: Intervention of the Governmental and Non-Governmental societies: majority of the people are fully aware of the interventions. We can also see that there are some of these people who aware of these societies but set apart from the milk farming.

Fourth phase of table deals with the awareness of the NGOs in the study area. 48 percent of farmers are fully aware of NGOs intervention. 23.3 percent has medium awareness. 18

percent is typically unaware of the NGOs intervention and 10 percent has minimal awareness about the NGOs intervention. To state the fact that there are a number of social activities organized by the NGOs in the Western Ghats of Idukki. Milk farmers are helped through loans and revolving funds through the NGOs. The NGOs works in the rural areas through SHGs

Table 2 Awareness of dairy farmers about various Developments

Awareness of Dairy farmers about various development		
Rural Development	Frequency	Percentage
Normal awareness	22	18.23%
Medium awareness	47	39.16%
Fully aware	32	26.66%
Not at all aware	19	15.93%
Awareness about climatic vulnerability		
Normal awareness	28	23.33%
medium awareness	31	25.83%
Fully aware	18	15.00%
Not at all Aware	43	35.83%
Awareness about govt.& non-govt. based society in study area		
Normal awareness	8	7%
medium awareness	34	28.33%
Fully aware	78	65.00%
Awareness of NGO's in the study area		
Normal awareness	12	10.00%
Medium awareness	28	23.30%
Fully aware	58	48%
Not at all aware	2	17%

5.3 Sustainability in dairy farming

All the people who are interviewed have the view that dairy farming is a sustainable farming programme for the livelihood of the farmer. Together with agricultural farming dairy programme maintains the economic, social, environmental and empowering sustainability of the society. In the diagram people have on the view that mean score of economic sustainability is 17.15 and the standard deviation is 7.06. The milk which they have produced

is collected by societies. Their product is procured, processed, packed and sold in the market by government or non-government societies. So that there is an economic stability and economic hike. Through the economic growth of the dairy farmers, the economic stability of the society is ensured. The farmers expect a social sustainability as the next step. The diagram shows the mean score 15.71 and SD is 6.69. A social awareness feeling is raised, and initiative to stand for the uniqueness of society is fueled.

For the environmental sustainability, farmers feel that earth is not for themselves but for the next generation to come. Concept of waste management that serves the earth with bio fertilizers is an outstanding contribution of the dairy farmers. They do it by fertilizing the land with cow dung, biogas plants for household, protect the agricultural land with compost. (Mean score 7.86). So we can see that the environment and the soil they live are both saved. Empowerment is the last sustainability the farmers preferred. There are many job opportunities in the dairy farming. The opportunities that are raised should be maintained and used with knowledge-based awareness.

Table 3. Mean score of stability in Dairy farming.

<u>Sustainability</u>	<u>M</u>	<u>SD</u>
Economic Sustainability	17.15	7.06
Social Sustainability	15.71	6.69
Environmental Sustainability	7.86	4.32
Empowerment Sustainability	7.05	4.36

6 Discussions and Conclusion

Dairy farming is considered as the Secondary Economic programme for the rural development in the study area Excessive usage of chemicals in the field affects crops and the farmers sustainability. Farmers came to the awareness that society and the land they live should be safeguarded for the coming generation. Dairy farmers thinks about the economics sustainability of their family and society. The concept of rural economy is viewed not only in isolated segment but also permanent economic system. Farmers are aware about the environment they live. Promotion of rural farming may continue by the farmers if it is in an organized in the proper channel, with high productivity, so that agriculture and dairy farming would be profitable. By introducing advanced technology in dairy farming, farmers can have

an economic stability. The awareness about the eco-friendly rural development is inevitable for the future sustenance of life in the earth. Milk farmers are helped through loans and revolving funds by NGOs. Through self-help groups, NGOs allocate programmes to their farmers to sustain and earn their livelihood.

We can state that in the past five to fifteen years, India has achieved a tremendous progress in the field of milk, dairy farming, and livestock management. An economic sustainability is attained by this White revolution and policies of Government. Rural economy cannot be viewed in isolation. As far as Western Ghats concerned farmers who are engaged in agriculture, milk farming becomes the part and parcel of their life. More than anything a feeling of oneness is enumerated. Co-operative concept of milk societies helped the farmers to be united under an umbrella. Members of local bodies of Panchayat are elected from the members of milk societies in villages. Farmers are getting aware that the society and the land should be prolonged for the next generation. Gradually the farmers learn to think about the economics sustainability of each family and the society Government programmers encourage them to continue in dairy farming. Studies in dairy farming helps economic and environmental sustainability.

Dairy farming system still characterized by small scale, scattered, low productivity, inadequate health care of animal, lack of assured year round remunerative price of the products. Even though these aspects are the threat to dairy farming, farmers still sustains. By allocating more from organized structures, facilities, farmers may continue in their farming and also production may raise high. New technology in dairy farming can be introduced. So that farmers will have the economic stability.

Declaration of Conflicting Interests

I certify that there is no actual or potential conflict of interest in relation to this article. I personally affirm that it is my personal research work without any political or financial interest.

Author Biography

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