

Women empowerment through Dairy farming: A study in Imphal west district of Manipur.

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Abstract

India is the world's largest milk producer and primarily an agricultural society where animal husbandry is the backbone of the national economy. Woman empowerment is the process of building a woman's capacity to be self-reliant and to develop her sense of inner strength. Dairying in India is a female dominated enterprise. It is established beyond doubt that women always participated in dairy and animal husbandry activities in addition to their daily household chores. Women spent more time than men in dairy production activities. The present study was conducted to know the role of women dairy husbandry practices in Imphal district of Manipur State. A simple random sampling technique was used in the selection of dairy farm women. The total sample 100 no questioner was to dairy farm women, 65 were randomly collected from selected villages of Manipur. The selected respondents were interviewed personally with the help of a pre tested and well-structured interview schedule to elicit information. They were actively involved in various aspects of dairy farming activities like care of new born calf, cleaning of animal shed, cleaning of utensils, storage of concentrates, feeding young calf, diagnosis of common disease and care at home level, care of sick animals, watering the livestock, offering the concentrate mixture, soaking the concentrate mixture, care during pregnancy, disposal of infected litter materials, grooming, cleaning and bathing buffaloes and cows. It is also observed that the participation of women was less in enrichment of dry fodder, money transaction like involvement in banking process, purchasing and sell of animals, maintenance of account financial records, maintenance of farm records, involvement in dairy co-operatives and purchasing of equipment's.

Key word: Gender equality, Economy, women, dairy farming.

Introduction

Dairy farmers' production systems worldwide need to be able to combine profitability with the responsibility of protecting human health, animal health, animal welfare and the environment. Dairy farmers, as the primary producers in the supply chain, should also be given the opportunity to add value to their product by adopting methods of production that satisfy the demands of processors and customers. A woman's place in dairying According to the research, 732 million Indians live in rural areas, accounting for 70% of the nation's population. These rural areas, however, still face substantial disparities, particularly in terms of gender equality and women's empowerment. Even so, India has achieved a 74% literacy rate, part of an overall improvement in literacy. The percentage of female-led rural households corresponds to 14.90% of the total, while the percentage of women holding agricultural land remains at about 10.90% (Jain et al., 2023) .Livestock is an important source of supplementary income for over 70 million rural households in India, where over 15-20 percent families are landless and about 70 percent of the landholders belong to the category of small and marginal farmers, income from livestock accounts for about 15-40 per cent of total farm income of the rural households. The contribution of women to national development in the current context and its potential is of greater significance. In India having over 85% of the

rural families are dependent on agriculture for their livelihood. Women play a critical and potentially transformative role in animal husbandry growth in developing countries, but they face persistent obstacles and economic constraints limiting further inclusion in animal husbandry. Women constitute about 69% of workforce engaged in livestock sector. India is the world's largest milk producing country with a share of about 16 per cent in world's total milk production. India is the world's largest milk producer and consumer, and by now it is the world's largest milk-giving herd due to the increase in demand as high income milk and dairy products are consumed more. India has its own special place in the international market and it is the second largest producer of milk producer and milk products in the world. There is a mutually dependent relationship between agriculture and dairy-farming. Dairy farming is an occupation that sustains the economic well-being of numerous women, particularly those living in rural areas and experiencing poverty, in India. Nearly 70 percent of dairy farmers are classified as landless or small/marginal farmers, with ownership of only one or two cattle. A significant proportion of families in India, known as landless, rely partially or entirely on livestock for their livelihood (Das et al., 2020; Mukesh et al., 2022).

The role of women in dairy farming is crucial, as they make significant contributions to household income, nutritional security, and socio-economic empowerment. Around 70% of dairy farmers residing in rural areas are categorised as either landless or small/marginal farmers. In this context, women assume a prominent position in the management of cattle and the supervision of dairy operations. Women play a crucial role in the community, participating extensively and indispensably in a range of activities including harvesting and processing fodder, feeding animals, raising calves, and milking animals. Women's ownership and management of dairy animals not only leads to higher income, but also represents a sense of prestige, independence, and authority over household resources. This empowerment transcends economic domains, enhancing women's self-assurance, self-esteem, and ability to make independent decisions. Additionally, dairy farming provides women with a practical and sustainable job opportunity in their local communities, which can be pursued regardless of their literacy and skill levels. Dairy farming empowers women to make significant contributions to various positive outcomes, such as enhanced nutrition, education (particularly for girls), and the generation of employment opportunities, by increasing their incomes and ensuring economic stability. Women's inclusion in dairy development initiatives is crucial for promoting comprehensive growth and rural transformation. Dairying is one of the important enterprises, which supports the rural households by providing gainful employment and steady income. The importance of milk and milk products for the physical development and well-being of human beings is universally recognized. In India, women's involvement in livestock management is a longstanding tradition and dairy farming has been an integral part of homestead farming system. Dairy farming is closely integrated with family life, farm women play crucial and significant role in livestock rearing but their contribution in livestock rearing has not been given due place as they always remain invisible workers.

In India, women's involvement in livestock management is a longstanding tradition and dairy farming has been an integral part of homestead farming system. Although much of the work related to livestock farming is carried out by women, the areas in which they need training the most are not given due consideration while designing training programmes. Hence, the studies on accessing the training needs of farm women engaged in dairy farming are of paramount importance to the extension agencies involved in rural development. So, the study was undertaken with an objective to understand the training needs of farm women engaged in dairy farming.

Dairy And Women Empowerment: -

Women's rights and responsibilities are encouraged to be asserted privately and publicly through women's empowerment. Rural women in India are still underrepresented, and illiteracy is the leading cause of this. Less educated women can find employment in the dairy industry to support their families. In rural areas, dairying has long been seen as a source of unique jobs. Dairy production is an example of a work that rural households without land can also carry out. Cooperative societies support dairy production by boosting benefits and marketing opportunities. In managing farms, homes, and animals, women are crucial. Successful dairy employment not only raises rural women's socioeconomic level but also gives them a reliable and persuasive source of income. Women play a crucial role in agriculture and animal husbandry development. Even though women make up the majority of the livestock production workforce in India, their work is often unnoticed. Collection of fodder, grazing, feeding, watering, cleaning of animals and sheds, and milk selling are all part of dairy farming. Within the confines of the houses, it is possible. Women are fully employed in the agricultural sector's gender-based labour divisions, while men typically handle all of the work involving machines and dried animals.

Women's Dairy Cooperative Leadership Programme (WDCLP): - The Dairy Cooperative Leadership Program (WDCLP), which promoted women's participation as active leaders of cooperative associations, federations, and committees, was launched as a pilot program in 1995 with the goal of strengthening the dairy cooperative movement. The

milk unions were assisted by NDDDB in a number of ways to carry out WDCLP objectives. The main strategy of the WCDLP program at the village level in the Milk Union was to train a local woman to get her in the right place. Women were asked to participate in the training to develop their secret capacity

Review of literature

A study was conducted on the financial analysis of dairy cattle farming in the Sukomulyo Village, Pujon District, Indonesia by Mazwan et al. (2021). The study suggested three factors influencing the rural youths in farming which are stated as prestige factor that are having the same honour as the other jobs, future guarantee and parental land area. The study further highlights the idea that each family, on average, has 3.5 dairy cattle with lactation. The volume of milk production continues to increase from the 1st lactation to its peak at the time of the 4th and 5th lactations.

Yadeta et al. (2020) investigated on dairy farm record keeping having an account of various activities, events, and materials regarding the farm activities. The study identifies some common types of records in dairy farm such as records of Identification of cattle, financial records, production records, health records, record of agricultural inputs, records of animal feeds, daily farm records, records of farm implements and equipment, Workers and vehicle records. The study further identifies the importance of record keeping in financial planning decisions, providing data for government administrative and extension purposes, assisting in livestock management decisions, and evaluating overall activities of the dairy farm.

Cwalina et al (2020) investigated about the factors influencing the development of milk production in agricultural holdings. From their investigation they found that many factors influence the profitable milk production such as price of sold milk, balance of nutrition, quality of herds, genetic characteristics of cows and proper rearing of calves. The study further shows the influence of modern techniques and methods in the production and development of milk products.

In a study about the participation behaviors of dairy farmers in dairy co-operative societies in Manipur, Priscilla et al (2017) used the double hurdle approach to assess the factors that influence a dairy farmer's participation in Dairy Co-operative Societies (DCS) as well as the intensity of participation in Manipur state. Their study suggested the utmost need of the heavy investment in road infrastructure to effectively link the dairy farmers to the market, awareness about the ways to raise the technical efficiency on their farms, training on milk processing activities, etc.

Aisolia et al (2021) conducted a case study on Friendship Dairy and Agro product unit of Manipur on dairy entrepreneurship development in North-east India. From the study it can be stated that though the major products of Friendship Dairy are available in the markets of Imphal East and Imphal West districts of Manipur and is known to the consumers the market share is comparatively low mainly because of lesser availability of milk in the Dairy on daily basis.

Role of Women in Dairy sector

a) Women play a vital role in the dairy sector of India. Dairy cooperatives provide sustainable livelihood to millions of households in rural India. Several initiatives for empowerment of women are undertaken by Government of India, State Governments and Non-Government Organizations. As a feature of patriarchal society, women's contributions are rendered 'invisible' and unacknowledged in general; it is no different in dairying, livestock management and agriculture. Even in dairy development programmes, the central focus is predominantly on milk, milk products and livestock rather than on women. The scenario is fast changing with the increasing recognition of the dynamic role played by women and the inherent advantages of women empowerment for 'smart' economics and superior society. Studies from a gender perspective on rural dairy women to analyze their progress, problems and prospects at the grassroots are considerably rare.

b) Women play an important role in an agriculture sector in India. Their contribution is more significant and essential. In India Dairying is also the part of agriculture. Dairy production is of great importance for rural economy in India and women contribute significantly to this activity. This research looks at the potential of dairy cooperatives for women's entrepreneurship in rural areas and analyses the managerial abilities and assesses the socioeconomic impact on the members by women co-operative dairy.

Women's empowerment

Women's empowerment fundamentally refers to the ability of women to control their own life in terms of politics and social economy in order to live independently. Women's empowerment is the process of elevating their status within the

social order. Like men, women now contribute to the dairy industry. Women in India currently have the same rights as males and are free to join any service. For the majority of developing economies, agriculture is the bedrock. We are aware that the agricultural industry forms the backbone of our economy, providing the essential components for human life as well as the raw materials for the manufacturing sector. The dairy industry is a subset of agriculture. Farmers in India engage in dairy industry since agriculture is insufficient to support their livelihoods. India produces 18% of the world's milk, followed by the United States, China, and Pakistan. Indian rural women are now adopting the dairy industry as it continues to employ women and improves the financial situation of their families. The Indian government has prioritized the empowerment of women in the nation, and numerous programs have been launched to allow rural women to work in dairy farms.

Women in Dairy Farming

Mahatma Gandhi once stated that villages are the backbone of the Indian economy. The sentiment is supported by research conducted in 2008 by Max New York Life Insurance and the National Council for Applied Economic Research (NCAER). This study found that an astonishing 70% of India's population, which is equivalent to 732 million people, live in rural areas. Nevertheless, in this rural setting, there are still significant discrepancies, especially when it comes to achieving gender equality and empowering women. India has made significant progress in improving literacy rates, achieving an overall rate of 74.00%. However, there are still gender disparities, with males having a considerably higher literacy rate of 82.00% compared to females at 66.00%. In addition, rural households headed by females make up only approximately 14.90% of the total, and female agricultural landholders account for a mere 10.90%. These statistics highlight the difficulties that women encounter when trying to obtain resources, opportunities, and positions of authority in rural communities. Women residing in rural areas of India face a multitude of complex obstacles, such as elevated instances of selective abortion of female fetuses, reduced income, inadequate nutrition, restricted opportunities for education and skill development, and increased susceptibility to domestic abuse and sexual offences. Although they play a crucial role in both the family and the community, their contributions are frequently overlooked. Their responsibilities are often limited to traditional domestic tasks, lacking proper acknowledgement, respect, and accountability in terms of economic compensation. Within this particular framework, the promotion of women's empowerment takes on the utmost significance, not solely for the progression of gender parity but also for the promotion of sustainable development and comprehensive economic growth. Dairy farming is identified as a significant opportunity for empowering women, as agriculture, along with cattle rearing, is the main occupation in rural areas. Farmers have started engaging in dairy farming as a secondary occupation to make better use of available labour and increase their income. This decision has significant effects on the empowerment of women. Dairy plays a vital role in supporting the livelihoods of impoverished women in rural India, providing them with a practical means to achieve economic self-sufficiency and upward social mobility.

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In order to improve women's direct participation in dairy cooperatives, KVKs, Veterinary University and Govt. animal husbandry department should plan and execute need-based training programmes for them. As farm women contributes largely in dairy farming practices. There is a need to conduct a study to evaluate the impact of the dairy centres in improving the dairy farming in rural areas. Cross cultural research can be undertaken to find out the existing knowledge of farm women regarding dairy farming practices. Majority of the dairy farm women performed all the tasks related with dairy at least once or twice a day like feeding, watering, wallowing and bathing, bedding, care and management of calves, housing management of cattle shed, post-parturition care, milking and milk product preparation, while the tasks viz., farm management and accounting, animal health and marketing were not found to be performed by majority of them.

Women in agriculture often concentrate around livestock-related duties, which include:

1. Dairy activities: The role of a woman with regard to dairy farming includes many independently performed tasks for example, including taking care of animals, caring for animal husbandry, managing animal sheds and manure, processing family produce. Milking and processing dairy products are the most common activity among women from wealthy farming households. Those who are members of landless farming households participate equally in all farming activities, whereas those from small and marginal farming households carry out most of the challenges in relation to cattle management and milk production.
2. Breeding activities: There is an active involvement of rural women in various breeding activities, including diagnosis of pregnancy and provision of care throughout the gestation period. This involvement rate is approximately 80%. Despite their considerable involvement in breeding practices, males are typically responsible for the majority of animal breeding practices.
3. Management activities: There is a high degree of active involvement by women on Indian dairy farms, including taking care of calf, preparing milk, maintaining the house, managing calves, making cattle manure, and building sheds. Even so, female farmers play a minimal role in maintaining farm records. The majority of women do dairy production (nearly 90 percent), maintaining dwellings (about 89 percent), handling livestock waste, or making dung cakes about 87 percent. Although most female farmers are involved in farming, their participation in managing farm documentation and shelter maintenance is limited.
4. Feeding and watering of animals: There is a strong emphasis on women in rural farming communities in regards to food and watering animals, including the collecting and storing of fodder, storage of feed concentrates, and nourishment of young calves. It has been reported that 87% of these women are involved in feeding and 85% are involved in watering, with significant percentages also participating in grazing, collecting fodder, grinding grain, and storing feed. As an example, 82.5% of women manage livestock, 80.83% collect fodder, 75% grind grain, and 76% make hay. In addition, 68% of farm women create feed mixtures by mixing concentrates with roughages or fodder. According to these statistics, women have an essential role to play in the management and care of farm animals, emphasizing the importance of their presence in rural agriculture.
5. Other activities: Several rural women are unaware of or do not participate in activities that contribute to their economic well-being, such as recording and obtaining credit for milk production. In spite of playing an essential part of milk production, they have little involvement in economic activities, such as obtaining loans and processing milk, primarily due to a lack of information and exposure. Supporting and increasing awareness of dairy farmers' economic concerns is necessary in order to increase their participation in the dairy industry.

Dairy farming in Manipur

Dairy farming is the system of farming/rearing animals especially cattle and buffalo for milk production either extensively or for family consumption thus providing almost liveable income to the farming family. Moreover, the workforce in this sector is mostly of the women with some regional exceptions such as the Manipur states of India. In the north-eastern region of India 80 per cent of the area is being covered with hills and forests, abundant natural resources such as grasses, tree fodder etc. Despite these facts the dairy farming is not well established. Therefore, this study was espoused to investigate the feedback on feeding-related aspects in dairy farming. They mostly grazed their animals in common property land and fed rice straw. Tree leaves gathering during rainy days for animals, lack of government support etc were some of the important issues raised by the respondents in the study area.

The livestock sector plays a significant role in the economy of northeast India. The income from crop cultivation and livestock production contributed around 68 percent of the total income of agricultural households. Among India's northeast region, Manipur is also one of the top milk-producing states, and dairy farming is a subsidiary occupation in the state. Farmers raise one to three cattle that are fed by agricultural waste and open grazing in the field. The animals are used for milk production and farm labor in their field, and the residues are used as crop farming manure. Despite significant growth in production and returns from dairy farming in many other states, development in the dairy sector is not seen as encouraging in Manipur. This is primarily due to a lack of scientific knowledge about milk production; the producers are small and marginal farmers.

Understanding small farmers' cattle' production and feeding patterns is critical for developing the right production

tactics for dairy farmers. As a result, the study was conducted to investigate the dynamics of cattle production and feeding patterns among small farmers.

Dairy farming in Manipur has Several schemes to support its growth. Here are some of them mention:

Dairy Development schemes:

The main objective of this scheme is to make available clean, disease-free, and wholesome milk and milk product to the public consumers in abundance. It also aims to increase milk production in the state by streamlining marketing of milk-by-milk producers through organization of cooperative societies and self-help group.

National programme for dairy development (NPDD):

This scheme focuses on creating infrastructures for quality milk testing equipment and primary chilling facilities. It also provides financial assistance to eligible farmers for purchasing dairy cattle, construction sheds and training.

NABARD dairy farming schemes:

This scheme provides financial assistance to the farmers, including those in Manipur, for establishing small dairy units, purchasing milking machine, and setting up dairy processing equipment. The subsidy ranges from 25% to 33.33% of the investment, depending on the type of project and farmer's category.

Manipur milk union:

This union provides an assured market for dairy farmers and ensures remunerates price for their milk.

Assistance to Animal Husbandry Co-operatives:

This scheme provides support to public sector enterprises, local bodies, and individual BPL farmers to take up schemes for developing livestock product in Manipur.

Objective of the study.

In this paper, an attempt is made to focus mainly on the following objectives

1. To analyse the present status and the socio-economic conditions of the women dairy farmers.
2. To study the problems faced by the women engaged in dairy farming.
3. To study its impact on employment generation in Imphal West District of Manipur.

Limitations of the study

This study focuses only on women dairy farmers. Who benefited from dairy farming in the Imphal west district of Manipur.

Methodology

The nature of the analysis was based on descriptive study. The primary data are collected through the structured questionnaire by interview schedule method. Secondary data was collected through books, journals and other Publications. A self-made questionnaire was used to collect data from the dairy farmers. The interview did not merely confine to procuring the questionnaires, but also Scheduled open interviews. We visited these respondents and conducted interviews in person. We also enquired about the present problems they were facing. The interview was not merely confined to procuring structured questionnaires but also involved open interviews. We distributed 100 questionnaires to the dairy farmers but collected 65 due to the current situation in Manipur. This simple questioner was used in order to get the required data from the women dairy farmers. However, this was closely followed by informal, open interviews .

Sample of the Study

The study sample consists of 65 from dairy farmers women.

Analysis and Interpretation

There were hundred women dairy farmers in Imphal west district of Manipur. The questionnaire was administered to the dairy farmers who live their livelihood on the dairy products. The data obtained were analysed using percentage analysis. For the questions belonging to women farmers satisfaction, the unanswered questions were considered as negative

responses, i.e., they were not satisfied with the training. feedback and responses obtained from all 65 farmers were presented below: -

Table no .1. Total respondent of dairy farmers

Total no of respondent	Yes	No
65	65	NIL
%	100	NIL

Sources: Field data/Report.

In Table no. 1 clearly revealed that 100 percent of respondents agreed that dairy farmers contribute economic development for many urban dairy farmers in the study area. This is a major contribution of dairy farmers for growth of urban economy in Manipur in general and study area in particular.

Table No.2.Employment facilities after joining dairy farming.

Total no of respondents	Yes	No
65	65	NIL
%	100	NIL

Sources: Field data/Report.

Table no 2 shows. The operation of industries dairy farmers in urban area are helps to develop entrepreneurship and started their earning. It encouraging and motivating them to set up micro and small-scale industries in the study area/Particular area. When people start micro and small-scale industries in their area automatically socio-economic conditions of that area would improve. The entrepreneurs' development is one of the most important elements of economic development of urban area in the state/country and world as well and entrepreneurial competent makes all the difference in the rate of economic development. Likewise, progress of dairy farming industry is study area will definitely contribute economic development. After Joining this dairy farming, they can start their earning in their home and localities etc. They can earn this knowledge of dairy farming they can sell dairy product such as, paneer, milk, ghee etc. They formed group and practice their skill and share about the importance and need of dairy farming and earn as well as make themselves employments and give others employed also.

Table No.3 Self-dependent economy

Total no of sample	Yes	No
Do you agreed Dairy farming provide Self dependent economy	50	15
Percentage%	76.92%	23.08%

Source: Survey Report/Data.

Table no 3 shown 50 of the dairy farmers agreed dairy industries can provide them employment as well as increased their economy, 76.92% yes and 15(23.08%) No. The dairy industry is an industries, urban industries or agro-based industries which is suitable for urban people for their livelihood and this sector provide supplementary income for the urban people after agricultural products and became a source of inspire for entrepreneurship development in the urban area. In the study area, particularly in the Imphal west district of Manipur 70 percent of villagers are doing dairy farmers business, therefore, 50 percent of local products in the area are, ema keithel(Market) and khwairaman market which is the large women market in Asia and are generated from this district by selling dairy and their dairy product. They are engaging production activity by forming Cooperative society and even taking up at individual level. The dairy products like paneer (local sangom sana) which is eaten by local in every occasion as well, milk (local sangom) and Vermi composed made from cow dung which is used in local kitchen gardening as manure which are usually available form village in the markets.

Table no 4. Income level of dairy farmers

Increase income level	Yes	No
Total numbers of respondent	65	NIL
Percentage%	100%	NIL

Source: Survey Report/Data.

Table no 4. indicates that 65 (100%) of dairy farmers agreed that business on dairy farming business income level of people is drastically change in the study area. However, majority of urban dairy farmers income level is increased and got source of income to manage the family affairs in the daily basis. During the survey time they said that dairy farming activity is very friendly nature and can established/start with small amount and low risk in comparison to other business activities and also with the help of co-operative society as well.

RESULTS and DISCUSSION

North-eastern states have a green economy. The tribals of the region claim ownership of their natural resources. Problems arise when it is correlated with the dairy sector particularly in the north-eastern region of India.

CONCLUSION

It has been found conclusively that the dairy farmers in the study area had less interest as per commercial dairy farming was concerned. Most of them were keeping animals for their household purpose only. Therefore, all the feedback given by dairy farmers of the study area in Manipur was directly proportional to those parameters. Common property resources were the common field to graze their animals repeatedly. Lack of proper implementation of government schemes to the dairy stakeholder was the second most challenging in the state. As the dairy farmers kept minimum number of animals out of which if one animal was under milch condition then it was more than sufficient for the family consumption. Rice straw was the basic source of feeding material all the time as expressed by the respondents. It was observed that the dairy sector in the study area was restricted. It could be due to the people's mind-set and other long back traditional and cultural factors. The dairy sector would grow up only if the farmers had interest in consuming milk and other milk products. For this the government institutions such as state agriculture and animal husbandry department, central dairy-related agencies, non-governmental organization etc need to work shoulder to shoulder for the upliftment of the dairy sector.

Dairy farming in Manipur has immense potential for growth and development, considering the state's rich livestock resources and favourite agro-climatic initiatives implementation by the government and others organization, dairy farming has become a viable livelihood option for many rural households, particularly women. Being powerhouse of sport Manipur need to increase or encourage and more Dairy farming because its useful and essential source of food for the sportsperson in the state of Manipur.

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