



## Feminisation of dairy farming or distress? Tracking the progression of Women in Dairy farming in India

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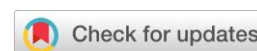
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**Abstract:** *Dairy farming is integral to the economies of every country, providing employment and income for millions, especially those dependent on small farming. The dairy sector forms an essential part of the agricultural economy, contributing 9% of the total agricultural produce and offering livelihood to about 80% of the total farmers in the farming community of India. It is a mix of urban and rural agriculture which acts as a backbone in the socio-economic fabric of the country. In India, the agricultural sector has been subjected to a gendered division of labor. Women have always played pivotal roles in dairy farming because of the nature of the agriculturally based lifestyle they share with the males of this society. Over the years, women have traditionally managed a variety of animals on the farm. This has, of course, included milking cows during different time periods in history. The styles of dairying have changed physically but the roles of women in dairying have not. Even in these times of transition, more and more women from urban lifestyles are choosing dairy farming as a way of life.*

**Key words:** Dairy farming, Gender Disparity, Gender Discrimination, Challenges

### Introduction

The dairy industry is sustainably and successfully operated because of the role women play. In this article, women discuss the challenges they face, their contributions to livestock management, milk production, processing, marketing, and advocacy for gender inclusive policies, and the importance of recognizing and supporting their contributions. India is both the world's largest producer and





consumer of milk (U.S. Department of Agriculture, Foreign Agricultural Service, 2021). There are many aspects to dairy farming that women contribute to, making their role in the industry unique and diverse. It is widely believed that more than 70 per cent of cattle in the villages are owned by women. A significant portion of India's agricultural production is accounted for by the dairy sector, and approximately 70% of rural populations participate in milk production (Cunningham, 2009). Furthermore, dairy production in India is a major source of employment and income for small-scale farmers and rural households (Cunningham, 2009; Squicciarini et al., 2017). It is very important to understand the role of women in dairying and how their decision-making capabilities concerning dairying contribute to the growth of income. Women are often responsible for maintaining ownership rights and management to guarantee family control. The majority of women head their households as a result of circumstances (death of a spouse, divorce, separation, or never married) rather than by choice (Chudgar, 2011). This paper focuses on the specific role to be played by new entrants or existing players and the factors that may affect women's participation in dairy farming in Haryana. The base year of the study is 2003-04, which is an era of the Indian economy post-economic liberalization.

Rural economy. With the introduction of Operation Flood (OF) in India in 1970, small-scale dairying commenced amongst small farmers, mainly by women within their household corners or backyard pondages in virtually all the states of India, including in the state of Haryana. The economic vulnerability of female-headed households is greater than that of male-headed households, since women typically earn less income, have a greater dependency ratio, and complete fewer years of education than men (Flatø et al., 2017). After the successful implementation of OF, the number of pucca houses of the actual milk producers in Haryana increased from 1,832 in 1967-68, the pre-OF period, to 117,443 in 2005-06 when West Central States Dairy Development Programme (WCSTDDP) Phase I was going on, which recorded the highest growth rate of 6.19 per cent in the actual milk producers. However, the growth rate of actual milk producers was 3.71 per cent in 2006-07 and 1.79 in 2007-08.

## 2. Challenges Faced by Women in Dairy Farming

For instance, if a woman has to use various social gatherings and visits as her marketing outlets, would it be sustainable without creating stress and family tensions? Creation of paid employment





opportunities for rural women on a decentralized basis can be the most feasible anti-poverty strategy. A policy for efficiently managing rural labor markets is an essential input suited for the specific age-groups and employment needs of poor women to support women in labor-intensive, low-skill activities such as dairy farming. Many female decision-making households are structurally disadvantageous, as they have lower levels of education, fewer plots, and fewer assets in value. The results of this study indicate that female decision-making households invest less than the other two types of households that make decisions (Gebre et al. 2021). Women seem to be particularly responsible for ensuring the welfare of the family, children, and the elderly, in addition to ensuring the best use of the family's scarce resources on a limited household budget, which is under the management of men. Animal-related activities were primarily performed by women (94.000%), whereas animal-related activities were performed by 82.67% of women (Rajpurohit et al.'s (2020). To improve the productivity and profitability of small farm dairying, more professional organization and technical manpower inputs are needed.

Busy with farm-related operations such as plowing, sowing, weeding, and harvesting, women can find it daunting to manage work at home, including the kitchen, cleaning, and looking after the family, as well as on the animal farm. Unless livestock husbandry is recognized as an important subsidiary occupation, its potential to augment small farm family income would remain understated, and it may not be possible to harness livestock genetic potential to the fullest. How to cope with these challenges is a burning question. Empowering rural women through self-help groups, together with capacity building training in dairy farming technical know-how, is essential. As is the case with employment outside agriculture, household chores do not generally decrease substantially if a farm woman is employed off-farm within agriculture.

### **2.1. Lack of Access to Resources and Technology**

Gender-blind extension workers, subsidies, credit, backward and forward linkages, and markets further neglect women. Credit is an essential and common resource in any economic activity. About 50% of rural women are landless laborers. In livestock rearing, goats, poultry, and domestic animals like cows and buffalo were reared by resource-poor women living in hilly and tribal areas where surplus labor (male laborers) is not available due to out migration. A small number of animals were maintained by resource-poor and some poor households similar to sheep and cows





and buffaloes in India, where scarcity of grazing and household women contributes to managing animals, rearing calves, and creating marketable items like ghee and milk from cows. Women's participation in agriculture is recognized in agriculture when women farmers actively participate to develop their knowledge and gain access to new and necessary information, making the most of that information available to them in their agricultural activities. It is possible to achieve socioeconomic progress among women by linking the knowledge and information flows (Dhaka et. al., 2012).

Despite their pre-eminence as primary producers, women have been a neglected lot, facing gender-based inequality for generations. As a result of this discrimination, they continue to remain weak and vulnerable. The male members of the family are the decision-makers, which compounds the exploitation of women. Their main problems are those of accessing knowledge, getting credit, fair terms of trade, and negotiating with authority. According to, field veterinarians in Jammu district, Jammu and Kashmir, identified constraints related to mixed dairy farming from a constraint analysis. The field veterinarians surveyed the farmers regarding their knowledge of balanced rations, their lack of interest in animal husbandry, and their limited knowledge of marketing strategies as their most significant limitations in mixed dairy farming systems (Beig et al. 2021). Women not only work as agricultural laborers, but they also manage their farms independently, be it crop production or animal husbandry. In addition to being integrated parts of households, rural women constitute a significant part of the agricultural labor force. In dairy farming, women play a significant role in carrying out livestock management activities from morning to dawn and are responsible for the maintenance of livestock for community livelihoods.

## 2.2. Gender Stereotypes and Cultural Barriers

According to an important socio-cultural constraint is shyness and uneasiness in interacting with the public and male functionaries. But effective dairy farmers have been provided training and exposure to develop entrepreneurship qualities and the necessary communication and related skills to exploit various livestock-based and other economic opportunities that come by. In the study area of Kumha Faridabad, only one low-educated, articulate, and foresighted lady was seen. She weighed the benefits of dairy farming against petty shopkeeping and rural food kitchen. Therefore, it would be wiser to have separate training or training at the same time for men and women to have





more real and live interaction. Long-term and continuous refresher courses, including field visits, always leave lasting impacts. Such training and refresher courses broaden the horizon and make leadership build a collective response in the form of cooperatives. Rural women were asked about their training needs related to improved dairy farming practices. Housing facilities were the most popular training area (first ranked), followed by health care practice, fodder production, financial practices, breeding practices, marketing practices, feeding practices, management practices and milk product preparation (Sharma et al. 2021).

Key findings from the study reveal that even for managing livestock, there is a lack of women's skills. The study showed that out of 70 female respondents who had mobility up to intermediaries in society, only 23.9 percent had the skill for cutting and carrying fodder for feeding livestock. Only 30 percent of women had the skill to clean up the byres of cattle. Around 31.4 percent of women had the skill to milk the buffalo, and 45.7 percent of females had the skill to collect manure from the byres. These constraints could be dealt with through training and awareness.

Gender stereotyping and the cultural ethos that describe females as domestic beings only and males as the head, as well as the breadwinner and the representative of the family, serve as significant barriers to involving women in farming. In the same vein, men and society consider women not to be technically expert as men. There are very strong social taboos or cultural barriers against women working with animals on the farm, while dairy farming is mainly associated with animal husbandry.

### 2.3. Limited Training and Skill Development Opportunities

The sample women dairy farmers also expressed their opinion that dairy departments and dairy research institutes should develop activities to address their problems, such as seed shortages, feed and fodder threats, lack of training and extension skills, lack of marketing information, lack of door-to-door banking services, and inadequate credit facilities. The report indicates that women play an important role in livestock rearing, yet their contributions have been regarded as insignificant and not adequately considered, despite their essential role in livestock rearing. It should be encouraged for rural women to participate in activities such as livestock marketing, selling, and purchasing, since they have limited access to technology, extension services, and women farmer organizations (Dudi et al. 2019).





Dairy departments and dairy research institutes should also create provisions for supply chain management of dairy products. Furthermore, the facilities related to these issues need to rationalize the existing national and rural employment guarantee scheme and other works to diversify household-level work. It is even more important to motivate and train women dairy farmers to acquire dairy farming skills, empower them through microfinance, and provide access to other self-entrepreneurship interventions, both collectively and individually. They should strive for a balanced approach and express their equal importance for dairying compared to other non-traditional occupations while participating in development. India's livestock industry and the challenges it faces are important to the women involved.

In generating a skilled and qualified workforce in the dairy sector, it is imperative to integrate dairy education and training at all levels in order to minimize practical problems in this sector. The statistical data shows that 14% of women dairy farmers attended dairy-related training programs. 40% of women were involved in milking, churning, curd, and ghee preparation, while 31%, 5%, and 4% were involved in feeding, cleaning, and washing dairy utensils. Since women dairy farmers do not receive enough training in dairy-related activities, it hinders their ability to become more skilled effectively. There are a few courses available for dairy-related education. Some universities offer degree and postgraduate courses in Dairy Science, while others offer courses in Veterinary and Animal Sciences. Given the increasing demand for quality dairy products in the rapidly expanding dairy industry, it is imperative to develop and modernize the curriculum in dairy education and training to create employment opportunities for rural youth in dairy, value-added product development, and entrepreneurial ventures in dairy processing.

### 3. Initiatives to Empower Women in Dairy Farming

To obtain good economic returns from rural livelihood activities undertaken by rural women, it is important to empower them by providing adequate information on micro-credit, rural communication facilities, better training facilities, storage, processing, pack measurement, marketing, etc. The various forms of empowerment include awareness generation, capacity-building, extension support through participation in training analysis, and through the participation of women in decision making. These certainly help to recognize the benefits of enhancing dairy productivity by scientific management. A constraint is an obstacle encountered by dairy farmers





when adopting day-to-day animal husbandry practices in their dairy enterprise. As a result, easing the constraints in scientific management is likely to increase the profitability of dairy farms (Manohar et al 2015). However, the present study found negative outcomes of the empowerment level of the women involved in dairy farming.

Initiatives to empower women in dairy farming. There are some programs being organized by the government for women empowerment in the livestock sector, which includes dairy farming as well. Some of them, such as Rashtriya Mahila Kosh, provide micro-credit. Swaranjyanti Gram Swarajgar Yojaya (SGSY) provides credit and subsidies for women engaged in dairy farming. However, these programs, despite having different aspects, lack successful implementation. Most of these programs do not address the infrastructural needs for dairy farming, which is crucial for women engaging in the dairy sector as traditional work is not reduced even after diversification. There are a few independent organizations that work for women empowerment in the farming sector. This includes several collaborative works with government bodies, where only a minor portion is engaged in dairy activities.

### **3.1. Financial Support and Credit Schemes**

In the present study, it was clearly observed through actual observations in the case of accredited woman dairy farm operator, Sh. Abdul Karim, a retired DY CDO, that a credit scheme worth Rs. 50,000 had been taken under the DRI scheme and he also provided technical support to the women along with day-to-day wages to expedite the household higher education process at a rapid pace. This motivational and profitable step of this reputed officer in providing female nominees with this package was highly commendable, as lands are seldom available to women farmers for undertaking advanced animal husbandry practices. The unit with 40 cows, with another nominal 10 cows pending issue unit, had three educated women who prepared various value-added milk products, ice creams, and kulfi with the milk produced by the unit. After consuming a certain quantity of products from the unit, the marketer of the raw milk products fixed the average price at Rs. 200/kg approximately, and a monthly drawing and margin of profits were distributed among these rural educated female nominee dairy farm entrepreneurs of Haryana. In order to run the unit, she also took financial help of Rs. 50,000 under the DRI scheme. Selective women were also





invited to various programs related to agro extension work, farm women club, SHGs, haats, etc. where women were also appreciated by the public.

The role of financial support in developing businesses among women through their skills and involvement in entrepreneurial activities has been revealed by various studies. In the present study, it was found that 65.00 percent of dairy farm women were educated, and their household per capita income (Rs. 1990) was higher than the average household per capita income of Indian rural households. The literacy rate of cattle rearers in households was suggested to be higher in states other than Haryana. However, in the state of West Bengal, women involved in family labor were found to be illiterate. The impact of specific credit schemes like DRI, etc. by banks was also observed on dairy farm women. In addition to providing technical staff to train them, increasing the availability of credit linked schemes and providing adequate loans was also found to be a significant factor in promoting dairy farm women.

### 3.2. Capacity Building and Training Programs

While there is a lack of formal education, awareness about women's participation, capacity, and capability among farmers has increased. An analysis shows that only 1% of women who own large dairy farms have received any kind of training, while women who own around 100 cows have received the most training. Therefore, they are more knowledgeable in certain aspects of dairy farming compared to women who own other categories of cattle. This can be attributed to their identification by the credit co-operative federation (CCF) as chairpersons of different milk unions, with the assistance of the National Dairy Development Board (NDDB). Due to their direct involvement in the dairy business, they need to be properly focused and educated. Most of the women enrolled in training programs only received exposure through scheduled village visits, and only a few women who were selected as members of corporations/agricultural forums had the opportunity to avail services after their employees had returned from the field. For both knowledge and skill-based training, housing as the most preferred major farm operation, followed by feeding and management. Among the subjects covered under housing, the farm women most required training in designing cattle sheds for knowledge as well as construction of scientific low cost cattle sheds for skill. (Singh et al. 2020).







Women, mostly dairy owners, have little or no formal education, with education typically ending at middle school. Illiteracy is particularly prevalent in Haryana, where 30% of women are illiterate, compared to the national average of 39%. This lack of education creates a disadvantage for women in terms of their involvement in large-scale dairy farming and their ability to make decisions about day-to-day farming activities and related businesses. It has been observed that women show more interest in the management and technical aspects of their enterprise compared to marketing, finance, research, and development. According to the data collected, only a few women have had the opportunity to visit farms in other states or countries. The most common types of training received by women are on-the-job training and exposure to dairy complexes. Women, as well as members of credit self-help groups (SHGs), have received training through capacity building workshops to ensure their participation in various business-related activities.

### 3.3. Awareness Campaigns and Advocacy

During the 2004 Milk Day Observation and Cattle Show in Nain and Rajokri, NDRI marked the importance of women in the field of dairy farming by arranging a women's parade. In this parade, rural women coming from different states of the country through theme dresses on the themes like dairy cooperative, public health, and health of other animals are witnessing their awareness, so this work was completed. In the parade, 60 women from Haryana (Ambala, Bhiwani, Ch. Dadri, Fatehabad, Gurgaon, Hisar, Jhajjar, Jind, Kaithal, Karnal, Kurukshetra, Mahendragarh, Mewat, Palwal, Panchkula, Panipat, Rewari, Rohtak, Sirsa, Sonipat, Yunethnagar) were from Yamunanagar), 30 from outside the state (Rajasthan - 6, U.P. - 13, M.P.-5, H.P.-2, J & K, Kerala, Orissa, Daman & Diu – 1 each) took part.

Awareness may be raised about the potential of dairy farming in promoting women farmers through a variety of new and ancient traditional systems like Raiton Ke Parampara, Joint Farmers Organization, and Rural Ecofriendly Practices with Old Age Legacy, Advancement of Indigenous Techniques in Routine Life, etc. These and many such concerted efforts, innovative models that incorporate collective action, whole community-based traditional resource management practices could find entrepreneurs having a "Tryst with Destiny". A number of marketing and manufacturing networks may be evolved to ensure safer and natural food on our plates and promote such gifted courageous true workers, who are our cause and celebration in milestones, the women farmers.





Sensitization is necessary about the reality of women dairy farmers serenading farm economics with their life-giving milk and making our lives healthier and richer.

#### 4. Impact of Women's Involvement in Dairy Farming

Dairy farming is the main supplementary activity of women in the state. There are 20.24 lakh households involved in dairy farming in the state, where 60 to 65 percent of the rural population in the state is involved in dairy farming. On average, 8.35 lakh labor days are required in addition to the normal workload. Women performed around 5.40 lakh days out of the total 8.35 lakh days. Small to marginal farmers were shouldering the major work of the rural women apart from female labor work, as the majority of the dairy farmers were small-scale labor work, housewife activity, breeding, management of fodder and fodder seeds, calf and kids barn pavilion, incumbent, ale/pet peny, and other activities. Among the activities, honesty found the top of the list with a mean score of 2.55, followed by wash as handling (M-2) in (2.30) and record maintenance as handwork in grass field items alone with sporting of feed door and cross turning have the least mean wearing women's activities. It could be increasing but jor approach employed by many women in all dung's give access to them valuable annum to various day-to-day happenings in their village life or both to understand their role in decision making process is around the females were involved in Lemme process related to household affairs. Ollies also women were involved in the case of livestock with purely very limited involvement in both family and Legitovation in remaining are also activities are alike calving, distancing, budding, disbudding, towing, and washing lower accounting of vast it in dairying activities.

Women's involvement in farm and allied operations has a number of positive effects. In India, women's involvement in dairy farming has been recognized by different researchers, and they concluded that women are more efficient as compared to men in dairy farming activities due to their expertise and experience. Wilkes reported that women enrolled as participants in dairy farming projects performed better in animal production and reproductive management. Hence, the success and potential of dairy development programme in the rural areas is to a great extent based on the production efforts and ability of the rural women, which in turn depend upon their level of association, cognition, and knowledge of the package of practices and their societal perceptive level.





#### 4.1. Economic Empowerment and Poverty Alleviation

Create self-esteem - The dairying interest brings about the economic improvement of family wages and creation of self-respect for women producing economic economy. Each hour helps in improving women's participation in farming. Moreover, 84.25 health consequences of the household overall, i.e., health outcomes shared by the married experts, while they are underpaid unhealthy women labor good saree, T-shirts, and irrelevant employment in their career using the trend among women otherwise than going according to the architectural properties of colloquial textile market. Improved health status has a direct impact on the status of women. Approximately 50 per cent of Indian women's total job support is in connection with agriculture. Finally, services, including homemade products from domestic activities, which depend on women.

Under the provision of economic empowerment, dairy farms are essential so that easier jobs can be done by women, who are passing time in domestic health, which are the backbone of the economy of India from which agriculture, industry, and services are three main sectors. Women are effectively influenced by dairy business. In Haryana, women are directly involved in dairy farming because of their family members. But the major limitation of women is the non-possession of farming equipment, i.e., good feeds and supplements, sometimes finance also through self-help farming. In India as well as in Haryana, animals or any financial assistance receives major financial institutions like the National Dairy Development Board (NDDB) and Haryana Livestock Development Board (HLDB). The indication of various surveys and research works reflects on the participation of Haryana in dairy farming. The studies provide a light on women's behavioral attitude and their participation in the dairy business.

#### 4.2. Improved Nutrition and Food Security

The income unlocked through dairying contributed to an improvement in diet in both the pre-dietary quantity and thankfully diet quality. This study showed that dairy farming has not only improved the family's socio-economic situation but also empowered the women dairypreneurs. It has provided economically productive opportunities that have made a mark in the public, private, and voluntary sectors to attain socioeconomic equity. Women who are engaged in dairy farming should be positioned in recognized organizations that offer financial aid and knowledge so that they can make the most of their economic opportunities. Becoming economically independent





could contribute to the short- or long-term aims of replicating resource availability, main income production resources, and poverty alteration practices.

Women, especially in developing countries, play a significant role in small-scale agriculture and the agricultural trade alongside their domestic duties. Dairy farming or management was initially a motive for rural women to ensure milk supply for their families. Later, it improved nutrition and food security, income generation, and repayment of loans due to surplus milk and milk products. The money generated through dairying empowers women relative to their position in family and community matters. Income from milk production and unpaid family work has been found to improve household nutrition and provide visible benefits to both women and men.

#### 4.3. Women's Empowerment and Social Transformation

The development of the dairy industry in the country requires a substantial improvement in the marketing mechanisms of milk, and one of the methods to achieve this is to increase competition in the marketing. Additionally, it has been observed that milk prices fluctuate with the seasons on the market (Shah 1998). The involvement of these women as milk producers at the village level is pushing the supply of milk to DSU capacity. Earlier, there were only 2-3 milk contractors who are now facing severe competition from other female relatives of Simpkin members. The contractors, whenever faced with problems like adulteration, could look forward to members' assistance just to procure milk from their homes, and the entire Simpkin members' status towards the milk contractors helped other village contractors who were traditionally procuring milk from the village community for the dairy. All these women share the same milk marketing agent and milk contractors with neighboring villages, and all were Sarpanch ignorant, and hence milk contractors were at a drawback at conflicts, and villagers were left with no timely milk price notification. This scenario again strengthens the support that these simple, called Tom Simpkin practices, offer in a demand-led approach, merging with supply-driven and alarming situations for the dairy development of Haryana state. Women's involvement in opinion and action in heritage villages. Lady families, unlike others, play a significant role in dairy operations at the grassroots of Simpkin and are the actual faces of the economic empowerment process. Their motivation to become members has actually been successful in promoting all possible alternatives in enhancing rural sustainability.





Women's operation of dairy farming seems to empower women. The change agent brings social transformation. Women's involvement in dairy farming extends beyond the household to commercial milking operations. There is enough evidence that women have developed capacities as entrepreneurs. Tom Simpkin's practices help them in self-expression and there is less pressure on husbands and other family members who were traditionally engaged in the procurement of milk for sale. When interviewed, the women shared that they were earlier totally dependent on their husbands and parents-in-law for their expenditures and even the education of their children. This realization has made them active decision-makers in the family. However, the actual use of income earned by women was jointly used by both husband and wife, unlike neighboring villages where income earned by women was first contributed towards the procurement of their jewelry. This clearly indicates that the level of income earned by these women commands respect from the whole family and that simple households can rise above stereotyping.

### **5. Government Policies and Support for Women in Dairy Farming**

The Constitution of India has undertaken much to ensure equality of women vis-à-vis men. In addition, the government did take steps to transform dairying into a feminine enterprise and has started providing special entitlements such as a dairy shed to rural women across the country under centrally sponsored schemes. The government of India, in partnership with the International Bank for Reconstruction and Development, has contended that, fired by such documents, the government of India is conscious of the gender-related matter in agriculture, stating that investments in these projects can transform liquid surplus into an important enterprise, crucial for women. Joint projects could be formulated to empower women, the country's customers, as per search reports providing more employment opportunities in rural India, meaning thereby provision of lease lands with a credit linkage facility for women in the rural area received due to facilitating support. In addition, the question of the benevolent interventions of the governments and nongovernmental organizations has been scarce, the data on the consequences of public policy measures by the government, or the government has to increase women's employment in the process by providing guidance on the financial aspects of women's entrepreneurship programs initiated to promote dairy husbandry.





In India, dairying has been recognized as an instrument for linking animal husbandry with agriculture. Subsequently, the issue of gender has taken center stage in the policies related to dairying. The Indian government, recognizing the gender-sensitive nature of women's employment, has started taking significant measures to enhance women's participation in the process on a wide range of dairying activities. The government of India, under its various policies and programs to transform dairying into an affluent enterprise, aims to promote women's employment on dairy farms. India, despite being a signatory to various international conferences and agreements dealing with women, is still struggling to provide them with deserved justice. Despite the concept of Operative Dairy Unit or Economic Dairy Unit being developed way back in the 1960s, these recommendations were not strictly followed, resulting in overemployment in dairying. Women's dominance in dairying has been viewed from a multifaceted angle—cultural, traditional, and attitudinal; hence efforts were made by the governmental and nongovernmental agencies to transform dairying into a profitable enterprise for rural women. The recent National Agricultural Policy of the Government of India stated that "To make agriculture viable, women farmers necessitate equal social security and support services".

### 5.1. National Dairy Development Programs

Women are engaged in informal dairy activities encompassing a wide range consisting of tender care of dairy animals and calf rearing, feeding and cleaning, milk production, processing, marketing, milk products-making, and supply. The NDDB has highlighted the potential of dairy activities to turn around the lives of women. Through cooperatives, they can collectively enhance the relative autonomy of women in proton and money decision making and promote gender relations, recognizing their unpaid labor input and giving them support in accessing training and interacting with their male counterparts so that women's marginal status in the family and society improves.

National Dairy Development Program is a major step towards the development of dairy in India. It was started by the Indian government in 1970 for the dairy sector and was programmed by the then successive Five-Year plans as a rural-oriented program. It was launched under the pioneering guidance of Dr. Varghese Kurien in pursuit of social, economic, and independence at the grassroots level. The principle of NDP was to organize and implement certain interventions at the grassroots





level in the field of cows, focusing on the improvement of breed, feeding, and health care to enhance milk production. The real strength behind the success lies in the formation of cooperatives, by organizing women and men dairy farmers. On one hand, the cooperatives were set up to organize the dairy farmers in villages and offer guidance and services needed by a dairy farmer. These cooperatives were affiliated with their respective milk unions who procured the milk supplied by hundreds of societies. It can transport and pasteurize in the union's dairy plant and market in urban downstream. The cooperative system benefited dairy producers and consumers alike. In the period of 30-35 years, dairying has emerged as an attractive and independent livelihood option for millions of farm families.

## 5.2. State-specific Initiatives and Schemes

Haryana - "Mass Marriage Scheme for Daughters of poor widows, destitute, laborers, and Divyaangs" - Every year 5100 such women or their daughters will be provided assistance, 5100 women covered and 5100 numbers of women to be covered every year with SHEO - ₹5152.21 lakh in grants. - Unwal Samaj Kalyan Trust's under Planet Peace Sanctuary, Pataudi ₹2000/- per month as financial assistance. For cattle feed/medicines/other essential items for the cattle, 0.75-acre of agricultural land is to be provided under MMLAD/Vidhayak Nidhi. Increase the financial Assistance of Divisional JE - ₹10500/- - SSA and dispatcher vide letter No.19785-816 dated 24-11-17 - Educated unemployed youth to intend to start dairy farming for unemployed youth. Reduce Gypsum rate - Earth Guard ₹1/- PMTU89020. Retirement Assistance to the Employees of the Board with more than 20 years of services - Retiring employee with none of the family members in Govt. service may be advanced by the President/director for ex-gratia and other legal benefits/amounts Package for farmers' welfare by increasing number of beneficiaries of SC Loan in consolidated loan group scheme from 20 to 30 for equating with lead bank and generate more income to farmers' package for farmers' welfare.

5.2.1. Government of Haryana Schemes. The government of Haryana has included a number of schemes for the participation of women in dairy farming. In May 2016, the Government of Haryana raised the benefit given to the classes of destitute women, disabled women, women deserted by their families who are above 60 years and poor widows from ₹1500 per month to ₹2000 per month. In FY 2018-19, in the year 2017-2018, the rate of annual assistance to the





bereaved women/widows had been increased from ₹2000 per month to ₹2100 per month and ₹2400 per month in FY 2018-19, ₹2700 per month and ₹3000 per month in FY 2021-22 and FY 2022-23. The Government of Haryana initiated the Mukhsakkrashri Yojna for women who had been deserted by their family and were above the ages of 60.

## 6. Strengthening Women's Access to Resources and Technology

The present study clearly depicts that women's involvement in dairy farming is evident, but the magnitude of their involvement in dairy farming indicates some variations in social and economic benchmarks, such as household size, income from dairy farming, women's contribution to family income, women's participation in technological services provision, contribution in the preparation of concentrated feed, decision in the adoption of improved technology in dairy farming, association with progressive dairy farmers, personal constraints, knowledge of breeds of animals, knowledge of Kisan Sewa Kendra (KVK), knowledge of purchasing artificial insemination (AI) straws, knowledge of primpera milking, and knowledge of loans from KVK. It was also observed that 47%, 40%, and 13% of women benefited from making concentrated feed, using artificial insemination for crossbreeding, and holding veterinary check-ups, respectively. Thus, the study also pinpoints that 40% of the benefits were from the members of the institution (KVK/VT) and 13% were from veterinary doctors, showing that the role of women has not been fully utilized in technological know-how.

In the present scenario, scientific and modern farming practices, along with the application of new technologies by farmers, contribute significantly towards increasing productivity on one hand and reducing the cost of production on the other. These practices also alleviate drudgery and improve the lifestyle of the farming community. This has been achieved in developed western countries by involving female members of farming families in farming and allied activities. However, for Indian agriculture, involving women does not appear to be novel, especially as 80% of women are actively involved in the agriculture sector. In the present scenario, though modernization of agriculture and application of new technologies has been accepted, women are generally not directly involved in decision-making processes and hardly benefit from the resources and technology services provided by various development agencies, thereby making them at the lower rung of farmers. Recognizing the contributions made by rural women in agriculture, this article tries to identify constraints faced







by women in utilizing various agricultural resources and accessing technological services in farming.

### **6.1 Promoting Gender Equality and Challenging Stereotypes**

In the context of South Asia, empowerment of women has strong implications for the countries of the region jointly hold "half of the world's farming women". Women carry out 60%-80% of agricultural labour in different countries and play full, equal and effective roles in several dimensions of decision making in the farm enterprise, including various farm work activities. According to Kabeer, 2005, "Agricultural work represents the second most important source of incomes for rural out-of-school children (girls and boys aged 6-14) and schooling status is significantly positively associated with household involvement in cash cropping". In India, 5% of the operational holdings account for 65% of the crop production. Moreover, 85% of female workers in rural India work for a paltry 5% of the households and their employment is more insecure than that of men since it typically falls outside the purview of labour laws.

Thividari Upliftment Programme has been described as a measure for promoting gender equality at the family farm. The programme provides training in scientific dairy farming practices and financial support to women members of scheduled caste, backward class families living below the poverty line. According to the programme's annual report 1996-1997, "Men are tough to handle when told to take up the operation of milking a cow. But when a woman is told, she at once swings into action. She does not hesitate to handle a cow yielding even 15 or 20 liters of milk per day..." Women have also been found to be active in adopting new scientific dairy farming practices promoted under the programme. The success of the Thividari Upliftment Programme has been attributed to the fact that women beneficiaries dedicate themselves wholeheartedly to the programme as it is exclusively for women.

### **6.2 Enhancing Training and Skill Development Opportunities**

Dairy farm women understood and realized the importance of training as well as skill development in their transformation as livestock keepers, dairy farmers, and entrepreneurs. Farmers perceived relevance of training to their feelings about improved dairy farming practices as the biggest constraint. Other serious limitations included inadequate knowledge of the pedigree enquiry, the





complexity of silage making practices when compared to the number of animals owned by farmers, the lack of interest of farmers in animal records (Manjusha et al. 2015). Implementing authorities required village institutions and Dairy Cooperative Unions on their part need to take over this task of identifying and creating promotional training skills through local publicity of various educational and training programmes. The women need to be motivated to participate in cultural programmes, debates, seminars, and youth festivals at all levels since it was a good tool of rural education. The Krishi Vigyan Kendras need to be strengthened and developed as farm science support systems for the farming community on some like TVS payable voltage stabilizers. Improvement in communication like better roadways, increased reliability could certainly go a long way in enabling the rural women to have access to all these support systems in the rural areas. Sidheshwari women's dairy cooperative in Pune, Odisha, was evaluated for its influence on rural women's economic empowerment. The assessment concluded that taking up dairy farming and joining a women's cooperative association can substantially improve the economic situation of women. There are a number of other challenges that rural women face, including animal diseases, irregular dividend payments, a shortage of improved breed cows, and a lack of opportunities for full-time dairy careers (Dash and Sarangi 2017). All long- and short-term strategies should reflect the grassroots needs of women and their role in changing scenario of agriculture and rural life. Organizing empowering women of women is paramount to harness potential of women as active promoting rural development. The designing, contents and delivery mechanisms of training programmers are part, the Asian states and the curriculum institutions recognized personnel. The development in such a way that it should provide opportunities and technology, for realizing community needs of women. At present level, the structure and operation of development programmes are heavily biased towards conventional social relations. They should undertake to determine the need of this group and should take measures to upgrading their bankers. 7.3 Enhancing Training and Skill Development Opportunities: Dairy farm women being not absolutely ignorant in dairy technology, they had accepted the almost arrived without and formal education of this technology they have accept the technology as traditional one. This knowledge being informal knowledge were not acknowledged or recognized for its benefits till about 10 years ago. Since formal education was simply directed towards resource poignancy in the family, they seldom





provided girls a good opportunity to access to conventional mode of agricultural and allied agricultural qualification. Consequently a poor record of rural women section in these regard at the door of kened to technical education. Women need to be labile to deeply rooted gender penetrating attitudes of denial and deprivation rights of inherent in the work ethical mainstream production system. Impressive were the participants at all levels intensive courses brings one to face to face. Since education and culture are twined, the host societal level the support systems created by extension and skill dimension of gender equality concerning science and technology must take a greater role, and be antiquated with issues that hinder the development of rural women.

### **Conclusion**

The available information from this study revealed that a large proportion of milk-producing families were women from the villages. They had medium participation (150.44), followed by low participation (175.68), in dairy farming activities and low adoption of dairy farming for meeting the economic needs of the family. It can be concluded that the participation of village women in extension trainings should be encouraged in every sector of dairy extension services, following tool and kit establishment, for better participation of women in dairy farming to enhance the quality of life of the rural masses in the era of globalization. The major constraints of women on dairy extension activities in the main Haryana were identified as communication gap, illiteracy, lack of interest, gender bias, lack of training, lack of awareness, stationing and mobilization, workload. Providing the opportunity for women to engage in a diversified and skilled job would encourage the adoption of dairy farming to assist in the alleviation of rural poverty, thus promoting socio-economies by providing low-income men, women, and children to avail the benefits of dairying with low risk and higher employment opportunities in rural areas, particularly the female-headed family shrouded by social and economic crisis. Women's acceptance and contribution in dairy extension activities and adoption of dairy farming would increase the living standard and confidence of women living in the family.

The women in Haryana are involved in almost all the activities related to dairy farming and milk production. Women's contribution in dairy farming extends beyond production; they are helping at almost every level, from cattle care to retailing of milk and milk products. Various activities associated with dairying, including fodder collection, stall cleaning, feed preparation, feed





distribution, and cleaning and milking of animals, were performed significantly by women. The highest involvement of women was in fodder collection and cleaning of dilute solution, and the least was in the distribution of feed and herd care/management activities associated with dairying, including stall cleaning, feed preparation, and cleaning of dilute solution, performed significantly by women.

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