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EMPOWERING WOMEN DAIRY FARMERS THROUGH ADOPTION OF DRUDGERY REDUCING TECHNOLOGIES AND AVAILING GOVERNMENT SCHEMES

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Abstract

Dairy cattle are one of the most important investments a farmer can make to improve welfare, income and nutritional standards of the household because of their inherent value, the work they can perform, the way they can help diversity farming activities and the fundamental nutritional value of the milk produced (FAO, 1994). The role that women play in the management of dairy cattle differs greatly among communities, countries and regions. Within households across different contexts, women are in many cases central to milk production, although the responsibility for managing milk production does not always translate into ownership of the dairy animal. This lack of ownership of and control over dairy animals is one of the main constraints that women face in dairy farming. It often precludes women's involvement in the decision making process, particularly in relation to the adoption of drudgery reducing modern technologies, sale of dairy animals, as well as the use and sale of milk and milk products and availing various government schemes. Most of the agricultural and animal husbandry activities are performed by the farm women and due to the traditional technologies they use, the work efficiency is reduced and they have remained as shadow workers. So, there is a greater need to bridge the gap between the technology producers and the users to empower women fairy farmers and bring them into the mainstream of national development.

***Key words*:** Empowering, adoption, drudgery reducing technologies, government schemes.

Introduction

In India rural women besides their involvement in agriculture have been traditionally and predominately engaged in animal husbandry and dairy activities. This is highlighted by the fact that there are 75 million women in dairy as against 15 million men. Similarly the women engaged in animal husbandry accounts of 25 million as against only 1.5 million men (Census of India 2001). The contribution of women in the field of animal husbandry has been substantial. In many places the entire management of livestock viz., chopping of fodder, feeding, milking, preparation of milk products, cleaning of cattle shed, collection of cow dung for manure pits and their storage is done by women alone. Most of the tasks performed by women are tedious as well as time consuming. As most of these operations are done manually or by using traditional tools, they are slow and cause considerable fatigue and drudgery. Also many of these operations are traditionally done in varying body postures some of which if done for long duration are not only inconvenient but also cause body pain. All these factors result in physical and mental fatigue, monetary hardship, exploitation, pain, economic stress etc.

In India women still follow the age old methods whether on the farm or in animal husbandry activities. A desired change in the life of rural women, which is full of drudgery, can be brought by the use of application of simple, scientific and appropriate technologies. Farm women can also be given financial assistance through various government schemes that provide loan to those interested in setting up their own dairy enterprises in the villages. There are growing number of available technologies which can enhance women's productivity and income in animal husbandry sector, but these technologies have not reached the women as lack of knowledge is one of the main barriers in transfer of appropriate technology to the farm women. Therefore, it is necessary that women become technologically empowered in animal husbandry. It is possible to achieve this by up gradation of their knowledge and skills in technologies. Some of the technologies recommended for women to reduce the work stress of female dairy workers are as below.

Drudgery Reducing Technologies for Women Dairy Farmers

1. Revolving Pihri
2. Electric butter churner, Cream separator and Milk cooker
3. Automatic milking machine
4. Washing pressure shower machine

5. Hand operated chaff cutter with safety devices and Electric chaffing machine
6. Cow dung dewatering screw press machine
7. Solar water plate for animal bathing and cow shed cleaning
8. Wiper for mud pasting and Long handle broom for cleaning the animal shed
9. Double wheel barrow or Trolley for disposing of animal waste
10. Dung collector for collecting dung, etc.

The capacity of livestock systems to provide protein-rich food to billions of smallholder rural food producers and urban consumers, generate income and employment, reduce vulnerabilities in pastoral systems, intensify small-scale mixed crop-livestock systems and sustain livelihood opportunities to millions of livestock keepers makes them an appealing vehicle for improving development. Livestock provide income, create employment opportunities and provide food and nutrition security across different production systems and along different value chains. Moreover, vulnerable groups, particularly women and the landless, frequently engage in livestock production, thus highlighting the multifaceted virtues of livestock promotion as a pathway out of poverty. It also plays important roles in securing household food security. This happens through various ways: (i) in times of food shortages, households sell livestock to purchase other food such as cereals and legumes; (ii) income from regular livestock and livestock product sales is used for food purchases to supplement household food production and to diversify diets; (iii) livestock and livestock products are consumed and provide a protein diet for households.

Electric Milking Machine

Electric Machine for making Cow dung cakes

Electric Chaffing Machine

Trolley for Carrying Animal Waste

Institutes that Provide Training on Dairy Farming

1. NDRI, Karnal
2. Punjab Dairy Development Board, Punjab
3. Dairy Department, Govt. of India
4. Department of Animal Husbandry and Dairy, Haryana
5. Krishi Vigyan Kendras (KVKs)
6. Private Agencies like Amul/ Gokul.

Government Schemes for Setting up a Dairy Enterprise

1. UP Kamdhenu Dairy Scheme
2. Intensive Dairy Development Programme (IDDP)
3. Dairy Entrepreneurship Development Scheme (NABARD)
4. Mahila Dairy Scheme
5. Dairy Plus Scheme

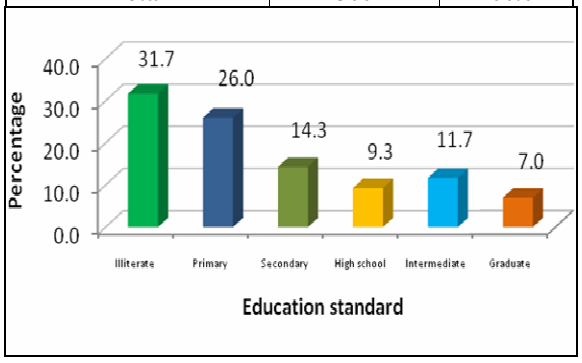
Materials and Method

The study was conducted in Kanpur district of Uttar Pradesh state which was purposively chosen for the present investigation. Out of total ten blocks in the district, two blocks namely Kalyanpur and Sarsaul were randomly selected. Five villages were then randomly selected from each selected block to get a total of 10 villages. Random selection of 30 farm women was done from each selected village to draw a total sample size of 300 farm women for the study purpose. Dependent and independent variables such as age, education, caste, time, drudgery, dairy enterprises etc. were studied. The statistical tools applied were rank, chi-square, Cr, adoption index etc.

Results and Discussion

Table 1 : Distribution of farm women according to education

Education level	Frequency	Per cent
Illiterate	95	31.7
Primary	78	26.0
Secondary	43	14.3
High School	28	9.3
Intermediate	35	11.7
Graduate and above	21	7.0
Total	**300**	**100.0**



The perusal of table 1 reveals that 31.7 per cent of farm women respondents were found to be illiterate, followed by 26.0 per cent of farm women who were educated up to primary level, while only 7.0 per cent of women were educated up to graduation and above. The low socio-economic status of the farm families is also a major contributing factor for low educational status of women farmers. Generally, farm women belong to lower income group, so their education is not paid much attention. But women should be educated and made aware about new technologies related to dairy farming because if farm women are educated and knowledgeable they will be able to adopt modern technologies in the right way and reduce their work load.

Table 2 : Awareness and knowledge of farm women about various Govt. schemes for dairy enterprises

Sl. No.	Scheme	Frequency	Per cent
1.	UP Kamdhenu Dairy Scheme	240	80.0
2.	Mahila Dairy Scheme	120	40.0
3.	Intensive Dairy Development Programme (IDDP)	150	50.0
4.	Dairy Entrepreneurship Development Scheme (NABARD)	120	40.0
5.	Dairy Plus Scheme (SBI)	60	20.0

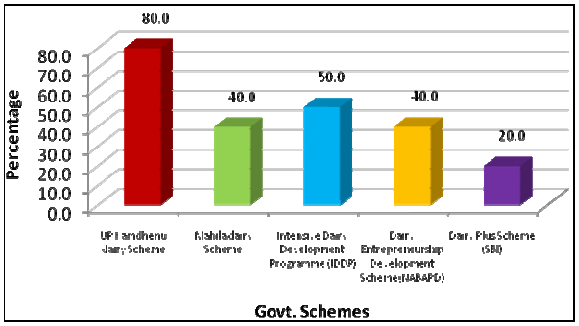


Table 2 shows that 80.0 per cent of the respondents had knowledge about U.P. Kamdhenu Dairy Scheme whereas, 50.0 per cent knew about Integrated Dairy Development Scheme (IDDP). 40.0 per cent of the farm women had knowledge about dairy entrepreneurship scheme of the government, Mahila dairy scheme and dairy enterprises development scheme, respectively. 20.0 per cent of the women respondents had know about dairy plus scheme. Women are the key figures in dairying and contribute more than the men folk. About 85 per cent of those involved in dairying are women who have close linkages with animals. They consider them as part of their family. Women are more knowledgeable about the behaviour,

characteristics and health aspects of each animal. Thus, they should be provided financial support as the participation of women in drudgery reducing in dairy farm activities is necessary not only from the point of view of human resource but also from the objective of raising the status of women in the society.

Table 3 : Knowledge of farm women about banks/agencies providing loan for dairy enterprises

Sl. No.	Bank/ Agency	Yes	No	Mean score	Rank
1.	NABARD	114(38.0)	23 (7.7)	1.83	I
2.	SBI	21(7.0)	116 (38.7)	1.15	V
3.	UCO bank	84(28.0)	53 (17.7)	1.61	II
4.	IDBI	14(4.7)	123 (41.0)	1.10	VII
5.	Bank of Baroda	7(2.3)	130 (43.4)	1.05	VIII
6.	TATA Capital	15(5.0)	122 (40.7)	1.11	VI
7.	Cooperatives	35(11.7)	102 (34.0)	1.25	IV
8.	Gramin Bank	54(18.0)	83 (27.7)	1.39	III

Figures in parentheses denotes the percentage of respective values

It was observed in the study area that most of the farm women had knowledge about funding from NABARD which is a recognized agency of Govt. of India. Secondly, farm women knew about funding from UCO bank which is very popular at village level. The third preference was given to Gramin Bank as these banks are situated at the block level and farmers had greater faith in this bank as these banks are only meant for villages. The fourth rank was given to cooperative societies as they work for the development of villages so large and small farmers prefer taking loans from cooperatives.

Conclusion

Many technologies have not reached the women at grass root level. The improved technologies, if properly used, can reduce the drudgery of farm women and increase the work efficiency. The gender bias modifications can be incorporated if new technologies are introduced. It can be said that the rural women lacked knowledge about different drudgery reducing technologies and various government schemes related to dairy farm. Thus, there is a need to make them aware about these technologies and enhance the capabilities of farm women to use them for reducing strain and time.

At present the Govt. has taken appreciable initiatives only for women by introducing gender specific schemes for dairy development. This will prove to be very beneficial for our rural women to improve their overall socio-economic status and improve her livelihood. Nowadays, both the private sector and the cooperatives drive the value chains. Because of the many unsuccessful cooperatives in the country, other models of dairy farmer organizations are being explored, such as mutually aided cooperative societies (MACS) and producer companies. Millions of small and marginal farmers in dairying who own two to three animals and produce an average of 5 litres comprise a critical portion of India's dairy industry. Livestock development in general and dairy development activities in particular are key components of pro-poor development strategies because livestock distribution is much more equitable than land distribution. Thus, changes in the dairying environment have important implications for the smallholder farmers and for poverty reduction.

Recommendations

1. Bring about structural changes, take measures like processing at village level, process and market pasteurized milk in a cost effective manner, quality up-gradation of traditional technology to commercial sale using modern equipment and management skills are needed.
2. Governments' support to dairy farmers by providing subsidies for calf rearing and feeding the cattle during dry seasons, proper prices and market facilities.
3. Governments, co-operatives or private institutes should organize training programmes before distribution of loans and provide guidance to rural dairy farmers through guidance centre or counseling centres through an extension agency.
4. Special provision to impart frequent training to dairy farmers in the areas such as animal health care and disease control, care and management of animal, breeding and management of animal, feeding and management and clean milk production etc.
5. Cooperative banks and other national banks should come forward to extend liberal credit facilities to the farmers particularly small and marginal farmers for the development of dairy enterprise.

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