Constraints Faced by the Members of Women Milk Producers' Cooperative Societies in Shivamogga District of Karnataka, India

ABSTRACT

Women Milk Producers' Co-operative Societies (WMPCS) have emerged as an important source of rural employment and income in the country. The development of the WMPCS is very impressive in recent past. Shivamogga district is a good contributor to milk in Karnataka state. Keeping this in view, an ex-post facto research design was adopted to assess the constraints faced by the WMPCS members in dairy farming in the Shivamogga district of Karnataka. A total of 120 members were randomly selected from six WMPCS in two taluks of Shivamogga district and the data was collected with a semi-structured interview schedule. The collected data were subjected to suitable statistical tools and inferences were drawn. The study revealed that the majority of the women members had experienced the constraints in dairy farming like high cost of cattle feed and mineral mixture, low price of milk, high cost of crossbred cows, inadequate provision of loans in society or government for purchasing animals, lack of timely technical guidance, poor conception rate in dairy animals through artificial insemination, poor knowledge about feeding and health care, an increasing gap between farmers' prices and consumers' prices/increasing cost of handling charges by the union, Nonexistence of a price-fixing policy based on changing cost of production, decreasing animal sales and availability in the local livestock market, lack of training facilities or capacity-building activities and the non-availability of veterinary staff during needy hours as the constraints. Strategies should be developed for capacity building of women farmers related to scientific dairy managemental practices. Thrust should be given to development of policies and programmes for credit facilities.

Key words: *Constraints, Women Milk Producers' Cooperative Society,Shivamogga, Karnataka*

1.INTRODUCTION

India is primarily an agricultural nation. Its economy is based on agriculture, with dairying playing a significant role. Like all other agricultural enterprises, Dairy is based on small-scale individual units. Most farmers are small and marginal, with only two or three cattle and less than two hectares of land. These kind of farmers are seen throughout the country.Women play a vital role in agriculture and allied farming systems, and their involvement accounts for about 60–80 per cent of the labour force. In animal husbandry, women have various roles and their involvement varies widely, ranging from the care of animals, fodder collection and fodderchopping, cleaning of animal sheds, processing of milk, and collecting and processing of dung. Rural women devote 90 per cent of the labour force to livestock farming. Around 75 million women, as against 15 million men, are involved in dairy activity in India.(Jignesh,2020[1]). Dairy production has become an important component of rural development programmes in the rainfed areas of India, and is considered as an instrument for socioeconomic change to improve as income and quality of life(Bhawar et al., 2020)[13]. India is a leading dairy economy, with many milk producers organized into women-only and mixed-gender co-operatives. They typically spend more of their income on food than men; enhancing women's control over the livestock and their products can improve household nutritional security. Indeed, livestock is usually simpler for poor women to acquire than all the other assets like land and machinery, whether through inheritance, markets, or group efforts. Co-operatives can successfully link women, livestock keepers to markets and provide them with direct access to a steady source of income that they can control.India has 190,000 village-level dairy co-operatives, and this number has been steadily increasing. In the 2018-19 financial year, membership of the Dairy Co-operative Network (part of the NDDB) was around 16.93 million dairy farmers, of whom around 5.06 million were women, representing almost one-third of all members. To increase women's membership, the Dairy Co-operative Network established 4,635 new women-only dairy co-operative societies in 2018–19(Ravichandran *et al*., 2021)[14].The co-operatives have developed modern systems of veterinary care and artificialinsemination and provide these services to a large number of milk producers at very low prices. The district cooperatives have

vans equipped with a trained veterinary surgeon and medicines stationed in different centres to cater to the needs of the members of the co-operatives. (Sharma *et al.,* 2021)[12]

2.MATERIALS AND METHODS

The present study was conducted in Shivamogga and Sagar taluks ofShivamogga districts of Karnataka statewitha sample size of 120 women members of WMPCS. A total 20 WMPCS members form each of six WMPCS were randomly selected by following Simple random technique. Through literature review and expert recommendations, 39 constraints were listed in the interview scheduleunder five subheadings such as Infrastructure Constraints, Economic Constraints, Marketing Constraints, Social Constraints and Technical Constraints. . A structured interview schedule was developed in consultation with the experts and the pre-tested schedule was used for collection of data from the respondents.Lists of constraints in the form of statements were developed and analyzed according to their severity. Farmers were asked to rank all factors or constraints that they deemed as important which were limiting dairy farming. The data obtained form the respondents was coded, tabulated and subjected to suitable statiscal tools like frequency and percentages andGarrett's ranking technique was used to prioritize the constraints faced by the members(Garret and Woodworth., 1969)[15]using the following formula:

$$\text{Per cent position} = 100\ (R_{ij} - 0.50) / N_j$$

Where R_{ij} is the Rank given for the i^{th} factor by the j^{th} individual, N_j is the Number of factors ranked by the j^{th} individual. The per cent position was converted into scores by referring to the table given by Garrett and Woodworth (1969). Then for each constraint, the scores of the individual respondents were added together and divided by the total number of respondents for whom scores were added. These mean scores for all the factors were arranged in descending order and the most significant constraints were identified through the ranks assigned.

3.RESULTS AND DISCUSSION

Infrastructural constraints

Table: 1: Distribution of the respondents according to the infrastructural constraints (n = 120)

Sl.No.	Constraints	Frequency	Total score	Mean score	Rank
1	Non-availability of improved equipment	6	303	50.500	III
2	Irregular or inadequate supply of cattle feed	8	403	50.375	IV
3	Unavailability of emergency veterinary services	25	1068	42.720	XI
4	Non-availability of veterinary staff during needy hours	55	2670	48.545	VII
5	Non-availability of vaccines	5	234	46.800	X
6	Occasional/Non-availability of timely AI service at the right time	6	294	49.000	VI
7	Lack of training facilities or fewer capacity-building activities	95	4606	48.484	VIII
8	The unsuitability of the time of delivery of milk during winter due to bitter cold in the early hours of the day	25	1313	52.520	I
9	Unavailability of green/dry fodder throughout the year	96	4642	48.354	IX
10	Non-availability of critical inputs (like seeds) at the local level	5	253	50.600	II
11	Non-availability of high-yielding animals locally	8	398	49.750	V

The major infrastructural constraints (Table 1) faced by the members in various activities of dairy farming were, the unsuitability of the time of delivery of milk during winter due to bitter cold in the early hours of the day, followed by Non-availability of critical inputs (like seeds) at the local level and Non-availability of improved equipment. Table 1 also illustrates that,Irregular or inadequate supply of cattle feed, Non-availability of high-yielding animals locally, Occasional/Non-availability of timely AI service at the right time, Non-availability of veterinary staff during needy hours, Lack of training facilities or fewer capacity-building activities, Unavailability of green/dry fodder throughout the year, Non-availability of vaccinesand Unavailability of emergency veterinary serviceswere the other major constraints expressed by the respondents. Similar findings were reported byJeelani et al. (2015)[2], Singh et al. (2015)[3], Maruthi et al.(2016)[4], Patelet al. (2017)[5], and Virenderet al.(2017)[6].

Marketing constraints

Table: 2: Distribution of the respondents according to the Marketing constraints (n=120)

Sl.No.	Constraints	Frequency	Total score	Mean score	Rank
1	Lack of time for marketing	2	70	35.000	IX
2	Less knowledge about marketing strategies	2	85	42.500	VIII
3	Lack of testing facilities at the village level	15	687	45.800	VII
4	No or less advance payment for milk by society	5	262	52.400	II
5	Inability to market for value-added products	65	3357	51.646	III
6	Decreasing animal sale/availability in local livestock market	25	1325	53.000	I
7	Lack of quality control measures	8	375	46.875	VI
8	The increasing gap between farmers' prices and consumers' prices/increasing cost of handling charges by union	96	4663	48.573	IV
9	Non existence of a price-fixing policy based on changing cost of production	95	4465	47.000	V

The significant marketing constraints (Table 2) faced by the members in dairy farming were,Decreasing animal sale/availability in local livestock market, followed by No or less

advance payment for milk by society,Inability to market value-added products, The increasing gap between farmers' prices and consumers' prices/increasing cost of handling charges by union,Non existence of a price-fixing policy based on changing cost of production, Lack of quality control measures, Lack of testing facilities at the village level, Less knowledge about marketing strategies, and lack of time for marketing were the important marketing constraints.

Technical constraints

Table: 3: Distribution of the respondents according to the Technical constraints (n=120)

Sl.No.	Constraints	Frequency	Total score	Mean score	Rank
1	Lack of timely technical guidance	84	4097	48.774	IV
2	Unavailability of high genetic merit bull	12	518	43.167	V
3	Poor conception rate through artificial insemination	64	3392	53.000	II
4	Poor knowledge about feeding and healthcare	23	1194	51.913	III
5	Lack of knowledge about cost-effective dairy management	36	1963	54.528	I

The major technical constraints (Table 3) faced by the respondents in dairy farming were, Lack of knowledge about cost-effective dairy management, followed by poor conception rate through artificial insemination, Poor knowledge about feeding and health care,Lack of timely technical guidance, and Unavailability of high genetic merit bull. The results are in line with the findings of Niketha et al. (2018)[7], Panchabahai et al. (2017)[8], Virender et al. (2017)[6], and Sharma et al. (2014)[9]. However, the results are not in line with the results of Patil et al. (2009)[10].

Social constraints

Table: 4: Distribution of the respondents according to the Social constraints (n=120).

Sl.No.	Constraints	Frequency	Total score	Mean score	Rank
1	Lower socio-economic conditions	22	1093	49.682	III
2	Less purchasing power	13	558	42.923	V

3	Less attention to dairy animals due to more active in domestic /agricultural work	15	747	49.800	
4	Lack of cooperation and coordination among members	5	225	45.000	IV
5	Milk production is meant for influential people	9	450	50.000	I

The social constraints (Table 4) perceived by the respondents were, Milk production is meant for influential people followed by,Less attention to dairy animals due to more active in domestic /agricultural work, Lower socio-economic conditions, Lack of cooperation and coordination among members and Less purchasing power.

Economic constants

Table: 5: Distribution of the respondents according to the Economic constraints (n=120)

Sl.No.	**Constraints**	**Frequency**	**Total score**	**Mean score**	**Rank**
1	Delay in payment of milk	5	251	50.200	II
2	Low price of milk offered	96	4715	49.115	V
3	High cost of crossbreed cow	85	3999	47.047	VIII
4	High cost of cattle feed and mineral mixture	86	4264	49.581	IV
5	Low provision of loans in society or subsidies from the government for purchasing cattle	65	3229	49.677	III
6	Low incentives or bonuses for supplying milk	74	3430	46.351	IX
7	The increasing cost of emergency services and medicine	23	1086	47.217	VII
8	Non-availability and high cost of livestock insurance	3	157	52.333	I
9	Delay and increased rejections of insurance settlements	5	251	50.200	II

The significant economic constraints (Table 5) expressed by the respondents were, Non-availability and high cost of livestock insurance,followed by Delay in payment of milk, Low provision of loans in society or subsidies from the government for purchasing cattle, High cost of cattle feed and mineral mixture, Low price of milk offered, Delay and increased rejections of insurance settlements, The increasing cost of emergency

services and medicine. Apart from these, Low incentives or bonuses for supplying milk was also the constraint among the respondents. The similar findings were reported by,Sharma et al. (2014)[9], Lalruatfeli et al. (2021).[11]

4.CONCLUSIONS

The lack of green fodder throughout the year was the major constraint that members had in their dairy activity; thus, extension strategies should be undertaken to promote green fodder production and also conservation of fodder through silage making.One of the significant constraints faced by members was the society's or government's lack of loan provisions. Therefore, banking institutions should boost the loan amount to enable the members to buy high-quality, high-yielding milch animals. In addition, the high cost of feed and fodder was another major constraint; hence, suitable measures should be taken to provide feed and fodder at lower prices through MPCS and also promotion of self production of feed which lowers the cost of production.The low milk price offered was the another constraint perceived by majority, hence the MPCS should take into consideration of cost of milk production for price fixation so as to provide a remunerative price and incentives for the milk production. Policies and programmes needs to be formulated for skill upgradation and credit facilities for dairy farmers in order to encourage them to expand dairy farming and their membership in dairy co-operatives.

Disclaimer (Artificial intelligence)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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