



## Dairying for sustainable rural development: An empirical study on women members of dairy cooperatives

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### Abstract

Rural development is a base for the country's development. The purpose of this study is to investigate the dairying of women members of grassroots level PMPCSs (dairy cooperatives) functioning in Nilakkottai and Dindigul blocks in Dindigul of Tamil Nadu. Primary data were collected from women members of PMPCSs through interview schedule and analysed using percentage. It found that PMPCSs have been contributing for the long-term socio-economic development of its women members. Further, it recommended that the State government has to provide all assistances to milk producers for their sustainable socio-economic development through PMPCSs which leads to rural development.

**Keywords:** women, dairying, PMPCSs and rural development

### 1. Introduction

Progress of our country depends on rural development which in turn depends on socio-economic development of people, particularly women, in rural areas. By understanding the real growth facts, Governments in India (both the Central and the State) have been implementing its socio-economic development programmes and schemes through grassroots level organizations. Similarly, Primary Milk Producers Cooperative Societies (PMPCSs) have been functioning for the socio-economic development of milk producers in rural areas by providing all kinds monetary and non-monetary assistances. PMPCSs have been managed by democratically elected members (Board of Directors) and administered by the employees who have background and knowledge on cooperation. It necessitated knowing as to what extent PMPCSs play an important role in socio-economic development of women milk producers through their dairying which in turn lead to rural development. In this background, an attempt was made by the researcher to study the selected dairy practices of women members of PMPCSs and thereby their continuous socio-economic development.

### 2. Review of literature

Sanjeeb Patjoshi (2013) [3] in "Cooperative Dairying: White Revolution as Effective Solution for Naxal Menaces" said that dairy farmers' life starts from very early morning to end to late evening with various dairying related activities like cleaning milch animal shed, washing them, collecting fodders, and other financial transactions in the cooperative society. They extend their love and affection from milch animals to fellow human beings. This practice has made them to spend their productive time fully in dairying and leave other anti-social activities. Further, dairying provides not only nutritional food to them but also liquid cash to manage the family

expenses and their purchasing power. The study concluded that policy makers and responsible persons have to promote dairying among poor tribal populace of Naxal infested areas to eliminate the menaces of naxalism.

Subhash Chandra Mandge (2014) [6] in "Dairying for Rural Development" tinted that in India dairy cooperative network is one of the biggest in the world. This network ensures the rural milk producers to have access to urban markets and all dairying related development activities. This network procures milk from rural milk producers and supply to people from children to age in urban areas. The study recommended that the Government has to frame appropriate policies to encourage cooperative dairying for rural development, adequate loan facilities to dairy cooperatives with reasonable interest rate and in turn it has to provide to its members to purchase milch animals. It concluded that there is an urgent need to develop dairy sector in the country for continuous rural development. Further, this sector provides steady income to dairy farmers in rural India and increases milk consumption.

Cephas P Charles (2015) [1] in "Sustainable Dairying – An Outlook" highlighted that the circumstances in milk production in the World, particularly in India and tribulations in sustainable dairying. It stressed for sustainability in milk sourcing for cooperatives. It recommended that sustainable purchase has to ensure justice and lucidity in the system, a strong relationship between milk producers and dairy cooperatives, and the improvement of milk production. It completed that Governments in the country have to take appropriate measures to decrease the cost of milk production by escalating the productivity of milch animals and modern dairy management practices. Further, it said that the quality of milk and milk products ought to be enhanced to the international standards.

### 3. Objectives

- To study the demographic and socio- economic status of women members of PMPCSs
- To identify the dairy management practices of women members of PMPCSs
- To discover the problems of women members of PMPCS, and
- To offer suggestions to overcome the problems faced women members of PMPCSs

### 4. Methodology

This empirical study is based on descriptive research method. The study areas are selected PMPCSs functioning in Sanampatti village in Nilakkottai block and K.Pudukottai village in Dindigul block in Dindigul District of Tamil Nadu State in India. It is confined only to selected women members of those randomly selected PMPCSs. From each PMPCS 25 women members were randomly selected. Thus, a total of 50 (25 women members X 2 PMPCSs = 50) women members of PMPCSs constituted the core respondents of the study. An interview schedule was prepared and used for primary data collection from women members of PMPCSs. Primary data were collected from them from December, 2017 to January, 2018, during evening time as expedient for both the researcher and women members of PMPCSs. Primary data were analyzed using percentage.

### 5. Limitations

It was focused on the dairy practices of randomly selected 50 women members of Sanampatti and K.Pudukottai PMPCSs in Dindigul alone due to time constrains. Hence, the findings and suggestions are applicable only to selected PMPCSs in the study areas and not other PMPCSs functioning in Dindigul. The opinions expressed by the women members were only on the moment of time of data collection and not applicable to other time.

### 6. Data analysis and discussions

**Age:** Any one can come and join as a member of PMPCS after completing 18 years of age. After becoming a member, she/he has to supply milk regularly to their respective PMPCSs.

**Table 1:** Distribution of Respondents by Age

Sl. No.	Age in years	Respondents	
		Number	Percent
1.	18 – 28	4	8.0
2.	29 – 38	27	54.0
3.	39 – 48	14	28.0
4.	Above 49	5	10.0
	Total	50	100.0

*Source:* Computed from primary data

This table shows that 8.0 percent of the respondents were in the age group of 18 – 28 years, 54.0 percent were in the age group of 29 – 38 years, 28.0 percent were in the age group of 39 – 48 years, and 10.0 percent were in above 49 years. This table further shows that majority (82.0 percent) of the respondents were in the active age group of 29 – 48 years. It seems that they can productively and energetically contribute

not only to their socio-economic development but also to the development of their PMPCSs.

**Caste:** PMPCSs admit all persons as its members irrespective of their caste, colour and creed. It plays an important role in socio-economic development of people in rural areas.

**Table 2:** Distribution of respondents by caste

Sl. No.	Caste	Respondents	
		Number	Percent
1.	BC	33	66.0
2.	MBC	6	12.0
3.	SC	11	22.0
	Total	50	100.0

*Source:* Computed from primary data

This table indicates that 66.0 percent of the respondents were belonging to Backward Class (BC), 22.0 percent were belonging to Scheduled Caste (SC) and the rest 12.0 percent were belonging to Most Backward Class (MBC). This table further indicates that 66.0 percent of the respondents were belonging to Backward Class (BC) who are playing major role in dairying and functioning of PMPCSs in the study areas.

### Religion

Every religion has its own social culture, customs and celebrations. People have faith (either traditional or modern) on the practice and believe of their own religions.

**Table 3:** Distribution of respondents by religion

Sl. No.	Religion	Respondents	
		Number	Percent
1.	Hindu	41	82.0
2.	Christian	8	16.0
3.	Muslim	1	2.0
	Total	50	100.0

*Source:* Computed from primary data

This table reveals that 82.0 percent of the respondents were Hindus, 16.0 percent were Christians and the remaining 2.0 percent were Muslims. This table further reveals that majority (82.0 percent) of the respondents were belonging Hindu religion who are playing a significant role and responsibility in the functioning of PMPCSs in the areas under the study.

**Education:** It is a way of life for human beings to have better standard of living. It decides the type of employment and thereby level of income. It creates awareness among people about the socio-economic development.

**Table 4:** Distribution of a respondents by education

Sl. No.	Education	Respondents	
		Number	Percent
1.	Illiterates	26	52.0
2.	Primary school	15	30.0
3.	Secondary school	9	18.0
	Total	50	100.0

*Source:* Computed from primary data

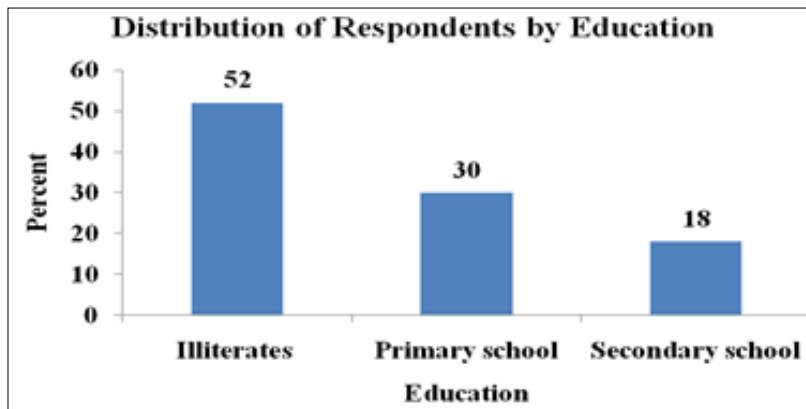


Fig 1: distribution of respondents by education

This table confirms that 52.0 percent of the respondents were illiterates, 30.0 percent completed upto primary school, and 18.0 percent finished from primary school to secondary school level. This table further confirms that 52.0 percent of the respondents were illiterates and 48.0 percent were educated upto secondary school level. It seems that dairying has been

dominated by illiterates, because it hardly requires higher education like other occupation.

**Occupation:** It is a base for socio-economic development of human beings. The nature of employment depends on the educational qualifications of individuals.

Table 5: Distribution of Respondents by Type of Occupation

Sl. No.	Occupation	Respondents	
		Number	Percent
1.	Dairying alone	43	86.0
2.	Dairying with other occupation	7	14.0
	Total	50	100.0

Source: Computed from primary data

This table proves that 86.0 percent of the respondents were involving in dairying alone and the rest 14.0 percent were engaging dairying with other occupation like agriculture, daily wage, etc. This table further proves that majority (86.0 percent) of the respondents were involving themselves in

dairying alone for their livelihood and income generation.

**Milch Animals:** A person may decide the possession of number of milch animals depends on the availability of capital for investment, land for shed, and time for managing them.

Table 6: Distribution of Respondents by Possession of Number of Milch Animals

Sl. No.	Milch Animals in number	Respondents	
		Number	Percent
1.	1 – 2	43	86.0
2.	3 – 4	7	14.0
	Total	50	100.0

Source: Computed from primary data

This table demonstrates that 86.0 percent of the respondents were having 1 – 2 milch animals and the remaining 14.0 percent were having 3 – 4 milch animals. This table further demonstrates that majority (86.0 percent) of the respondents were having 1 – 2 milch animals to improve their standard of living in the study areas. It was observed that mostly respondents possessed 'Jersey' milch animals to get more milk

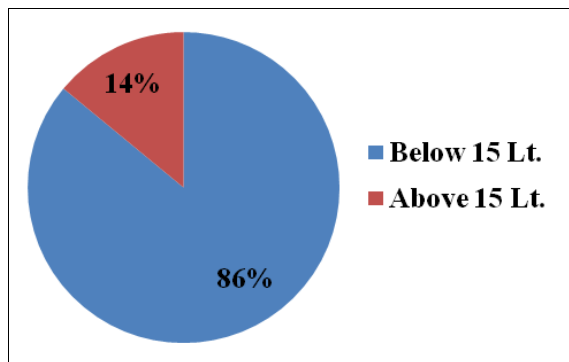
than other variety of milch animals.

**Milk Production:** It depends on the type of fodders given to milch animals and proper management of milch animals. Further, farmers mostly prefer locally and naturally available fodders to milch animals to reduce fodder expenses on their part.

Table 7: Distribution of Respondents by per day Total Milk Production (Both Morning and Evening)

Sl. No.	Milk Production (in liters)	Respondents	
		Number	Percent
1.	Below 15	43	86.0
2.	Above 15	7	14.0
	Total	50	100.0

Source: Computed from primary data



**Fig 2:** distribution of respondents by per day total milk production

This table exhibits that 86.0 percent of the respondents were producing below 15 litres of milk per day both morning and evening and the lingering 14.0 percent were producing above 15 litres of milk per day. This table further exhibits that majority (86.0 percent) of the respondents were producing upto 15 litres of milk per day both morning and evening through their milch animals in the study areas.

**Income:** Every individual wants to have higher and regular income to improve their standard of living. The income level

of the milk producers depends on the possession of number of milch animals and type of fodders given to them.

**Table 8:** Distributions of Respondents by Monthly Income through Dairying

Sl. No.	Monthly Income (in Rs.)	Respondents	
		Number	Percent
1.	Below 6,000.00	43	86.0
2.	Above 6,001.00	7	14.0
Total		50	100.0

*Source:* Computed from primary data

This table displays that 86.0 percent of the respondents were getting a monthly income below Rs.6,000.00 through dairying and the persistent 14.0 percent were getting above Rs.6,001.00 as a monthly income through dairying. This table further displays that majority (86.0 percent) of the respondents were getting upto Rs.6,000.00 as a monthly income through dairying after meeting out all its related expenses.

**Dairy Practices:** Every milk producer has their own dairy management practices. Some may carry out all dairy activities. Some may depend on their family members for dairying.

**Table 9:** Selected Dairy Management Practices of Respondents

Sl. No.	Dairy Management Practices	Respondents					
		Number			Percent		
		Yes	No	Total	Yes	No	Total
1.	Collecting fodders	43	7	50	86.0	14.0	100.0
2.	Cleaning of milch animals	46	4	50	92.0	8.0	100.0
3.	Cleaning milch animals shed	46	4	50	92.0	8.0	100.0
4.	Milching	42	8	50	84.0	16.0	100.0
5.	Collecting milk payment	50	-	50	100.0	-	100.0
6.	Taking care of milch animals	50	-	50	100.0	-	100.0

*Source:* Computed from primary data

As per this table, 86.0 percent of the respondents were collecting fodders for their milch animals and 14.0 percent depend on their family members for the same, 92.0 percent of the respondents were cleaning of milch animals and 8.0 percent depend on their family members for the same purpose, 92.0 percent were cleaning sheds of their milch animals and 8.0 percent depend on their family members for the similar, 84.0 percent were milching their milch animals to get milk and 16.0 percent depend on either their family members or persons from their respective PMPCSs, cent percent were collecting milk payment (through savings account in bank) by themselves from their PMPCSs and cent percent were taking care their milch animals. Further, this table shows that 86.0

percent of the respondents were collecting fodders for their milch animals from native place/nearby areas/houses and their respective PMPCSs, 92.0 percent were cleaning their milch animals regularly to keep them hygienically, 92.0 percent were cleaning sheds of their milch animals, 84.0 percent were milching their milch animals on time, cent percent were collecting milk payment (through savings account in bank) by themselves from PMPCSs and cent percent were taking care their milch animals.

**Socio-Economic Development:** Every human being wants to improve their individual and their family socio - economic status through income generation activities.

**Table 10:** Selected Indicators of Socio-Economic Development of Respondents

Sl. No.	Socio-Economic Development	Respondents					
		Number			Percent		
		Yes	No	Total	Yes	No	Total
1.	Social recognition from people	50	-	50	100.0	-	100.0
2.	Mutual relation with all people	50	-	50	100.0	-	100.0
3.	Mutual help to all	50	-	50	100.0	-	100.0
4.	Continuous income	50	-	50	100.0	-	100.0
5.	Personal use of dairy income	42	8	50	84.0	16.0	100.0

6.	Saving habits	34	16	50	68.0	32.0	100.0
7.	Personal insurance	23	27	50	46.0	54.0	100.0
8.	Purchasing power increased	50	-	50	100.0	-	100.0

Source: Computed from primary data

According to this table, cent percent of the respondents were getting social recognition from people, cent percent were having mutual relations with all people in their areas, cent percent were doing mutual help, cent percent were getting continuous income, 84.0 percent were using dairy income for their personal use and 16.0 percent were not using the same for their personal, 68.0 percent were having saving habits and the rest 32.0 percent were not having the same habits, 54.0 percent were not having personal insurance and the remaining 46.0 percent were having personal insurance, and cent percent were having feelings that their purchasing power have increased through dairying. Further, this table illustrates that cent percent of the respondents were getting social recognition from people wherever their moving, cent percent were having mutual relations with employees and members of PMPCSs,

relatives, and friends, cent percent were doing mutual help to all people of PMPCSs, neighbours and relatives, cent percent were getting continuous income through dairying, 84.0 percent were using dairy income for their personal purposes like medical, purchase of materials for consumption, clothes, etc, 68.0 percent were having saving habits, 54.0 percent were not having personal insurance due to either non-accessibility or inadequate income after managing their family expenses, and cent percent were having feelings that their purchasing power have increased through dairying after becoming members of PMPCSs.

**Problems in Milk Production:** Milk production boosts the individual household economy of milk producer as well as rural economy and thereby national economy.

**Table 11:** Problems of Respondents and Suggestions made by them

Sl. No.	Major Problems	Respondents	
		Number	Percent
1.	Lower milk procurement price	50	100.0
2.	Non- availability of adequate loans	42	84.0
3.	Inadequate veterinary service	37	74.0
Sl. No.	Major Suggestions	Respondents	
		Number	Percent
1.	Higher milk procurement price	50	100.0
2.	Additional loans from PMPCSs	42	84.0
3.	Modern training for dairying	37	74.0
4.	Supply of adequate milch animal fodders	44	88.0

Source: Computed from primary data

As per the above table, under the problems faced by the respondents, cent percent said that they were getting lower price for milk compared to private milk firms, 84.0 percent opinioned that they were getting inadequate loans from their PMPCSs to purchase milch animals, and 74.0 percent thought that they were getting inadequate veterinary services for their milch animals. Under the suggestions made by the respondents, cent percent unanimously demanded that they want higher price for milk due to cost escalation of milch animal fodders and drought situations, 84.0 percent suggested for additional loans from PMPCSs to purchase additional milch animals, 74.0 percent recommended that they need modern training to carry out dairying and 88.0 percent suggested that they want adequate and varieties of milch animal fodders for their milch animals.

**7. Major Findings**

- It is found from the study that majority (82.0 percent) of the respondents were in the active age group of 29 – 48 years. It seems that they can productively and energetically contribute not only to their socio-economic development but also to the development of their PMPCSs in the study areas.
- It is evident that 66.0 percent were belonging to Backward Class (BC) who are playing major role in

dairying and functioning of PMPCSs

- It is clear that 82.0 percent of the respondents were belonging Hindus who are playing a significant role and responsibility in the effective functioning of PMPCSs in the areas under the study. It seems that dairying have been dominated by illiterates, since it hardly requires higher education like other occupations.
- It is statistically drawn that 52.0 percent were illiterates and 48.0 percent were educated from primary school to secondary school level
- It is obvious that 86.0 percent were involving themselves in dairying alone for their livelihood and income generation in the study areas
- It is apparent that 86.0 percent were having 1 – 2 milch animals to improve their standard of living in the areas under the study
- It is understandable that 86.0 percent were producing upto 15 litres of milk per day both morning and evening through their milch animals
- It is lucid that 86.0 percent were getting upto Rs.6,000.00 as a monthly income through dairying after its related expenses
- It is plain that 86.0 percent were collecting fodder for their milch animals from their native place/nearby areas/houses and their respective PMPCSs, 92.0 percent

were cleaning their milch animals regularly to keep them hygienically, 92.0 percent were cleaning sheds of their milch animals, 84.0 percent were milching their milch animals on time, cent percent were collecting milk payment (savings account in bank) by themselves from PMPCSs and cent percent were taking care their milch animals.

- It is clear that cent percent were getting social recognition from people wherever their moving, cent percent were having mutual relations with relatives, friends, and employees and members of PMPCSs, cent percent were doing mutual help to all people of PMPCSs, neighbours and relatives, cent percent were getting continuous income through dairying, 84.0 percent were using dairy income for their personal purposes like medical, purchase of materials for consumption etc, 68.0 percent were having saving habits, 54.0 percent were not having personal insurance due to either non-accessibility or inadequate income after managing their family expenses, and cent percent were having feelings that purchasing power have increased through dairying
- It is clear that cent percent of the respondents said that they were getting lower price for milk produced by them compared to private dairy firms, 84.0 percent opined that they were getting inadequate loans from their PMPCSs to purchase milch animals, and 74.0 percent thought that they were getting inadequate veterinary services for their milch animals. Under the suggestions made by the respondents, cent percent unanimously demanded that they want higher milk procurement price due to cost escalation of fodders and drought situations, 84.0 percent suggested for additional loans from PMPCSs to purchase additional milch animals, 74.0 percent recommended that they need modern training to carry out dairying and 88.0 percent suggested that they want adequate and varieties of milch animal fodders for their milch animals.

#### 8. Major observations from the field

- It was noticed that women members of PMPCSs could not get free veterinary services for their milch animals on time and prefer private veterinary doctors who are coming and treating their milch animals in their house itself
- It was observed that mostly women members of PMPCSs possessed 'Jersey' variety of milch animals to get more milk than from other varieties of milch animals
- It was observed that some of women members of PMPCSs were also possessing membership in self-help groups and having courage to manage developmental issues
- It was heard that study areas have been affected by monsoon failure and women members of PMPCSs performing various poojas as groups to get adequate rain and eagerly waiting for the raining
- It was heard that women members eagerly waiting for any election to come to waive their milch animal loans from the Government and get new milch animal loans, and
- It was observed that women members of PMPCSs cleaning their milch animals shed twice a day (both morning and evening) and feeding them on time

#### 9. Major Suggestions

- The State government may take appropriate measures to increase milk procurement price on par with private dairy firms. This will motivate the existing members in PMPCSs and attracting new members towards PMPCSs.
- The State government through PMPCSs may take steps to enroll more people who are belonging to Scheduled Caste (SC) as its members to improve their standard of living by getting continuous income through dairying, and
- The State Government may take steps to provide required quantities and varieties milch animal fodders to members of PMPCSs to feed their milch animals

#### 10. Conclusion

PMPCSs have been functioning for the sustainable socio-economic development of rural milk producers, especially for women, downtrodden and weaker sections, through providing regular employment and continuous income generation opportunities on time which leads to rural development. Therefore, the Central and the State Governments have to take appropriate measures to further strengthening of PMPCSs by providing all financial and non-financial assistances and thereby ensuring constant rural development.

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