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Study on socio-economic status of dairy farmers in Kerala

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Abstract

Out of 350 farms surveyed 69.7 per cent belonged to small farm (1-2 cows), followed by 26 per cent medium farms (3-10 cows) and four per cent large farms (more than 10 cows). Majority of dairy farmers were in the age group of 41-60. Most of the farm heads (62%) were male. Nearly 60 per cent followed Hinduism, 39.9 per cent Christianity and 1.1 per cent Islam. Fifty three per cent belonged to general category and majority of dairy farmers (56.6%) had secondary school education. Dairy farmers (48.9%) reported very low monthly income of less than or equal to 1000 rupees. 73.1 per cent of farmers stayed as nuclear families. Land holding of 35.7 per cent dairy farmers were less than or equal to 20 cents while majority of dairy farmers in large category and highlands had land holdings of more than 100 cents. Mixed farming was done by 42 per cent dairy farmers whereas 40 per cent used land for fodder cultivation. Dairying was chosen as livelihood by 56 per cent farmers whereas 14.3 per cent selected dairying as additional income source. Majority of dairy farmers had more than 20 years of experience. Among large category of farms, about one third was youngsters with less than 5 years of experience in dairying.

Keywords: Socio-economic, dairy farmers, national milk, females decreases, Livestock sector plays

Introduction

Livestock sector plays an important role in augmenting family income and generating rural employment to landless and marginal farmers and women. Out of the 2.9 million livestock population in Kerala 13.4 lakh are cattle. Kerala has recorded a 6.24 percent increase in livestock population as per the Cattle census, 2019. The overall milk production of India in 2018-19 was 187749 thousand MT and Kerala contributes about 1.36 per cent of national milk production with 2548 thousand MT. Assessing the prevailing socio economic condition of farmers is a major step towards identifying the technological problems faced by them in dairying. It will also help to assess their knowledge in scientific management and will identify the lacunae, if any. Socio economic status plays an important role in technology transfer and veterinary extension activities. Hence a study was undertaken in five agro climatic zones of Kerala to assess the prevailing socio economic status of dairy farmers.

Material and methods

A survey was conducted in 350 dairy farmers in five different agro-climatic zones of Kerala viz. South, Central, North, Highland and Wetland by observations, interviews and well-designed questionnaire. Two gramapanchayats each were randomly selected from each zone. The panchayaths selected were Ayroor and Ezhumattoor (Pathanamthitta district - South zone), Madakkathara and Pananchery (Thrissur-Central zone), Vaniyamkulam and Ananganady in (Palakkad-North zone), Kainakeri and Chennithala (Wetland) and Elappara and Vandenmedu (Highland). The sample size was determined by probability proportion to size technique. The data received was analysed statistically.

Results and Discussion

Table 1 summarises the results of the survey conducted across Kerala among 350 farms.

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Table 1: Socio-economic status of dairy farmers in Kerala

Particulars		Farm Category		
		Small	Medium	Large
No. of Farmers		244 (69.7)	90 (25.7)	16 (4.6)
Age group (in years)	≤ 40	18 (7.4)	12 (13.3)	5 (31.3)
	41-60	136 (55.7)	51 (56.7)	11 (68.8)
	Above 60	90 (36.9)	27 (30)	0 (0)
Gender	Female	107 (43.9)	23 (25.6)	3 (18.8)
	Male	137 (56.1)	67 (74.4)	13 (81.3)
Religion	Hindu	151 (61.9)	49 (54.4)	10 (62.5)
	Christian	90 (36.9)	41 (45.6)	5 (31.3)
	Muslim	3 (1.2)	0 (0)	1 (6.3)
Caste	General	126 (51.6)	53 (58.9)	6 (37.5)
	OBC	100 (41)	30 (33.3)	6 (37.5)
	SC	17 (7)	7 (7.8)	4 (25)
	ST	1 (0.4)	0 (0)	0 (0)
Level of education	Illiterate	6 (2.5)	2 (2.2)	0 (0)
	Primary	52 (21.3)	20 (22.2)	0 (0)
	Secondary	140 (57.4)	53 (58.9)	5 (31.3)
	Higher secondary	34 (13.9)	13 (14.4)	6 (37.5)
	Degree	9 (3.7)	2 (2.2)	4 (25)
	PG/ Professional	3 (1.2)	0 (0)	1 (6.3)
Income group	≤1000	124 (50.8)	42 (46.7)	5 (31.3)
	1001-5000	63 (25.8)	22 (24.4)	3 (18.8)
	5001-10000	33 (13.5)	13 (14.4)	5 (31.3)
	Above 10000	24 (9.8)	13 (14.4)	3 (18.8)
Type of family	Joint	60 (24.6)	26 (28.9)	8 (50)
	Nuclear	184 (75.4)	64 (71.1)	8 (50)
Land area	NIL	12 (4.9)	4 (4.4)	0 (0)
	≤20 cents	90 (36.9)	32 (35.6)	3 (18.8)
	21-50 cents	74 (30.3)	23 (25.6)	3 (18.8)
	50-100 cents	21 (8.6)	11 (12.2)	2 (12.5)
	Above 100 cents	47 (19.3)	20 (22.2)	8 (50.0)

Values in parentheses are percentages within each category farms

Out of the 350 farms surveyed 69.7 per cent belonged to small farm (1-2 cows), followed by 25.7 per cent medium farms (3-10 cows) and 4.6 per cent large farms (more than 10 cows) (Fig.1). These findings were similar to the results of Prajapati *et al.* (2016) [10] and George *et al.*, (2020) [6]. The proportion of medium and large dairy farms is increasing than the earlier studies which show the trend for commercialization in this sector. The results of the present study were entirely different from the global scenario of dairy farming. Ayenue *et al.* (2009) [2], and Abuelo *et al.* (2019) [1] reported that the herd size of farms was larger than those seen in Kerala.

Age of dairy farmers

Only 10 per cent of dairy farmers were in the age group of 40 and below. The number of large dairy farms run by farmers above 60 was negligible and 31.3 per cent of large dairy farms were run by farmers in the age group 40 or below. The majority of farmers fell in the age group of 41-60 (Fig.2). The necessity of rearing livestock may have become clear to them as they grew older because experience in animal husbandry grows with age. The results are in line with the findings of the studies reported by Prasad *et al.* (2013) [11], Rahman and Gupta (2015) [13], George (2016) [5], Prajapati *et al.* (2016) [10], Biradar (2019) [4] and Raghuvanshi *et al.* (2021) [12]. Slight variation in the findings was due to difference in scales used to classify different age groups.

The proportion of farmers on the age group 41 - 60 was higher in medium farms than in small farms. The result of survey makes it quite evident that the dairy farmers in the state are either middle-aged or elderly. Young age groups made up a relatively small share of the dairy farmers. Only in the category of large farms did the younger generation make their presence noticeable. The findings showed that traditional farmers are still active in this field and that young people are least interested in upholding this sector for a variety of reasons mainly their socio-economic status.

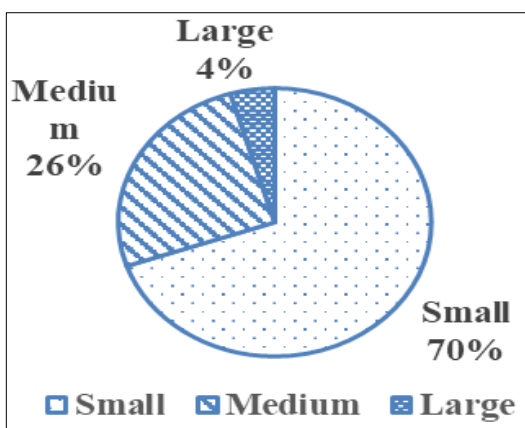


Fig 1: Distribution based on category of farms

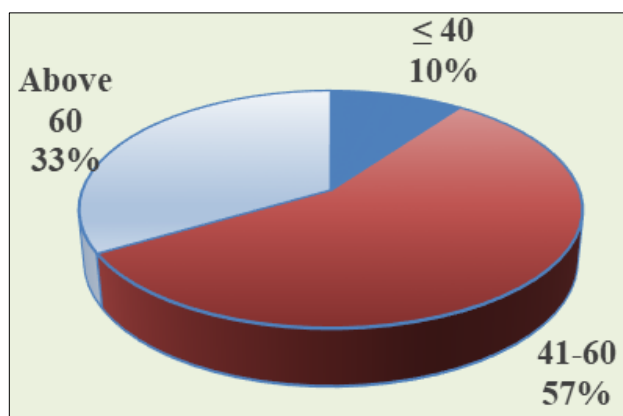


Fig 2: Distribution based on age of farmers

Gender

Fig.3 reveals that majority of farm heads were males. The reported dominance of male farm heads is consistent with findings published by Swai *et al.* (2005) [16] for Tanzania, Thys *et al.* (2005) [17] for the West African situation and Ayenew *et al.* (2011) [2, 3] for Ethiopia. The dominant position of male family heads in economically highly relevant decision making is consistent with the findings of Yoseph *et al.* (2003). Female members in the farm made decisions on subjects such as the amount of milk to be sold and processed (Ayenew *et al.*, 2011) [2, 3]. Among the large farms only 18.8 per cent were led by females. As the farm size increases, the leadership by females decreases (George. 2016) [5].

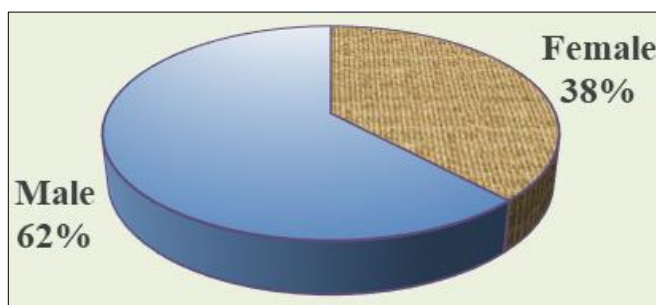


Fig 3: Gender wise Distribution of farmers in the sample

Religion

Nearly 60 per cent of dairy farmers interviewed follow Hinduism, 39.9 per cent Christianity and 1.1percent Islam.

Category based on caste

Among the dairy farmers, 53.1 per cent belonged to general category followed by 38.9 per cent other backward castes, 7.7 per cent scheduled caste and 0.3 per cent scheduled tribe. In a survey conducted in Navsari district of Gujarat, majority of dairy farmers belonged to backward category (Prajapati *et al.*, 2016) [10] while in Kerala, there was no caste discrimination for dairy farming.

Educational status of dairy farmers of Kerala

Fig.4 shows that a majority of dairy farmers (56.6%) in Kerala had secondary school education. The results were akin with the findings of Prasad *et al.* (2013) [11], George (2016) [5], Prajapati *et al.* (2016) [10] and Biradar (2019) [4]. Dairy farmers with post-graduation or professional degree were only one per cent and those with graduation were four per cent. This infers that people with higher educational status taking dairying as

major income source are very few in Kerala. Rathode *et al.* (2013) discovered that among dairy farmers of Western Maharashtra 20.67 per cent were illiterate whereas 37.33 per cent had completed high school and 29.33 per cent had completed college. None of the heads of large farms in Kerala were illiterate and most of them had higher secondary education. Dairying provides an income source for jobless people with medium level of education but dairy farm owners' lack of education may have an impact on the level of possible intensification of dairy output (Ayenew *et al.*, 2011) [2, 3].

The results pointed out the fact that the dairy industry fails to bring in highly educated individuals. The majority of farmers have only secondary school education which may hinder improved extension services. It is encouraging to see that medium-sized and large farms have a higher proportion of educated farmers who considers dairying as a good source of income.

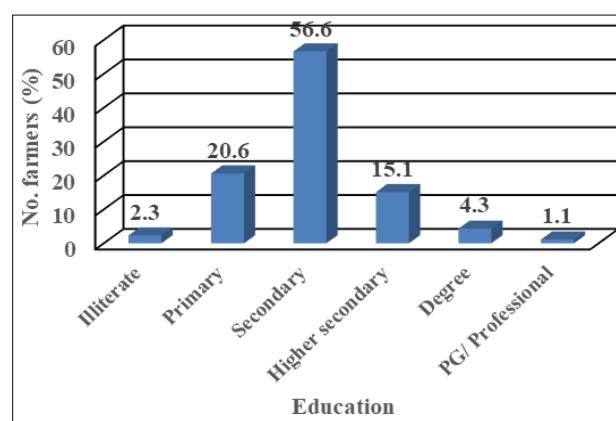


Fig 4: Education level of farmers in the sample

Average monthly income of dairy farmers of Kerala

Majority of dairy farmers (48.9 %) reported very low monthly income of less than or equal to 1000 rupees. The findings were supported by the reports of Birader (2019). Only 11.4 per cent of dairy farmers said to have a monthly income above 10,000 rupees. The results show that dairying is still in the hands of poor, economically backward farmers. Income from dairying is spend for development of the enterprise, savings and family expenses (Lazar, 2014) [9]. Since majority of dairy farmers are in a low income group, economic motivation is very low which negatively affects the farmers to continue in this field and discourages newcomers to this sector.

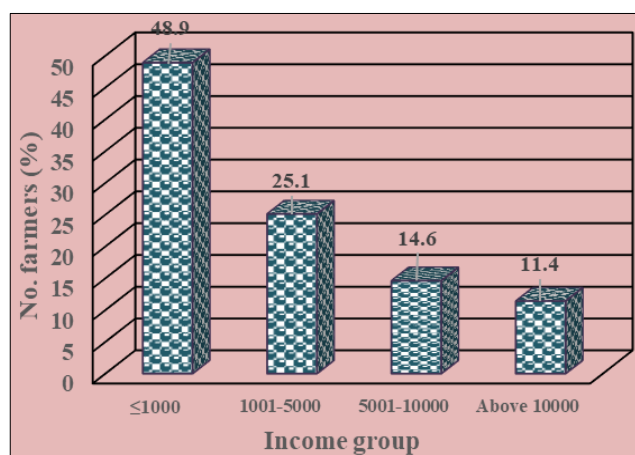


Fig 5: Income status of farmers in the sample

Family type of dairy farmers of Kerala

Majority (73.1%) of the dairy farmers in Kerala, lived in a nuclear family system. The percentage of joint families was more in large farms when compared to small and medium farms. Halakati *et al.* (2007), Sabapara *et al.* (2010)^[15] and Prajapati *et al.* (2016)^[10] had similar reports. With more family members, there is more availability of human resource for the dairy production. Family labour is available to take care of health, breeding and feeding needs and infrastructure in a joint family (Harisha *et al.*, 2019)^[8]. It can be concluded that now a days the farmers are unaware of the advantage of joint family system which is slowly declining with time. It also reflects the general social fabric of Kerala. Most of the large and commercial farms are run by utilising hired labourers.

Land area owned by dairy farmers

Fig.6 shows that the land holdings of majority of dairy farmers (35.7%) were less than or equal to 20 cents. Nearly 4.6 per cent of dairy farmers are landless, 28.6 per cent with 20-50 cents, 9.7 per cent with 51-100 cents, 21.4 per cent had land holdings above 100 cents. The results were entirely different from the earlier reports of Varghese *et al.* (2000)^[18] where 27.68 per cent had holdings worth more than an acre and nearly 10 per cent had less than 50 cents. The results show the fragmentation of landholdings owned by dairy farmers which adversely affected the development of dairy sector in the state.

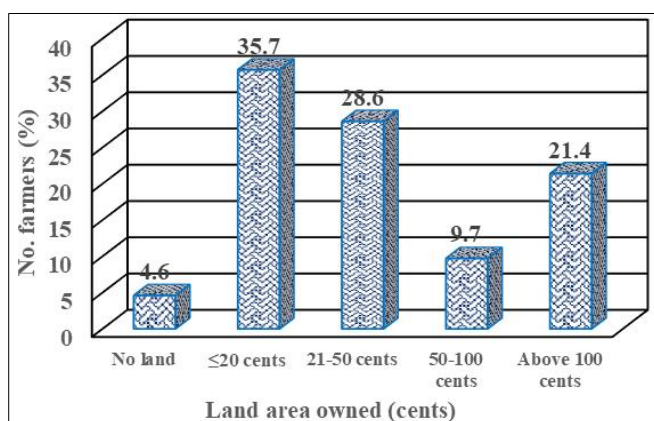


Fig 6: Classification of farmers in the sample based on the land area owned

Conclusion

Dairy sector in Kerala is dominated by small farmers having one to two cows. They have low land holding size and very low income which hinders further development. Steps to augment the income of dairy farmers by value addition of products shall be initiated and popularised. Since majority of farmers have secondary education technology transfer in this regard can be achieved smoothly. Dairy farming in Kerala is done by an ageing group of farmers and fresh entrepreneurs shall be attracted to this field by providing subsidies and sops.

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