Socio – personal and Economic profile of Dairy Farmers in Palakkad District of Kerala

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ABSTRACT

The present study was conducted in Palakkad district of Kerala as a research activity of ASRTC Trust. A Schedule was developed to record socioeconomic profile of the respondents. Data was collected from 240 dairy farmers using questionnaires by personal interview method and was analysed with statistical tools like frequency and percentage. The distribution of farmers according to age observed in the present study was 51.7 per cent in middle age, 46.8 per cent in old age and 1.70 per cent in young age groups. Farmers with education of class X and less accounted for 75.88 per cent of respondents while 17.65 per cent were graduates and 4.12 per cent had post-graduation or higher education. Illiterate farmers accounted to 2.35 per cent of respondents. Majority of farmers were from OBC communities (46%) followed by general (39%) while SC/ST category accounted for 15 per cent of the respondents. Family size was small (less than 5) in 70.4 per cent of respondents and 27.9 per cent of farmers had medium sized families with 6-10 members. About 1.7 per cent of farmers had large families (more than 10 members). Majority of the respondents maintained small herds (65.8%) while 21.3 per cent had medium sized herds. Large herds were maintained by 12.9 per cent of respondents. Majority of the farmers (40.4%) belonged to medium income group, 33.8 per cent had low income and 25.8 per cent had high income. Most farmers had a landholding between 11 cents and up to one acre (45.08%). Almost equal proportions of farmers had less than 10 cents (27.98%) and more than 2 acres (26.94%). Biogas plant was installed by 14.2 per cent of the respondents

Key words: Dairy, Socio-personal, economic, Palakkad, livestock

INTRODUCTION

Palakkad, renowned as the 'granary of Kerala' is its largest district with an area of 4475.8 square kilometer. Palakkad lies between 10º 21' North and 11º 14' North latitudes and 76º 02' East and 76º 54' East longitudes. It borders with, Malappuram district in the North West, Thrissur district in the south west and Tamil Nadu's Coimbatore district in the east. The climate is humid to sub humid and the average annual rainfall recorded in the region is 2171 mm (Premakumar *et al*., 2015). Paddy, coconut, vegetable and rubber forms the major crops cultivated in the district. The bovine population of Palakkad district was 1,75,088 heads including 9,178 buffaloes as per cattle census report of 2012. Agricultural census report (2007) brought out that the size of land holdings in Kerala had

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decreased from 0.28 ha in 1967 to 0.15 ha in 2007. Likewise, livestock census reports indicate that bovine population of the state declined from 33.96 lakhs (1996) to 14.31 lakhs (2012). The article attempts to bring out the differences in the socio economic profile of dairy farmers with emphasis on the standing of Palakkad district vis a vis other south Indian states.

MATERIALS AND METHODS

The present study was conducted among 240 purposively selected dairy farmers in Palakkad district of Kerala as part of a research activity of ASRTC Trust. Schedule was developed for analysing socio-economic profile of respondents in the study area. The parameters investigated were age, education, community, family size, income generated, herd size and land holding. Questionnaire was given to dairy farmers. Some of the respondents were reluctant to disclose details of community, education and land holding. Information collected by personal interview method was analyzed with tools like frequency and percentage.

RESULTS AND DISCUSSION

The results from the present study on social profile of dairy farmers of Palakkad district is summarized in Table - 1. Community and education were not revealed by 16.67 per cent and 29.17 per cent of the respondents respectively.

Table - 1. Social profile of dairy farmers in Palakkad district of Kerala

Characteristics	Classification	Frequency	Percentage
Age (N=240)	Young age (20-40 years)	4	1.70
	Middle age (41-60 years)	124	51.60
	Old age (>61 years)	112	46.70
Family Size (N=240)	Small (<5)	169	70.40
	Medium (6-10)	67	27.90
	Large (>10)	4	1.70
Community (N=240)	General	78	32.50
	OBC	92	38.33
	SC/ST	30	12.50
	Not revealed	40	16.67
Education (N=240)	Up to High School	129	53.75
	Graduate	30	12.50
	Post graduate	7	2.91
	Illiterate	4	1.67
	Not revealed	70	29.17

Majority of respondents in the present study belonged to middle and old ages. Both these groups accounted for 98.3 per cent of sample size. The shift in farmer's age profile towards old age could be an indicator of the reluctance of younger generation to engage in dairying and allied industries; other than sampling bias, if any. However results of a study conducted in Wayanad district (Prasad *et al*., 2017) of Kerala presented a higher level of involvement of young farmers (34%). Hence the age profile of farmers involved in dairying could be highly variable across the state. The probable causes besides socio economic reasons could be the availability of permanent pastures in Wayanad (Anon, 2011) and higher average productivity of crossbred animals calculated from data presented by Rath (2016). In Karnataka the inclusion of young farmers stood at 9.72 per cent (Mali *et al*., 2014) to 17.5 per cent (Mahalakshmi *et al*., 2016). Gopi *et al*. (2017) reported that 23.33 per cent of dairy farmers were in the young age group after conducting a study in Villupuram and Salem districts of Tamil Nadu. Therefore participation of youth in dairying appeared higher in other south Indian states than that in Palakkad district of Kerala (1.7%). The reasons for disengagement of younger generation from dairy farming remains largely obscure and should be studied separately as the remedial measures may involve policy decisions by law makers.

Majority of dairy farmers (70.4%) who participated in the study had small families with 1 to 5 members. In Bangalore North taluk of Karnataka small families operated 40 per cent of the farms (Sathyanarayan *et al*., 2010) which is lower than that observed in the present study. Study conducted by Devasena *et al*. (2015) in Chitoor district of Andhra Pradesh indicated that 54.3 per cent of dairy farmers had small familes. Gopi *et al*. (2017) observed that 73.3 per cent of the dairy farmers had small familes in Villupuram and Salem districts of Tamil Nadu which was marginally higher than that observed in Palakkad. The findings of the present study agree well with national statistics which indicated that average family size (Anon, 2006) was lowest in Tamil Nadu, followed by Andhra Pradesh, Kerala and Karnataka, among south Indian states. However the participation of small families in Andhra Pradesh should have been more than that in Kerala. The discrepancy could be due to sampling error and warrant detailed investigation before drawing any conclusion.

Analysis of educational profile of dairy farmers in Palakkad district indicated that 70.83 per cent were literate. About one third (29.17 %) of the respondents had refrained from revealing their educational status. Higher education (graduation) was gained by 17.65 per cent of farmers with about 4.12 per cent of them being postgraduates. In Kolar district of Karnataka 39 per cent of resource poor dairy farmers were illiterate (Mahalakshmi *et al*., 2016) and in Chitoor district of Andhra Pradesh 42.5 per cent of dairy farmers were illiterate (Devasena *et al*., 2015). Nearly half of the dairy farmers (45%) in Salem &Villupuram districts of Tamil Nadu were illiterate according to Gopi *et al*. (2017). Results from the present study indicate that literacy was higher among dairy farmers of Palakkad district

in comparison with similar regions of south Indian states. Higher literacy among dairy farmers of Palakkad district could be a reflection of it being the state with highest literacy and human development index in India.

The results from the present study on economic profile of dairy farmers in Palakkad district is summarized in Table - 2. Information about land holding was not revealed by 19.58 per cent of the farmers sampled for the study.

Table - 2. Economic profile of dairy farmers in Palakkad district

Characteristics	Classification	Frequency	Percentage
Herd Size (N=240)	Small (<5)	158	65.80
	Medium (6-10)	51	21.30
	Large (>10)	31	12.90
Monthly income (N=240)	Low income (<Rs. 5,000)	81	33.80
	Medium income (Rs. 5,000 to 15,000)	97	40.40
	High income (>Rs. 15,000)	62	25.80
Land holding (N=240)	< 10 Cents	54	22.50
	10 Cents to One Acre	87	36.25
	> 2 Acres	52	21.67
	Not revealed	47	19.58
Biogas Plant (N=240)	Installed	34	14.20
	Not installed	206	85.80

Present study identified that 65.8 per cent of farmers owned small herds and were engaged in Livestock rearing as a livelihood activity. The number of animals maintained by a farmer may remain correlated with per capita land holding since more than one fifth (22.5%) of the respondents from Palakkad district owned less than 10 cents of land. The observations could be justified in the light of the report by Shaharban and Shabana (2015) that 70 per cent of farmers in the state were marginal farmers. The proportion of farmers with medium herd size remained more or less similar in the study area (21.3%) and Chitoor district of Andhra Pradesh (23.7%) as reported by Devasena *et al*. (2015). The same study suggested that farmers maintaining small herds accounted for 74.3 per cent of the total dairy farmers, which is higher than that in Palakkad district. However majority of the farmers (73.3%) in Tamil Nadu had medium sized herds (Gopi *et al*., 2017). Analysis of the results in comparison with other south Indian states indicated that herd size was lower in Palakkad (Kerala) and Chitoor (Andhra Pradesh) whereas farmers in Salem and Villupuram districts (Tamil Nadu) maintained larger herds.

As inferred from the present study, 40.4 per cent of the farmers in Palakkad district belonged to medium income group while 33.8 per cent earned low income and 25.8 per cent earned high returns. In contrast, 96.7 per cent of farmers in Bangalore north

taluk of Karnataka (Sathyanarayan *et al*., 210) and 76.6 per cent of contract dairy farmers of Namakkal district of Tamil Nadu (Kalaivani *et al*., 2017) earned low income. However another study conducted in Vijayapur and Bagalakote districts of Karnataka identified that 32.69 per cent of farmers were in high income group and 48.08 per cent were low earners (Mallu and Teggi., 2017). Therefore the earnings of dairy farmers in the present study could be comparable to certain regions of other south Indian states.

Biogas utilization observed in the present study is lower than that reported from Wayanad district (56%) of Kerala by Prasad *et al*. (2017). Lower adoption of biomethanation technology could be due to economic reasons or the lack of penetration of extension services and government support. Biogas being a renewable resource has large potential for development and utilization in Palakkad district.

Most of the dairy farmers in Palakkad had a landholding of more than 11 cents to one acre (36.25%). Almost equal proportions of farmers had less than 10 cents (22.50%) and more than 2 acres (21.67%) of land. Nearly half of the dairy farmers in Belgaum district of Karnataka (45.83%) had large land holding (Mali *et al*., 2014). In Bengaluru rural district, 89 per cent of the farmers were marginal farmers who owned less than one hectare of land, while 5 per cent were landless (Chandrasekar *et al*., 2017). About two-fifth (39.16 per cent) of the dairy farmers in Chitoor district of Andhra Pradesh were marginal land owners (Gopi *et al*., 2017). With reference to agriculture in Kerala, it was reported that landholding size declined due to population pressure, climate change and decline in profitability (Shaharban and Shabana, 2015). The average land holding of dairy farmers in Palakkad district could be lower than that in other south Indian states. About a quarter of dairy farmers in Chitoor district (27.1%) of Andhra Pradesh and 22.5 per cent of dairy farmers in Villupuram district of Tamil Nadu were observed as landless by Devasena *et al*. (2015) and by Gopi *et al*. (2017) respectively. The real proportion of landless farmers in Palakkad district remained unclear because as many as 47 respondents did not reveal details about their land holdings.

CONCLUSION

The age profile of livestock farmers indicated that the new generation in Palakkad district is moving away from dairying and allied work areas. The reasons for disengagement of younger generation from dairy farming remain largely obscure. The neighboring states have higher involvement of youth in this sector. Higher proportion of dairy farmers in study area had smaller families than those in some comparable regions of other south Indian states. Dairy farmers in Palakkad district maintained smaller herds than that in Tamil Nadu. The average land holding of dairy farmers in Palakkad district could be lower than that in other south Indian states. The participation of landless farmers could not be ascertained as some participants refrained from responding to such questions. About one third of the farmers earned low income from dairy farming in Palakkad district. Adoption of biogas utilization remained low in the study area.

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