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A Study on Socio-Economic Profile of the Dairy Farmers in Aurangabad District, Maharashtra, India

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Abstract: ***If we look at the state's population growth patterns, milk and milk products must be used to ensure both food security and nutritional security. Another possibility is that the populace expresses various concerns like food insecurity, perceived insecurity, unemployment, etc., and the government responds by taking quick and effective action to address these concerns. The current study examines various facets of dairy farming and the current state of milk production, consumption, and sales. The city of Aurangabad was deliberately chosen for the investigation. Two tehsils were randomly chosen from the zone, and two blocks were randomly chosen from each tehsil. Each block has two villages drawn at random. 10% of dairy producers were chosen proportionately and randomly from among all the households in each community. Dairying was the primary occupation of 13.86% of the respondents, whereas the major occupations of 9.32%, 7.50%, and 6.36% of the respondents were labour, business, and services, respectively. In contrast, the majority of respondents (67.50%) chose dairying as their secondary occupation, followed by agriculture (21.59%) with 20.00% of the respondents. The respondents stipulated that at the time of the inquiry, dairy farmers had to have at least one lactating dairy animal. the majority of respondents (43.18%) sold 4 to 7 liters of milk per day, followed by 34.55% and 22.27 % of respondents who sold less than 4 liters and more than 7 liters of milk, respectively. In the study region, agriculture was the main industry and dairying was the secondary one. As increased milk production was the farmers' primary goal, respondents had more crossbred cattle and buffalo than native livestock. Farmers often sell their milk in cooperative societies, while some also sell in independent shops.***

Keywords: ***Occupation, Income, Milk production, Dairy farming, Operational Holding.***

I. INTRODUCTION

Raising cattle, buffalos, goats, or other milk animals for long-term milk production is known as dairy farming. The milk produced by these animals may either be processed locally or sent to an organized dairy for processing (Shinde, 2011, [8]). Dairy farming accounts for the majority of the nation's GDP, although the Livestock Sector's overall contribution to the entire GDP in 2012–13 was close to 4.1% at current prices (NDDB-2012-13).

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For small farmers, marginal farmers, and agricultural laborers in the state, dairy production is a significant source of supplemental revenue. For low- and moderate-income households, dairy farming plays a significant part in both commercial and subsistence farming. The dairy industry has a lot of promise for improving the socioeconomic circumstances of small, marginal farmers and agricultural employees since it produces more and makes profits faster than other businesses. In a shorter amount of time, it has increased the state's income, the creation of jobs, and the labour force. In Aurangabad, dairy farmers raise lactating animals to generate income that is complementary to crop farming. If we look at the state's population growth patterns, milk and milk products must be used to ensure both food security and nutritional security. Another possibility is that the populace expresses various concerns like food insecurity, perceived insecurity, unemployment, etc., and the government responds by taking quick and effective action to address these concerns. The goal of the current study was to examine the socioeconomic status and communication patterns of dairy farmers in the Aurangabad districts.

II. STUDY AREA

The Godavari basin contains the Aurangabad district. The area is located between latitudes 19^0 to 20^0 degrees N and longitudes 74^0 to 76^0 degrees E. The sole significant geological formation in the entire region is the basaltic lava flows of the Deccan Trap, which date from the Upper Cretaceous to the lower Eocene. According to the 2011 census, the district has a total population of 36.95 lakh, or 3.28% of the state's total population. In the Aurangabad district, 20.79 lakes are inhabited by rural residents, whereas 16.16 lakes are inhabited by urban residents. The district contains more than each of the 16 rivers. Many of these rivers now have dams built by the irrigation department, which has already reduced the frequent flooding of the settlements downstream. The district has a great climate. The majority of rural growth hubs and metropolitan communities both have significantly upgraded health services during the previous ten years. The drinking water supply in rural areas has gradually improved, but overall, the situation is not sufficient. The disease starts to spread here, especially in the summer when the majority of wells dry out and drinking water becomes scarce. In the district of Aurangabad, the total literacy rate is 80.40% (See fig. no. 1)

A. Objectives

• To study the socio-economic and personal characteristics of dairy farmers.

• To find out the knowledge of improved dairy management practices.
• To highlight facilitating factors that could help promote dairy development to improve
socio-economic status of milk producers.

B. Materials and Methods:

The purpose of the study was to investigate the various facets of dairy farming as well as the utilization and sales of milk. The Aurangabad district was purposefully chosen for the study. Two tehsils were randomly chosen from the zone, and four blocks were chosen at random from the tehsil. Each block has two villages drawn at random. Out of all the farmers in each community, 10% of them were dairy producers, chosen proportionately and randomly. Thus, 440 samples were taken in total. According to the requirements of the responders, dairy farmers must have at least one dairy cow that is nursing at the time of the research. A structured interview schedule that was created for this purpose served as the main method of data collecting. Age, education, family size, herd size, operational land holding, annual income, dairying experience, milk output, milk use, milk sale, social participation, one-on-one interaction, personal cosmopolite, and media exposure were among the study's variables. Utilizing straightforward statistical tools like frequency and percentage, the acquired data was examined.

III. RESULTS AND DISCUSSION

A. Age:

In order to gain insight into the potential human resources, the age group of the respondents' responses must be known. Table 1 shows that the majority of respondents (50.68%) were in the age range of 36 to 50 years, followed by 29.55 percent of respondents who were older than 50 years of age, and nearly one-fifth (19.77 percent) of respondents were in the age range of up to 35 years. The majority of respondents (70.00%) in the case of member dairy farmers were found to be in the middle age group and up to 35 according to a comparable conclusion by (Atreya et al. 2018 [2]).

B. Education:

When evaluating dairy farmers' knowledge and capacity to adopt sound farming practices, their educational background is a crucial factor. Table: 1's perusal revealed that the bulk of respondents (25.91%) had completed middle-level education, while 21.82 percent had completed secondary education. In addition, it was discovered that 16.59% and 12.05%, respectively, of the respondents, had degrees from secondary and primary education levels. 9.77 percent of respondents, or more than one-tenth, had graduated from high school or above. 8.41 % and 5.45 %, respectively, of the respondents, fell into the functional literacy and illiteracy categories. According to (Prashad et al. 2019 [6]), the study found that the majority (37.95 %) of dairy farmers had a high school diploma or more, followed by intermediate (16 %) and middle school (20.83%).

C. Family Size:

Table 1 shows that more than half (53.41%) of respondents had medium-sized families with five to seven people, while 18.41% of respondents had small families with fewer than five members and 28.18% had large families with more than seven members. According to Prashad et al. 2019 [6]), the majority (81.59 %) of dairy farmers had medium-sized households, which consisted of 5–10 people.

D. Operational land Holding (OLH):

The respondent's actual land holdings were identified in this study. According to Table: 1, the majority of respondents (46.36%) were marginal landowners, followed by small and landowner respondents (24.24 percent and 20.00 percent, respectively). 5.45% of the respondents, a relatively small percentage, had modest land holdings, and 3.94% of the respondents had no land. No one of the respondents owned any land. According to Rajadurai et al. 2018 [1]), the majority of respondents (71.40%) were landless, followed by small farmers (17.70%).

E. Occupation:

The majority of respondents (62.95%) listed agriculture as their primary occupation, according to Table: 1. Dairying was the primary occupation of 13.86% of the respondents, whereas the major occupations of 9.32%, 7.50%, and 6.36% of the respondents were labour, business, and services, respectively. In contrast, the majority of respondents (67.50%) chose dairying as their secondary occupation, followed by agriculture (21.59%) with 20.00% of the respondents. However, only a small percentage of respondents, or 7.05% and 3.86%, respectively, listed labour and business jobs as their secondary occupations. None of the respondents indicated that they would work primarily in the service industry. When starting a dairy farm on a large scale, there are significant upfront costs. Since agriculture and dairying are complementary to one another, the majority of farmers view it as a secondary source of income and continue to operate their dairy farms on a small scale to generate regular income. The majority (84.00%) of respondents identified crop farming as their primary occupation, according to a similar conclusion by Prashad et al. 2019 [6]).

F. Herd Size:

Table 1 shows that around 50.23% of the respondents fit into the medium herd size category, which is 3 to 4, followed by 37.05% who fall into the small herd size category (3), and just 12.73% who fall into the high herd size category (>4). Generally, farmers raised dairy cows for their own use, and any excess milk was sold to milk vendors and milk cooperative societies (PARAG). According to Prashad et al. 2019 [6]), the majority of respondents (53.33%) had modest herd sizes (up to 3 milch animals).

G. Annual income:

According to Table 1, the majority of respondents (58.18%) had medium income levels between 0.75 and 1.5 lakhs, followed by respondents with low-income levels of less than 0.75 lakhs and respondents with high-income levels of more than 1.5 lakhs at 22.05 percent and 19.77 percent, respectively. According to Atreya et al. 2018 [2]), the majority (63.00%) of the Twenty-four percent of member respondents fell into the low annual income category, while thirteen percent fell into the middle and high annual income categories.

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H. Milk production:

The amount of milk produced by breastfeeding animals in liters per day was used to calculate milk production. The majority (39.32%) of respondents had nursing animals that produced 6 to 10 liters of milk per day as they typically did, according to Table 1's aerial view of milk production. Small-scale dairy farming was practiced by 35.95% of respondents, whereas 27.73 percent of respondents had lactating animals. produce milk that is greater than 10 liters and fewer than 6 liters, respectively. According to Prasad et al. 2017 [5]), cattle had average milk output of 66.00%.

I. Milk consumption:

The amount of milk drank by the household of the sampler, expressed in liters, was used to calculate consumption. each respondent's daily basis. Table: 1 analysis revealed that just over half (58.41%) of the respondents drank 3 to 4 liters of milk per day, which was followed by respondents who drank less than 3 liters and more than 4 liters of milk on a daily basis for household consumption, respectively, by 32.27 percent and 9.32 percent of the respondents.

J. Milk sale:

The amount of milk sold by the respondents each day was represented as milk sales. When looking at Table: 1, it was discovered that the majority of respondents (43.18%) sold 4 to 7 liters of milk per day, followed by 34.55% and 22.27 % of respondents who sold less than 4 liters and more than 7 liters of milk, respectively. The majority of respondents (92.50%) had a medium level of milk selling category, according to Koli et al 2020 [3]) research.

K. Social participation:

Table 1 shows that the majority of respondents (50.91%) had a medium degree of social activity, followed by respondents who had low and high levels of participation (32.05% and 17.05%, respectively). Because some farmers participated in cooperative societies as members, the respondents' social participation was satisfactory. According to Sachan 2013 [7]), the majority of respondents (65.00%) had a low level of social participation, while 28.00% had a medium level.

L. Mass media exposure:

Given that most farmers have smartphones, internet connections, televisions, etc., Table: 1 shows that nearly half of respondents (46.81%) had medium exposure to mass media, followed by 35 percent and 18.18 percent of respondents who had low and high exposure, respectively. In their study, Manjunath et al. 2020 [4]) found that the majority (60.00%) of respondents had a medium amount of exposure to the media.

IV. CONCLUSION

In Aurangabad, small and marginal farmers rely heavily on the money generated by the dairy industry. The majority of responders had a medium level of age, according to the survey. In the study region, agriculture was the main industry and dairying was the secondary one. As increased milk production was the farmers' primary goal, respondents had more crossbred cattle and buffalo than native livestock. Farmers often sell their milk in cooperative societies, while some also sell in independent shops. Respondents had a moderate amount of exposure to the media because the majority of farmers had smartphones, internet connections, televisions, etc. Respondents' social participation was good because some farmers were members of cooperative societies.

DECLARATION

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Authors Contributions	All authors conceived and designed the study. All authors contributed to manuscript revisions. All authors approved the final version of the manuscript and agree to be held accountable for the content therein.

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Table 1: Socio-Economic and Communication Respondent (n=440)

Category		Frequency Percentage	Frequency Percentage
Age	Young age (up to 35)	87	19.77
	Middle age (36-50)	223	50.68
	Old age (above 50)	130	29.55
Family Size	Small (<5)	81	18.41
	Medium (5to7)	235	53.41
	Large (>7)	124	28.18
Education	Illiterate	24	5.45
	Functionally literate	37	8.41
	Primary	53	12.05
	Middle	114	25.91
	Secondary	96	21.82
	Intermediate	73	16.59
	Graduate and above	43	9.77
Occupation			
Primary	Agriculture	277	62.95
	Dairying	61	13.86
	Service	28	6.36
	Business	33	7.50
	Labor	41	9.32
Secondary	Agriculture	95	21.59
	Dairying	297	67.50
	Business	17	3.86
	Labor	31	7.05
Herd size	Small (<3)	163	37.05
	Medium (3to4)	221	50.23
	Large (>4)	56	12.73
Operational land holding	Landless (0 ha)	37	8.41
	Marginal	187	42.50
	Small 1-2 ha	110	25.00
	Semi-medium 2.1-4 ha	87	19.77
	Medium 4.1-10 ha	19	4.32
	Large >10 ha	0	0.00
Annual Income	Low (<0.75 lakh)	97	22.05
	Medium (0.75to1.5 lakh)	256	58.18
	High (>1.5 lakh)	87	19.77
Milk production	Low (<5)	122	27.73
	Medium (5to9)	173	39.32
	High (>9)	145	32.95
Milk consumption	Low (<2)	142	32.27
	Medium (2to3)	257	58.41
	High (>3)	41	9.32
Social participation	Low (<3)	141	32.05
	Medium (3to5)	224	50.91
	medium (>5)	75	17.05
Milk Sale	Low (<4)	152	34.55
	Medium (4to7)	190	43.18
	High (>7)	98	22.27
Mass Media Exposure	Low (<7)	154	35
	Medium (7to8)	206	46.81
	High (>8)	80	18.18

Source: Data Collected during fieldwork

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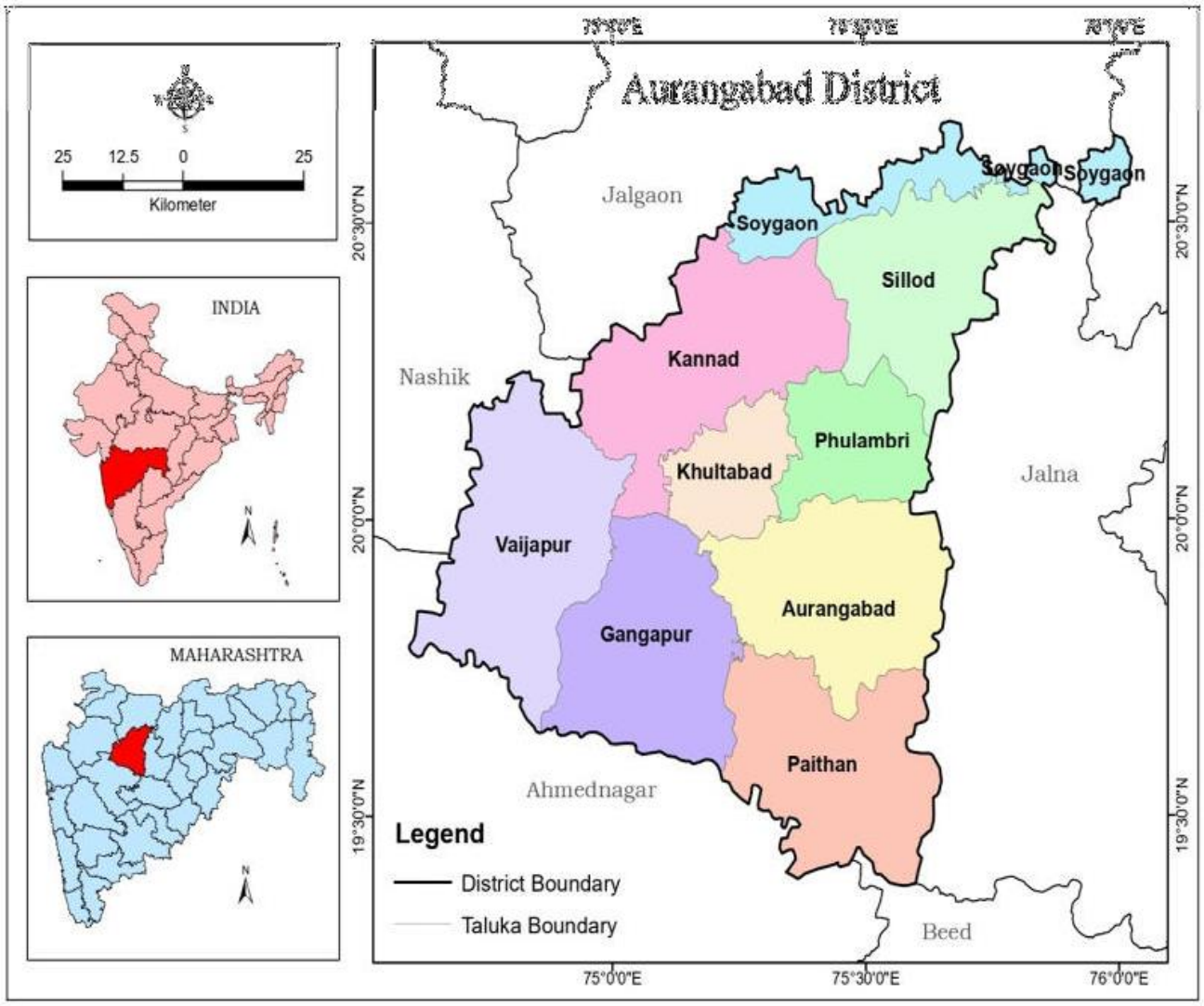

Fig. 1.