

Original Research Article

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## Socio Economic Profile of Farmers Rearing Gir Cattle in Karnataka, India

K. R. Naveen, K. C. Veeranna, G. T. Gopala, M. Harisha, T. Thirumalesh,  
V. B. Shettar and G. K. Udupaal

Department of Veterinary and Animal Husbandry Extension Education,  
Veterinary College, Shimoga, Karnataka, India

*\*Corresponding author*

### ABSTRACT

Gir is a famous Indian cattle breed well-known for its milk producing ability, easy maintenance and resistance to diseases. The present study was conducted in 21 districts of Karnataka and the data was collected from 90 respondents through pre-tested interview schedule. All the age group members were involved in Gir cattle rearing in the study area, in which half (50.00%) of the respondents were in middle age group, 93.33 per cent were males and only 6.67 per cent were females. Majority (52.52%) of the Gir farmers was graduates and belonged to OBC category (75.56%). The main occupation was agriculture (43.33%) followed by business (24.44%). About three fourth (74.44%) of the respondents belonged to joint family with medium family size (56.67%) and they possessed medium land holding (33.33%) with a high annual income (52.22%). Among the respondents 43.33 per cent possessed only Gir cattle and 35.56 per cent had Gir and other indigenous, less than half (44.44%) of the respondents had small herd size, while 78.89 per cent had low experience in Gir cattle rearing and majority (80.00%) purchased the Gir cattle from the native tract. More than half (53.33 %) of the respondents had low extension contact. Majority (73.33%) of the respondents identified their Gir cattle by names and more than half (63.33%) of the respondents reared Gir cattle under semi intensive method.

#### Keywords

Gir cattle, Rearing,  
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### Introduction

Agriculture and allied activities like animal husbandry forms the backbone of rural Indian economy, as it improves family income and generates gainful employment in the rural sector. Rearing farm animals beside agriculture is routine activity of farming community in India and large numbers of

farmers depend on animal husbandry for their livelihood. The total bovine population (Cattle, Buffalo, Mithun and Yak) of India as per 2012 animal census is 299.9 million which shows a decline of 1.57 per cent over previous census. The total number of cattle in the country is 190.90 million. The bovine contributes around 37.28 per cent of the total livestock population and over 79 per cent of

the cattle population is indigenous. Further there is a decline of 8.94 per cent in indigenous cattle population compared to 18<sup>th</sup> animal census (Livestock census, 2012).

The bovine genetic resource of India is represented by 43 recognized indigenous breeds of cattle and 16 breeds of buffaloes (NBAGR, 2019). Indigenous cattle in India are robust and resilient and are particularly suited to climate and environment of their respective breeding tracts. They are endowed with qualities of heat tolerance, resistance to diseases, ability to thrive under extreme climatic stress and less than optimal nutrition (Kumar *et al.*, 2017). Among indigenous breeds, Gir cattle breed is well-known for its milk producing ability, good fertility, heat tolerance, easy maintenance, resistance to diseases and longevity (NDDDB, 2017). In the recent years, few religious institutions in Karnataka have started rearing Gir cattle. The main intension of rearing Gir cattle is to familiarize the breed in Karnataka and to practically demonstrate rearing of cattle, its productivity and utility. Inspired by this, people in Karnataka started rearing Gir cattle across different districts.

### **Materials and Methods**

The present study was conducted in various districts of Karnataka where Gir cattle rearing was predominant and a total of 90 Gir cattle rearers were selected by snow ball sampling method. The data was collected through a pre tested interview schedule which was developed in consultation with the experts in the field of animal husbandry extension and by reviewing the relevant literature. The selected respondents were personally interviewed to collect the data. It was made sure that all questions were self-explanatory and each of the farmers was interviewed in their local language personally by the investigator and participatory observation

technique was also employed for primary data collection. The data collected was coded, tabulated and subjected to suitable statistical tools in order to draw the results and inferences.

### **Results and Discussion**

Table 1 revealed that, half (50.00%) of the Gir cattle rearers belonged to middle age group. These findings were in line with the findings of Divekar (2005), Rupeshkumar and Chandawat (2011) and Kumar *et al.*, (2015). The results were indicative that, middle age respondents possess more physical vigor and they like to experiment with new rearing practices and in turn develop the farm to improve the family income. Therefore, more of middle age farmers were taking up livestock rearing practices as income generating activity. With respect to sex of the respondents, majority (93.33%) of the Gir cattle rearers were males and only 6.67 per cent were females. These findings were similar to the findings of Devaki *et al.*, (2016), Khan and Chander (2016), where majority of the respondents were males. With respect to education of the respondents, majority (52.52%) of the Gir farmers had graduation followed by PUC (14.44%), post-graduation (12.22%), middle school (6.67%) and 5.56 per cent studied up to primary school education. The results clearly showed that almost all the farmers had some level of education. It was good to note that degree holders and post graduates were more involved in Gir cattle rearing. These findings were in line with findings of Desai *et al.*, (2012).

The study also revealed that, majority (75.56%) of the respondents belonged to OBC category followed by general category (23.33%). This was mainly because of the fact that, OBC and general category respondents possessed large land holdings and income which prompted them to try and experiment

new rearing practices compared to SC (1.11%) and ST category. The findings were in line with findings of Divekar (2005). It was observed that, 43.33 per cent of the respondents had agriculture as their main occupation which was due to continuation of ancestral traditional occupation of agriculture along with livestock rearing.

Involvement of businessmen (24.44%) and other working professionals (23.33%) could be attributed to the fact that, their purpose of Gir cattle rearing was mainly for passion and to conserve indigenous cattle. Rathod *et al.*, (2011) observed same type of trend.

About three fourth (74.44%) of the respondents belonged to joint family and remaining one fourth (25.56%) of them belonged to nuclear family. Same type of family status was observed by Divekar (2005) in which he reported that majority (65 per cent) of the Gir farmers belonged to joint family. In the family size, majority (56.67%) of the respondents belonged to medium size family followed by small (27.78%) and large (15.56%) family size. These findings were in conformity with the findings of Kumar *et al.*, (2015) who reported that, more than half (55.83%) of the respondents were of medium family size.

Land holding of the respondents revealed that, medium landholding respondents were 33.33 per cent followed by large farmers (25.56%) which was due to the reason that, Gir cattle rearing was preferred by medium and large farmers for the manure purpose. More than half (52.22%) of the respondents had high annual income because majority of the Gir farmers possessed good amount of land and had diverse occupation along with Gir cattle rearing. Among livestock possession, 43.33 per cent of the respondents possessed only Gir cattle followed by Gir and other indigenous cattle (35.56%) as most of the Gir cattle rearers showed interest only in indigenous

cattle rearing. They have a belief that indigenous cow milk and its products are healthier compared to cross bred cow milk. Similar findings were reported by Kumar *et al.*, (2017) where they observed that majority (42.22%) of the respondents maintained their herd by keeping indigenous cattle alone.

With respect to extension contact, more than half (53.33%) of the respondents were having low extension contact followed by medium extension contact (37.78%).

This could be attributed to the fact that majority of the respondents were solely dependent on social media for information and were having less contact with subject matter specialists in KVKs and universities. Similar findings were noted by Kumar *et al.*, (2015) where they observed that, more than half (54.17%) of the livestock farmers had medium level of extension contact.

As per Table 2, the study also revealed that, 44.44 per cent of the respondents had small herd size of Gir cattle followed by medium (30%) and large (25.56%) herd size.

The size and type of livestock possession was influenced by purpose of rearing. With respect to experience in Gir cattle rearing, majority (78.89%) of the respondents had low experience in Gir cattle rearing as Gir cattle rearing and its trend started in recent years in Karnataka.

Few respondents had medium (14.44%) and high (6.67%) level of experience as they were the ones who first initiated Gir cattle rearing in Karnataka. Majority (80.00%) of the respondents purchased the Gir cattle from their native tract. This could be due to the reason that, Gir cattle are not a native breed of Karnataka hence their availability in Karnataka is less.

**Table.1** Distribution of respondents based on personal and socio-economic profile

Sl. No.	Variables	Categories	Respondents (N=90)	
			Frequency	Percentage
1	Age	Young age ( 18 to 30)	12	13.33
		Middle age ( 31 to 50)	45	50.00
		Old age ( >50)	33	36.67
2	Sex	Male	84	93.33
		Female	6	6.67
3	Education	Illiterate	0	0
		Primary school	5	5.56
		Middle school	6	6.67
		High school	8	8.89
		PUC	13	14.44
		Graduation	47	52.22
		Post-Graduation	11	12.22
4	Social group	General	21	23.33
		OBC	68	75.56
		SC	1	1.11
		ST	0	0.00
5	Occupation	Agriculture	39	43.33
		AH	8	8.89
		Business	22	24.44
		Other profession	21	23.33
6	Family type	Nuclear family	23	25.56
		Joint family	67	74.44
7	Family size	Small(up to 4)	25	27.78
		Medium(5-8)	51	56.67
		Large(>8)	14	15.56
8	Land holding	Landless	1	1.11
		Marginal farmers	9	10.00
		Small farmers	11	12.22
		Semi-medium farmers	16	17.78
		Medium farmers	30	33.33
		Large farmers	23	25.56
9	Annual income	Low (up to 5 lakh)	20	22.22
		Medium (5.01-10 lakh)	23	25.56
		High (>10 lakh)	47	52.22
10	Livestock possession	Gir cattle	39	43.33
		Gir and other indigenous cattle	32	35.56
		Gir and cross breed cattle	11	12.22
		Gir, other indigenous cattle and cross breed cattle	8	8.89
11	Extension contact	Low (3-7)	48	53.33
		Medium (8-11)	34	37.78
		High (>11)	8	8.89
		<b>Mean= 6.79</b>	<b>SD=2.46</b>	

**Table.2** Distribution of respondents based on Gir cattle possession

Sl. No.	Variables	Categories	Respondents (N=90)	
			Frequency	Percentage
1	Gir cattle herd size	Small (Up to 10)	40	<b>44.44</b>
		Medium (11-30)	27	<b>30.00</b>
		Large (More than 30)	23	<b>25.56</b>
2	Rearing experience	Low (<5 yrs.)	71	<b>78.89</b>
		Medium (5-10 yrs.)	13	<b>14.44</b>
		High (> 10yrs)	6	<b>6.67</b>
3	Source of animal purchase	Native tract of Gir	72	<b>80</b>
		Local farms	3	<b>3.33</b>
		Individual farmers	14	<b>15.56</b>
		Goshalas	1	<b>1.11</b>
4	Identification of cattle	Ear tag	18	<b>20</b>
		Naming	66	<b>73.33</b>
		Ear tag and name	6	<b>6.67</b>
5	System of rearing	Intensive	33	<b>36.67</b>
		Semi intensive	57	<b>63.33</b>
		<b>Extensive</b>	<b>0</b>	<b>0</b>

Majority (73.33%) of the respondents identified their Gir cattle by names as they were having small and medium herd size which made them easy to identify animals by naming. About one fifth (20%) of the respondents identified their cattle through tag numbers as they had large herd size. Majority (63.33%) of the respondents reared Gir cattle under semi intensive method as majority had agriculture land which was used for cattle grazing and they were of the opinion that Gir cattle performance was better when allowed for grazing.

Roughly one third (36.67%) of the respondents maintained animals under intensive system due to shortage of free grazing land and were facing shortage of manpower which forced them to keep animals indoor. Similar findings were noticed by Radder *et al.*, (2010) who found that, majority (98%) of the respondents reared animals under semi intensive system.

Majority of Gir cattle farmers in Karnataka belonged to middle age group, males, graduates, OBC category, involved in agriculture with joint families of medium size and medium land holding who had high income, possessed Gir cattle of small herd size with low experience of cattle rearing and low extension contact. Majority of Gir cattle farmers identified their cattle by names and reared animals under semi intensive method.

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