



DEMOGRAPHIC PROFILE AND MANAGEMENT PRACTICES OF TRIBAL GOAT FARMERS IN NADIA DISTRICT OF WEST BENGAL

KEYWORDS

Demographic profile, Tribal goat farmers, Housing and feeding systems

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ABSTRACT

The present study was conducted in Nadia district of West Bengal during January, 2010 to December, 2012 with two specific objectives, viz., (i) to study the demographic profile of the Tribal goat farmers and (ii) to study the housing and feeding systems followed by the Tribal goat farmers for keeping goats. Women members of farmers' family played a major role (61.33%) in the rearing of goats. Goat farming is much popular amongst the landless, small marginal farmers (49.33%), followed by the agricultural labourers (33.33%), whereas, only 12% of small business holders and 5.33% of service men are involved in goat rearing. Survey indicated that majority of farmers kept their goats confined during night only (54.66%). Farmers housed their goats with other animals (36%) and with themselves in their dwelling places (9.33%); 54.66% farmers kept their goats separately. From socio-economic profile study, it can be said that goat farming is still an occupation of poor ST community.

INTRODUCTION

Goat is one of the earliest discoveries of mankind in pre-historic times as a ready and easy source of meat. Goats play a vital role in the economy of poor dwellers living in diverse climatic conditions of India. In rural areas goat keeping generates employment at the rate of 4.2% per annum (Dhara et al., 2008). Goats are considered as the fixed deposits for the poorest of the poor supplying fund as and when necessary by virtue of their ready market demand (Sahoo et al., 2004). India is rich in goat population (16.7% of world share) and its genetic biodiversity (FAO, 2010). On the other hand, the state of West Bengal has the 2nd highest goat population (150.69 lakh, All India Livestock Census, 18th, 2007) in the country (with 10.7% of the country's share). Keeping in view of its importance for socio-economic development of poor people mainly Scheduled Tribes (ST) community a study was conducted with two specific objectives, viz., (i) to study the demographic profile of the tribal goat farmers and (ii) to study the housing and feeding systems followed by the farmers for keeping goats.

MATERIALS AND METHODS

The present work was done in Nadia district in the state of West Bengal during January, 2010 to December, 2012. The Nadia district is selected purposively. Nadia district lies between 22°52'30" and 24°05'40" parallels of North latitudes and 22°08'10" and 88°48'15" meridians of East Longitudes. It is bounded on the North and North-West by the district of Murshidabad. On the North-East and East it is bounded by the districts of Rajshahi and Kushthia of Bangladesh. In the South and South-East, the district is bounded by the district of North 24 Parganas. Considering the need for availability of data and accessibility of the area, five villages viz. Mollabelia, Panpur, Kurumbelia, Nischintapur and Madhpur of the Nadia district of West Bengal are selected purposively for the present study. Seventy five farmer families from five villages, of which fifteen families belonged to each village belonging to Scheduled Tribes (ST) community, were randomly selected. A pilot study has been carried out, and accordingly a structured interview schedule has been constructed. The data has been collected through face-to-face interview and by direct observation method. Data

pertaining to farmers' socio-economic parameters, viz. sex, education, occupation and annual income of farmers were recorded. Information on housing and feeding systems of goat rearing like housing duration, housing location, type of houses, type of floor, roofing pattern, feeding and grazing pattern were recorded. Data were analyzed following the standard statistical methods (Snedecor and Cochran, 1967).

RESULTS AND DISCUSSION

Socio-economic profile of goat farmers

The socio-economic profile of the goat farmers in terms of sex, education and income is presented in Table 1.

'Table 1 about here'

Sex

Women members of farmers' family played a major role (61.33%) in the rearing of goats. However, the male members of the family were also involved (38.66%) in rearing of the animals (Table 1). Almost entire activities, so far as washing and cleaning of goat sheds and feeding of goats, were being performed by the women. Male members were used to take decision in selling or purchasing of goats. Breeding of the does was mostly arranged by male members, while parturition was attended by the female members. The present finding is supported by the earlier workers (Nandi et al, 2011 and Samanta et al, 2009). Miazzi et al. (2008) also observed that the rural women can play an important role in goat rearing because the enterprise of goat is mostly cared by them.

Educational status

Goat farmers under study were illiterate (66.66%); out of which 22.66% were male and 44% were female (Table 1). This finding is corroborated with findings of Samanta et al. (2009) and Nandi et al. (2011) who reported that the maximum goat farmers are illiterate in both sexes.

Occupation

Goat farming is much popular amongst the landless, small marginal farmers (49.33%), followed by the agricultural labourers (33.33%), whereas, only 12% of small business holders

and 5.33% of service men are involved in goat rearing (Table 1). Tudu *et al.* (2004) observed that the tribal goat-keeping respondents were marginal farmers; had a small herd size; were engaged in agriculture as their main occupation. Samanta *et al.* (2009) reported that 57.44% of the farmers were dependent on both agriculture and animal Husbandry as main source of earning. 23.08% depended only on Agriculture and 8.31% of farmers solely depended on Animal Husbandry. Nandi *et al.* (2011) reported that the goat farming was more popular amongst the landless, small and marginal farmers (58.1%).

Income of farmers' family

Annual income of most of the goat farmers (60%) was within Rs. 15000, and 28% farmers earned medium annual income (Rs. 15000-25000), and only 12% farmers earned more than Rs. 25000 per year (Table 1). Tudu *et al.* (2004) observed that the tribal goat-keeping respondents were earning less than Rs. 7000 per year from all sources. Samanta *et al.* (2009) reported that annual income of most of the goat farmers (40.11%) was within Rs.5,000.00, whereas 24.36% and 27.09% farmers earned Rs. 5-10 thousands and 10-20 thousands respectively; and only 8.80% farmers earned more than Rs.20 thousands per year. Nandi *et al.* (2011) reported that the annual income of most of the goat farmers (64.47%) was within Rs. 10,000, and 26.73% farmers earned within Rs 10,000-20,000, and only 8.80% farmers earned more than Rs. 20 thousands per year.

Goat housing and feeding systems

Goat housing and feeding systems followed by the goat farmers in the selected villages of Nadia district is presented in Table 2.

'Table 2 about here'

Goat housing system

Survey indicated that majority of farmers kept their goats confined during night only (54.66%), some farmers kept their goats confined during both day and night (17.33%) and no housing was provided to goats in 28% cases. Farmers housed their goats with other animals (36%) and with themselves in their dwelling places (9.33%); 54.66% farmers kept their goats separately. Results indicated that 52% farmers housed their goats in kachcha house, 22.66% in pucca and 25.33% in partially pucca house. Floor was found to be earthen floor (57.33%), brick finished (22.66%) and cemented floor (20%). Roofing pattern was found to be covered (25.33%), half covered (62.66%) and open (12%) (Table 2). Sahoo *et al.* (2004) observed that the farmers used varieties of materials for construction of goat house and only 8.5 % used brick in earthen or cement mortar. He also observed that goats were housed separately (63.5%), with other animals (16.7%) or along with human being in their residence (19.8%). Singh and Rai (2004) observed that goat shelters were made of local materials with inadequate floor space and ventilation.

Goat feeding system

From the survey data it was found that 100% of the goats were reared through grazing. Of this 70.66% farmers allowed their goats for grazing from morning to noon, and 29.33% farmers allow animals to graze separately in morning and afternoon with a rest at noon. During critical period, very few farmers used mainly mineral mixture and concentrate feed along with tree leaves and tree tops. About 39.5% of small flock holders used to rear goats by tethering where facilities for grazing are limited. This simple device has made possible of keeping goats out-of-doors

and at the same time on a limited area. Farmers reared the animals by individually (57.5%) as well as by group or community (33.5%). Pond water as the source of water for goats was found to be very common (43.5%) and in only 23.5% cases farmers used well water and 33.5% tube well water (Table 2). Sahoo *et al.* (2004) observed that 54.4% farmers had arrangement for feeding and watering in their goat houses. The farmers used bucket (46.2%), metal tub (46.4%) and earthen pot (7.4%) for supplying drinking water to the animals.

CONCLUSION

From the present study, the following conclusions may be drawn:

From socio-economic profile study, it can be said that goat farming is still an occupation of poor ST community. For any goat improvement programme, female members should be engaged in training programme. Training should be offered in such a way that illiterate people can follow this.

From housing system study, it can be said that awareness programme should be strengthened in light of providing housing to the goats as 28.00% family provided no housing for their goats, which is essential for scientific goat production management; goat farming away from human dwelling as they may transmit zoonotic diseases; and improving the condition of the goat houses including floor and roof.

From feeding system study, it can be said that due to warm and humid noon, it is better to reschedule the grazing pattern – morning and after-noon. As a sizeable number of farmers provide pond water for drinking purpose, the quality of pond water should be taken care of to reduce the water borne diseases.

Table 1: Socio-economic profile of Tribal goat farmers in selected villages of Nadia district of West Bengal

Variables	Category	Total number	Percentage (%)
Sex of farmers	Men	29	38.66
	Women	46	61.33
Education of farmers	Illiterate male	17	22.66
	Primary standard male	9	12.00
	Secondary standard male	3	4.00
	Illiterate female	33	44.00
	Primary standard female	7	9.33
Occupation of farmers	Secondary standard female	6	8.00
	Landless, small and marginal farmers	37	49.33
	Agricultural labourers	25	33.33
	Small business holders	9	12.00
Annual income	Service men	4	5.33
	Low income group (within Rs. 15000.00)	45	60.00
	Medium income group (Rs. 15000.00-25000.00)	21	28.00
	High income group (Above Rs. 25000.00)	9	12.00

Table 2: Goat housing and feeding systems followed by the Tribal goat farmers in selected villages of Nadia district of West Bengal

Variables	Category	Total number of families rearing goats	Percentage (%)
Housing duration	Night only	41	54.66
	Both day and night	13	17.33
	No housing	21	28.00
Housing location	With other animal	27	36.00
	With human	7	9.33
	Separately	41	54.66
Type of houses	Kachcha	39	52.00
	Pucca	17	22.66
	Partially pucca	19	25.33
Type of floor	Earthen floor	43	57.33
	Brick finished	17	22.66
	Cement floor	15	20.00
Roofing pattern	Covered	19	25.33
	Half covered	47	62.66
	Open	9	12.00
Feeding pattern	Grazing		
	Grazing from morning to noon	53	70.66
	Grazing separately in morning and afternoon	22	29.33
	Tethering		
	Adoption of tethering grazing	49	65.33
	Grazing without tethering	26	34.66
	Source of drinking water		
	Pond water	25	52.00
	Well water	11	33.33
	Tube well water	39	14.66

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