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Socio-economic status of goat farmers in Gorakhpur district of Uttar Pradesh

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Goat is known as 'Poor man's cow' in India and is a very important component in farming system. In rural areas of developing countries, the contribution of goats is highly valued and has an important role in feeding the populations, an item that is often not adequately recognized when comparing goats with sheep and cattle. Livestock helps on food supply, family nutrition, family income, asset savings, soil productivity, livelihoods, transport, agricultural traction, agricultural diversification and sustainable agricultural production, family and community employment, ritual purposes and social status (Moyo *et al.* 2010). In marginal or undulating lands unsuitable for other types of animals like cow or buffalo, goat is the best alternative. With very low investments goat rearing can be made in to a profitable venture for small and marginal farmers. Being small-sized animals, goats can easily be managed by women and children. Feeding, milking and care of goats does not require much equipment and hard work. Capital investment and feeding costs are also quite low. Goat rearing is an enterprise which has been practiced by a large section of population in rural areas. The animal can thrive well on wide variety of bushes, weeds, crop residues, and agricultural by-products unsuitable for human consumption. Goats equip are also used in ceremonial feastings and for the payment of social dues. In addition to this, goat has religious and ritualistic importance in many societies. Technological and management intervention are the only alternatives to accelerate growth in the productivity of goats, which is low in the traditional system of production (Shalander 2007). Keeping the importance of goat farming for poor, an attempt has been made to study the socioeconomic status of goat farmers in the villages of Gorakhpur district which falls under North East Plane Zone of Uttar Pradesh.

Present Study was carried out in 2020 to study the socio-economic status of goat farmers in adopted villages, survey was conducted in 10 villages of 115 goat farmers, viz. Mustafabad, Chaukmafi, Pachgawa, Chandbari, Mahmudabad, Jogia, Govindpur, Nayagaon, Madanpura and Bhandaro of Gorakhpur district. All the households rearing goat from these villages were finally selected for detailed investigation. The households were stratified into landless, marginal, small and large (>2 ha) on the basis of landholding. The data were collected through personal interview on personal, socio-economic characteristics of goat farmers. The other important indicators of goat farming are veterinary care, vaccination, and housing management. These indicators were identified and keeping its relevance to goat farmers. The data collected were tabulated and statistical tools like frequency and percentage were used for logical conclusion.

Personal and socio-economic household characteristic of the goat keepers are presented in Table 1. It could be observed that more than half the goat farmers lived in nuclear type family followed by joint family type (Table 1). So, it can be concluded that joint family system is slowly declining in due course of time even in rural villages. The highest frequency of average family size was 5–8 persons followed by 1–4 persons and >9 persons. Further it was found that more than three fourths of the respondents were men who were the decision makers of the family, followed by women and both (Table 1). The findings were in consonance with the findings of Sathyanarayan *et al*. (2009). Farmers should be encouraged to discuss and take decisions together which would strengthen the family bondage as well as help them to take right decisions and feel united also. It is a good sign that majority of the farmers had membership in Gram panchayat followed by cooperative societies/banks and also common membership in Gram panchayat and Cooperative societies/Banks (Table 1).

There were no similarities among indicators of all personal and socio-economic household characteristic of the goat keepers in the study area.

Majority of the respondents were landless followed by marginal, small and large (Table 1). The average land-holding size of household heads was highest in landless, marginal, small, and large family, respectively. Majority of goat farmers belong to landless and marginal categories indicate that majority of goats are reared by farmers who have no or little land. These results are agreement with

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Table 1. Socio-economic characteristics of the goat farmers

Socio-economic characteristics	Frequency	Percentage value	Chi-square
Family type			7.3** (df=1)
Nuclear family	72	62.61	
Joint family	43	37.39	
Family size			38.4** (df=2)
1–4	53	46.09	
5–8	55	47.83	
>9	7	6.09	
Decision maker of the family			35.5** (df=2)
Man	67	58.26	
Women	16	13.91	
Together	32	27.83	
Social participation			22.2** (df=2)
Gram panchayat	62	53.91	
Co-operative society/banks	29	25.22	
Both	24	20.87	
Land holding			61.8** (df=3)
Landless	61	53.04	
Marginal (less than 1 ha)	34	29.57	
Small (1–2 ha)	12	10.43	
Large (more than 2 ha)	8	6.96	
Caste wise distributions			77.5** (df=2)
General caste	6	5.22	
Other Backward caste	81	70.43	
Minority	28	24.35	
Ownership patterns			469.1** (df=2)
Barbari	85	10.18	
Black Bengal	182	21.80	
Non-descript	568	68.02	
Income classifications of goat farmers			48.4** (df=5)
₹ Up to 10000	17	14.78	
₹ 10001–20000	42	36.52	
₹ 20001–30000	28	24.35	
₹ 30001–40000	14	12.17	
₹ 40001–50000	8	6.96	
Above 50000	6	5.22	
Treatment facilities availed by goat farmers			47.2** (df=3)
Govt. veterinary hospital	16	13.91	
Private veterinarian	59	51.30	
Home remedy	12	10.43	
Private veterinarian and home remedy	28	24.35	
House type			24.8** (df=3)
Open space	12	10.43	
Hut type house	48	41.74	
Pucca house	22	19.13	
Mixed type house	33	28.70	
Feeding pattern			60.7** (df=2)
Stall feeding	6	5.22	
Grazing	74	64.35	
Both	35	30.43	
Vaccination against diseases			–
Enterotoximea (ET)	0	0	
PPR	35	30.43	
Goat Pox	0	0	
FMD	18	20.7	

*, Significant (P<0.05); **, Significant (P<0.0)1; df, degree of freedom.

Mohan *et al.* (2012). Goats were invariably kept by landless and marginal farmers and depended upon grazing the limited common property resources (Rawat *et al.* 2015).

The highest number of goat farmers belong to Other Backward caste followed by Minority and General Caste. Respondents had three types of goats breed, i.e. Barbari, Black Bengal and Non-descript (Table 1). Out of total goats kept by farmers, Nondescript type goats were more dominant in terms of share followed by Black Bengal and Barbari. It is worthwhile to mention here that West Bengal are the tracts of Black Bengal breed and this breed is also reared by the farmers of Gorakhpur region.

The income among the selected respondents was much higher on small goat keeper as compared to marginal and large farms. Among the selected respondent's majority of goat farmers (36.52%) were having an annual income between ₹ 10001–20000 followed by the 24.35% goat farmers in the range of ₹ 20001–30000, 14.78% in the range of up to ₹ 10000, 6.96% in the range of ₹ 40001–50000, 5.22% in the range of above ₹ 50000 only. The goat rearing was found to be a very assured way of income under natural grazing conditions for the rural poor who survive on part-time employment as agriculture labourer. The results are in accordance with Singh *et al*. (2018), Sahoo *et al*. (2018), Gamit *et al*. (2020) wherein goat farming has supplemented the annual income of the farmers. Rearing of cross breed goats may be encouraged so as to derive maximum economic gain by giving suitable incentives and support (Christy *et al*. 2020). Goat enterprise is an important avenue for poverty reduction of the 'poorest of poor' and that improving the production of their goats is one of the best methods of securing their livelihoods and improving food and nutrition security, as well as, in economic growth.

Occurrence of diseases causes heavy economic losses in terms of goat health and production. Veterinary and extension services much needed to goat farmers for better improvement of goat health and economic status of farmers. Goat production system in Gorakhpur district is predominantly extensive system with zero input concepts. Similarly, majority of the goats are reared either in open yard or in mixed type houses without scientific basis. A proper shelter controls the incidence of diseases, pests and enhances the productivity of the animal. Information collected through survey on goat house management revealed that most of the goat sheds in the districts were fitted with hut type, mixed type, pucca and open type house for goats rearing respectively. As it is clear that majority of goat farmers reared their goats on grazing, followed by stall and grazing pattern of feeding respectively. Addressing the nutritional constraints faced by pastoralists in extensive rangeland systems in the developing world is extremely difficult. While there is potential to improve livestock productivity in semi-arid and arid areas, probably the most feasible solutions require integrated application of what is already known, rather than new technology. This could involve dissemination of information from farmer to scientists and vice versa. The use of vaccines such as

enterotoxaemia, PPR and goat pox, FMD and deworming for internal as well external parasites need to be used as recommended for effective prevention of diseases and improved productivity. Only 51.13% of the farmers vaccinated their herd. Most of them, were using PPR and FMD through veterinary dispensaries and none of the farmers vaccinated the animals for Enterotoxaemia, goat pox and HS. In case of deworming, only 37.39% of the farmers were deworming their herd. The vaccination and deworming turnout were low due to the lack of awareness among the farmers about the importance of vaccination and deworming. Similar findings were reported by (Sivachandiran *et al.* 2020) who proposed that the majority of the goat rears were not vaccinated and dewormed their herd due to lack of awareness about the importance of vaccination and deworming. The major constraints faced by goat farmers with respect to health care were lack of veterinary services, ignorance about the importance of vaccination and deworming (Mamta kumawat *et al.* 2017). The strategic control and eradication of economically important diseases will result in enhancing goat production (Dhara *et al.* 2019).

SUMMARY

Goat rearing is an important source of livelihood particularly for landless labourers and marginal farmers across the country. Evidence has shown that majority of goat farmers belonged to landless and marginal categories. Majority of goat farmers' annual income was between ₹ 10,001 to 20,000 and only 5% of farmers had an annual income of more than ₹ 50,000. Study also reveals that about 68% goats kept by farmers were from non-descript breed followed by Black Bengal (27%). Beside this nearly 14% of goat farmers were getting veterinary aid from government veterinary hospital while 86% of goat farmers were dependent on either private veterinarian or home remedies. Moreover, about 42% farmers were having hut type of houses for goat rearing. In the light of the results obtained it can be concluded that the production potential of goats could be enhanced with the introduction of superior technologies as well as improved practices which would help the farmers to contribute meaningfully to meet the needs of the family members and also improve the socio-economic status of goat farmers.

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