

# Constraints faced by the Tribal Goat Farmers of Kandhamal District of Odisha, India

## ABSTRACT

Goat rearing is one of the important supplementary activities in tribal areas of our country. It provides emergency income security to the vulnerable tribal farmers besides social status in the community. However, this occupation is associated with many problems at present and the tribal goat farmers are mostly affected. To find out the problems encountered by tribal farmers in goat rearing, the present study was carried out to study the constraints faced by the tribal farmers in goat rearing which affect their livelihood. For this study, Kandhamal District of Odisha was selected due to high concentration of goat population. Sixteen villages from four blocks of the district were selected randomly and from each village seven goat farmers were selected constituting the sample size of 112. Ex-post facto research design was used for this study and data were collected with the help of pre-tested interview schedule. The constraints were ranked by using Garrett's ranking technique. The study revealed that insufficient subsidy and support from government, unavailability of good quality kids to start a farm, lack of exposure of the tribal farmers to successful goat farms in the nearby area, goat farming as a low caste activity and inability to sell the goats at door step as major constraints perceived by the tribal goat farmers in rearing goats for their livelihood. The State Animal Husbandry Department may take up the awareness programme to address these issues related to the financial, operational, extension and marketing constraints faced by the tribal goat farmers to support their livelihood as they are most vulnerable section of the society.

*Keywords: Constraints, tribal farmers, financial, operational, marketing*

## 1. INTRODUCTION

Goats are one of the economically important livestock in world and goat farming is an important sub-sector of the livestock industry. It has been crucial in improving food and nutritional security, as well as poverty alleviation. Many farmers, especially rural and tribal farmers rear goats due to their low

initial investment, minimal input requirements, higher prolificity, early sexual maturity, and ease in marketing. The economic contribution of small ruminants like goat to poor farm households and livelihood systems is high. They play an important role in the livelihood of resource poor farmers. They provide their owners with a vast range of products and services such as meat, milk, skin, hair, horns, bones, manure and urine for cash. Goat farming constitutes the means of livelihood of over 25 per cent of Odisha's rural population, and are reared predominantly by the landless, marginal and tribal farmers as means of livelihood. Odisha state is famous for the native germplasm of goat like Ganjam, Black Bengal, Raighar, Badavihana which are in heavy demand for meat in the eastern part of the country. These breeds are unique in nature and adapt to the local situation very well. Studies by various authors indicate that the goat rearing enterprise made significant contribution to the economic welfare of poor people and creation of employment opportunities to rural people [1],[2],[3][4]. Keeping these facts in mind, the present investigation was carried out to know, besides economic benefit, the constraints faced by the tribal goat farmers of the district.

## **2. MATERIALS AND METHODS**

The present study was undertaken in the purposefully selected Kandhamal district of Odisha having large goat population. Out of 12 blocks of the district, four blocks - Phulbani, Khajuripada, K.Nuagaon and Baliguda blocks were selected randomly. Thereafter, from each block, two Gram Panchayats (GP) were selected randomly and from each GP, two villages were selected randomly for the study. For each village, a list of the goat farmers was prepared who were having minimum 10 numbers of goats and reared goats for more than 5 years, with the help of local people, para-veterinarian and veterinary doctor. Then, from the list of each village, seven goat farmers were selected randomly. Thus, from 16 villages, 112 farmers were selected which constituted sample size of the study. Ex-post facto research approach was used to study the constraints faced by the goat farmers.

Five major constraint categories, such as financial constraints, operational constraints, extension support constraints, socio-cultural constraints, and marketing constraints, were identified through discussions with Veterinary Department officials, beneficiaries, and Veterinary College experts to study the constraints faced by goat farmers. Under each constraint category, five statements were selected after discussing with the above officials. The statements about constraints are put in a random sequence in the questionnaire, and respondents were asked to rate them from

most difficult to least difficult one. The statement that was reported as the most difficult by the respondents was given rank 1, and the statement that was indicated as the least difficult was given rank 5. Garrett's ranking approach was used to finalize the rank of the constraints. Respondents were asked to provide a rank to all the statements and the result of that ranking was transformed into a score value using the following formula:

$$\text{Percent position} = 100 (R_{ij} - 0.5) / N_j$$

Where,  $R_{ij}$  = Rank given for the  $i^{\text{th}}$  variable by  $j^{\text{th}}$  respondents

$N_j$  = Number of variables ranked by  $j^{\text{th}}$  respondents

The % position estimated was transformed into scores using Garrett's table. The scores of each individual were then summed for each constraint, and the total value of scores and mean values of scores were determined. The statements with the highest mean value are deemed the most critical constraint and are ranked first. The statement with the lowest mean value was ranked at the last.

### **3. RESULTS AND DISCUSSION**

#### **Constraints faced by tribal goat farmers in goat farming**

##### **3.1. Financial Constraints faced by tribal goat farmers**

The analysis presented in the table 1 reveals that the insufficient subsidy from government secured ranked first followed by no incentives from government for goat rearing ranked second by the goat farmers. Unavailability of credit from banks and other financial institutions for supporting the scheme was ranked third and initial heavy investment for construction of shed and purchase of goats was ranked fourth by the beneficiaries. My poverty restricts me to participate proactively in the programme was ranked fifth by the goat farmers. The tribal farmers are mostly from backward and disadvantaged sections of the society, they should be supported by providing incentives for rearing goats to support their livelihood. The authors [5] in their study also stressed the importance of government support to tribal goat farmers. Similar types of findings are also reported by the authors [4]. Tribal goat farmers should be supported to construct the goat shed and purchase of quality animals to start the goat farming.

**Table1. Rank of Financial constraints faced by beneficiaries**

Sl. No.	Types of constraints	Mean score	Rank
1	Initial heavy investment for construction of shed and purchase of goats	47.72	IV
2	Insufficient subsidy from government	56.20	I
3	No incentives from government for goat rearing	51.38	II
4	Unavailability of credit from banks and other financial institutions for supporting the scheme	49.95	III
5	My poverty restricts me to participate proactively in the programme	44.73	V

### 3.2. Operational Constraints faced by tribal goat farmers

Table 2 reveals that unavailability of good quality kids secured first rank followed by difficulty in construction of goat shed as second. Unavailability of feed supplements in nearby area was ranked third and low level of knowledge on goat management was ranked fourth. Irregular health advisory services by the department were ranked fifth, the authors [6] in their study found that the goat farmers face problems in getting good quality kid to start the goat farming. They also found that the unavailability of feed supplements for goat and poor health service provisions of the line department are important constrains for the goat farmers. These findings are in line with the findings of authors [7],[4].

**Table 2. Rank of Operational constraints faced by beneficiaries**

SI No	Types of constraints	Mean score	Rank
1	Difficulty in construction of goat shed	52.45	II
2	Unavailability of good quality kids for starting the farm	55.66	I

3	Unavailability of feed supplements in nearby area	51.33	III
4	Low level of knowledge on goat management	46.60	IV
5	Irregular health advisory services by the department	43.92	V

### 3.3 Extension Support Constraint faced by tribal farmers

The analysis of extension support constraints faced by the beneficiaries presented in table 3 reveals that the lack of exposure to successful goat farms was ranked first followed by unavailability of extension literature materials on goat farming as second by the goat farmers. Lack of training to goat farmers was ranked third and no regular visit of officials of veterinary department was ranked fourth by the respondents. Lack of idea about benefit of goat farming was ranked fifth. Non provision of training, exposure visit and literature are indicated as constraints by the respondents and similar findings were reported by the authors [8], [9] in their studies. It is suggested to include training, exposure visit and distribution of literature materials to encourage the goat farming in the rural areas as a livelihood option

**Table 3. Rank of Extension Support Constraints faced by beneficiaries**

Sl. No.	Types of constraints	Mean score	Rank
1	Lack of training to goat farmers	50.17	III
2	Lack of exposure to successful goat farms	53.66	I
3	Unavailability of extension literature materials on goat farming	53.16	II
4	Lack of idea about benefit of goat farming	46.25	V
5	No regular visit to officials of veterinary department	47.05	IV

#### d) Socio-Cultural Constraints faced by tribal goat farmers

The analysis of socio-cultural constraints faced by the respondents presented in table 4 reveals that goat farming is considered as the occupation of low caste was ranked first followed by beliefs that goat keeping in house will restrict the prosperity in the family as second. The farmers maintain their goats in the goat shed only during the night. But rest of the time either the goats are out for grazing or tied in the farmer's backyard which is not fenced in most of the cases. This creates a major problem for the neighbours. The authors [10], in their study reported that goats are often the cause of conflict when they graze in the crop fields of other farmers. The professional butchers are not available in every village. So, the farmers mostly sell the goats to middlemen who in turn sell the goats to professional butchers available in urban areas. This problem was highlighted by the farmers and was ranked third.

**Table 4. Rank of Socio-Cultural Constraints faced by beneficiaries**

Sl. No.	Types of constraints	Mean score	Rank
1	Goat farming is considered as the occupation of lowcaste	50.53	I
2	There are certain beliefs that goat keeping in house will restrict the prosperity in the family	52.05	II
3	Mutton is not preferred by large sections of the people because of health awareness	50.80	III
4	Unavailability of professionals' butchers for slaughtering of goats in rural area.	50.17	IV
5	Non-co-operation of neighbours for goat farming	46.42	V

#### **e) Marketing Constraint**

The analysis of marketing constraints faced by the beneficiaries presented in the table 5 reveals that that inability to sell the goats at door step was ranked first followed by high bargaining of goat price by middleman was ranked second. High transportation cost to distant market place was ranked third, unregulated marketing was ranked fourth and no community managed goat business centres was ranked fifth by the respondents.

As the producers do not have access to open market, they mostly sell their goats to middlemen at a price fixed by the middlemen. So, in majority of cases, they sell their goats below the market price thus leading to reduced profit. Similar findings were reported by the authors [11], [9] who reported that more than 90% goats were sold by goat keepers in their villages to butchers/middlemen. The findings of the study of the authors [2] mentioned that the main constraints to goat farming are low prices and lack of market for the animals. In order to encourage efficient marketing systems of goats and their products, there is need for making investment to create physical infrastructure in the markets.

**Table 5. Rank of Marketing Constraints faced by beneficiaries**

Sl. No.	Types of constraints	Mean score	Rank
1	Inability to sell the goats at door step	56.29	I
2	High bargaining of goat price by middleman	55.53	II
3	High transportation cost to distant market place	49.59	III
4	Unregulated marketing	47.45	IV
5	No community managed goat business centre	41.11	V

#### **f) Overall Constraint ranking by respondents**

The analysis of overall constraints faced by the beneficiaries presented in the table 6 reveals that Operational constraints was ranked first by the respondents followed by financial constraints as second. The Extension support constraint was ranked third, marketing constraint was ranked fourth and socio-cultural constraint faced by the respondents was ranked fifth by the respondents. The authors [12], [4] also identified that inadequacy of basic facilities like marketing, credit and veterinary services for goat keepers are major constraints of goat farming.

**Table 6. Rank of Overall Constraints faced by beneficiaries**

Sl. No.	Types of constraints	Mean score	Rank
1	Financial constraints	54.01	II
2	Operational constraints	55.04	I
3	Extension support constraint	49.64	III
4	Socio cultural constraints	44.24	V
5	Marketing constraints	47.18	IV

#### 4. CONCLUSION

The present study reveals different constraints like Insufficient subsidy and support from government, unavailability of good quality kids to start a farm, lack of exposure of the tribal farmers to successful goat farms in the nearby area, low caste activity and Inability to sell the goats at door step as major constraints perceived by the tribal goat farmers of the study area in rearing goats for their livelihood. Hence, there is a need to support the traditional goat rearing activity of tribal farmers by providing them financial, operational, extension and marketing support by the State Animal Husbandry Department to strengthen their livelihood system as they are most vulnerable section of the society.

#### REFERENCES

1. Ahmad S, Fayaz M, Ali. G. An Economic Analysis of Goat Rearing in Kohistan District, Khyber Pakhtunkhwa, Journal of Entomology and Zoology studies. 2015; 3(3):484-488.
2. Manzi M, Mutabazi J, Hirwa CD, Kugonza DR. Socio economic Assessment of Indigenous Goat Production System in Rural Areas of Bugesera District in Rwanda, Livestock Research for Rural Development. 2013; 25(11):111-116.
3. Soni RL, Berathi R, Rathore RS. Socio-economic impact of the Improved Goat Rearing Practices on Tribals, Rajasthan Journal of Extension Education. 2011;19(1): 62-65.
4. Mohanty M, Das B.C. Economic Impact of Goat Farming on Livelihood of Goat Farmers of Nabarangpur District of Odisha. Unpublished M. V. Sc thesis submitted to OUAT, Odisha. 2018.
5. Panda R, Das B.C. A Comprehensive study on Goat Finance in Mayurbanjh District of

- District of Odisha. Unpublished M.V.Sc thesis submitted to OUAT, Odisha. 2017.
6. Dixit AK, Singh MK, Rai B, Rustam S, Singh SK. Management practices of Goats in Bundelkhand Region, *The Indian Journal of Small Ruminants*. 2014;20(2): 99-105.
  7. NaiduBP, Rao JS, Prasad RMV, Subrahmanyeswari B, Anitha A. Constraints in Goat Rearing faced by Farmers and Perception of Veterinarians of Andhrapradesh: A Field Study, *The Indian Journal of Small Ruminants*,2016; 22(1): 137-138
  8. Kosgey IS, Rowlands GJ, Arendonk JAM, Baker RL. Small ruminant production in small holder and pastoral farming systems in Kenya, *Small Ruminant Research*. 2008; 77(1): 11-24.
  9. Sarangi M, Swain P. Impact assessment of National Mission for Protein Supplement (NMPS) for goat development Programme in Coastal District of Odisha. Unpublished M.V.Sc thesis submitted to OUAT, Odisha. 2017.
  10. Chander, M, Rathod,P.K. Investment in livestock extension activities by State Departments of Animal Husbandry (SDAH) in India: An appraisal. *Indian Journal of Animal Sciences*. 2012; 83(2):119-124.
  11. Singh MK,Dixit A K, Roy A K. Goat rearing: a pathway for sustainable livelihood security in Bundelkhand region, *Agricultural Economics Research Review*. 2013; 26(1):79-88.
  12. Rai B, Singh MK, Dixit AK, Rai RB. Livelihood Security Through Improved Goat Rearing Practices Under Field Conditions, *The Indian Journal of Small Ruminants*.2013; 19(2):198-201.