



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

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## Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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## 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. The present study was undertaken to find out the problems encountered by the tribal farmers in goat rearing which affect their livelihood. Kandhamal district of Odisha was purposively selected for the study as this district is highly concentrated with local goats. From randomly selected four blocks of the district, four villages were also selected randomly

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from each block. Thereafter, seven goat farmers from each village were selected randomly which constitute the sample size of 112 goat farmers for the study. The data for the study was collected personally by the researcher with the help of pre-tested interview schedule. The study employed ex-post facto research design to capture field data. 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, tribal farmers lack of exposure to successful goat farms in the nearby area, goat farming as a low caste activity and facing difficulty 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; animal husbandry; livelihood.*

## 1. INTRODUCTION

Goats are known as “poor men’s cow” because they are economically and culturally important livestock of the poor people. Goat rearing not only provides financial and nutritional security to the poor people but also gives employment opportunities to the rural poor. The rural and tribal farmers prefer to rear the goats due to their quick return, low initial investment, ease in handling by kids and women and high market demand of meat. The small ruminants act as a reservoir of readymade cash for the resource poor farmers. Goat husbandry plays significant role in the financial security of resource poor farmers by providing meat, milk and skin for cash. Around 25 per cent of Odisha’s rural population constituting landless, marginal and tribal farmers rear goats to support their livelihood. The native breed of Odisha goats like Blac Bengal, Ganjam, Raighar, Badavihana which are in heavy demand for meat in the eastern part of the country. These breeds of local goats are unique in nature and adapt to the local harsh situation very well. The goat farming not only provides economic benefit but also employment opportunities to the tribal farmers. However, studies on goat husbandry conducted by various authors indicate that the poor rural farmers face different types of problems in goat farming [1-4]. Taking in to the note of all these facts, the present study was carried out to find out the constraints faced by the tribal goat farmers of the district.

## 2. MATERIALS AND METHODS

Kandhamal district of Odisha was purposively selected for the study as this district is highly concentrated with local goats. From randomly selected four blocks- Khajuripada, K.Nuagaon

and Baliguda, of the district, four villages were also selected randomly from each block. Thereafter, seven goat farmers from each village were selected randomly which constitute the sample size of 112 goat farmers for the study. The goat farmers were selected for the study who were having experience of rearing goats for five years and have minimum of 10 goats at the time of selection of the respondents. The selection of the respondents for the study was done with the help of local goat farmers, para-veterinary workers of the blocks and field veterinary doctors. The data for the study was collected personally by the researcher with the help of pre-tested interview schedule. The study employed ex-post facto research design to capture field data.

Five major constraint categories were identified, such as financial constraints, operational constraints, extension support constraints, socio-cultural constraints, and marketing constraints, through discussions with Veterinary Department officials, beneficiaries, and Veterinary College experts to study the constraints encountered by goat farmers during goat rearing. 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 from most difficult constraint to least difficult constraint. 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. The ranking of the constraints was done with the Garrett's ranking method. 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:

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

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

$N_j$  = 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

#### 3.1 Constraints Faced by Tribal Goat Farmers in Goat Farming

##### 3.1.1 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. Farmers ranked unavailability of credit from banks and other financial institutions as third most difficult constraint and fourth as initial heavy investment for construction of shed. The goat farmers indicated that my poverty restricts me to participate proactively in the programme which was ranked by them as fifth most difficult constraints. 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]. The tribal goat farmers should be supported by the Government agencies to construct the goat shed and purchase of quality animals to start the goat farming.

#### 3.2 Operational Constraints Faced by Tribal Goat Farmers

Table 2 reveals that unavailability of 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 by the goat farmers and fourth major constraint as low level of knowledge on goat management. The farmers ranked fifth major constraint is irregular health advisory services by the department. The authors [6] in their studies 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 constraints for the goat farmers. These findings are in line with the findings of authors [7,4].

#### 3.3 Extension Support Constraint Faced by Tribal Farmers

In Table 3, the analysis of extension support constraints encountered by the beneficiaries 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.

**Table1. 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	Lack of incentives from government for goat rearing	51.38	II
4	Unavailability of credit from banks and other financial institutions for goat farming	49.95	III
5	Restriction of my poverty to participate proactively in the programme	44.73	V

(Source: Field data)

**Table 2. 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

(Source: Field data)

**Table 3. Extension support constraints faced by beneficiaries**

SI. No.	Types of constraints	Mean score	Rank
1	Lack of training to goat farmers	50.17	III
2	Lack of exposure to successful goat farming	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	Irregular visit to officials of Veterinary Department	47.05	IV

(Source: Field data)

The respondents ranked third to the lack of training to goat farmers and fourth to no regular visit of officials of veterinary department to the village. Lack of idea about benefit of goat farming was ranked fifth. The various authors [8,9] in their studies on small ruminants have reported that the non-provision of training, lack of exposure visits and low extension literature were indicated by the respondents as constraints for them. The State Livestock Departments, NGOS and organizations involved in strengthening of the livelihood of the goat farmers must include training, exposure visit and distribution of literature materials in their programmes.

### 3.4 Socio-Cultural Constraints Faced by Tribal Goat Farmers

The goat farming is an occupation of low caste was ranked first by the respondents and second was the beliefs that goat farming affects the prosperity in the family. In village, the farmers

leave their animals at daytime to graze in the nearby fields and in the nighttime, they tie their animals. Sometimes, the goats which are left in the daytime for grazing enter the neighbour's field which creates conflict in the community [10]. Most of the villagers sell their animals at the village level to middlemen as they do not have butchering option in the village. They incur loss due to sell of their animals to middlemen. The problem of unavailability of butcher in the rural areas was ranked as fourth most important constraints for them.

### 3.5 Marketing Constraint

Inability to sell the goats at the door step in right price was ranked first by the respondents and second most important constraint was high bargaining price by the middlemen. Further, the respondents ranked high transportation cost to distant market place as third, unregulated marketing as fourth and community managed goat business centre as fifth.

**Table 4. Socio-cultural constraints faced by beneficiaries**

SI. No.	Types of constraints	Mean score	Rank
1	Low caste occupation	50.53	I
2	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 professional butchers for slaughtering of goats in rural area.	50.17	IV
5	Non-cooperation of neighbours for goat farming	46.42	V

(Source: Field data)

**Table 5. 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	Lack of community managed goat business centre	41.11	V

(Source: Field data)

**Table 6. 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

(Source: Field data)

As the rural poor farmers do not have access to open market, they sell their goats to the middlemen at a price fixed by them and in most of the cases farmers sell their animals much below the prevailing market price leading to getting less profit.

Similar findings were reported by the authors [11,9] who reported that goat farmers sale more than 90 % of their animals in the village 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. The physical infrastructure of the local market may be strengthened to provide poor farmers of the village to sell their animals and products at right prices.

### 3.6 Overall Constraint Ranking by Respondents

The analysis presented in Table 6 on overall constraint ranking reveals that farmers had ranked Operational constraints as first and second important constraint was Financial constraints. The respondents ranked Extension support constraint as third, marketing constraint as ranked fourth and socio-cultural constraint as fifth most important constraint. The authors [12,4] also in their studies identified some major constraints in goat farming like inadequacy marketing facilities, lack of credit facilities for goat farming and irregular veterinary services.

## 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.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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