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## **Livelihood Security of Tribal Farmers in Adilabad District through Goat Farming**

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### **Authors' contributions**

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

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### **ABSTRACT**

To create subsidiary income and employment to small and marginal tribal farmers of Adilabad district, Krishi Vigyan Kendra, Adilabad introduced Goat farming as a livelihood opportunity to the tribal farmers. Under the Goat farming 40 tribal farmers were selected from 8 adopted villages of KVK, Adilabad by Participatory Rural Appraisal (PRA) techniques. Every farmer was given 2 goats with a worth of Rs. 8000 and few supplementary medicines and vaccines were also supplied. The net value created under goat farming in 4 years from 2013 to 2017 is Rs. 20, 75,000 and the number of goats is 415. It is also found suitable from the point of employment generation per unit utilization of resources. Further, it also created regular subsidiary income, goat milk for family consumption and farm yard manure for soil fertility.

**Keywords:** Goat farming; sustainable income; livelihood.

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## 1. INTRODUCTION

Adilabad is one of the backward districts in the Telangana state. The tribal population of the district as per 2001 census is 4, 16, 511 which work out to 16.74% of the total population of the district. Out of 4.16 Lakhs tribal population of the district 2.07 Lakhs inhabit the scheduled areas and covering 44 mandals of 52 mandals in the district. It has some of the unique characters viz. high rainfall (average of 1159.4 mm), uneven topography, less irrigation facilities, uneven rainfall distribution, more forest area (43%), low literacy, unemployment among tribal youth and varied socio-economic situations.

Goat is usually referred to as the cow of the poor. Goats are among the main meat-producing animals in India, whose meat (*chevon*) is one of the choicest meats and has huge domestic demand [1]. Besides meat, goats provide other products like milk, skin, fibre and manure to the farmers. Goat meat has no religious inhibitions and is consumed by all the religions and races in the country. Goat milk is source of cheap protein for the poor people and has medicinal properties. Goats are also major sources of leather and leather products in the country. Goats are simple creature and live in the domestic environment. Rearing of goat is easy and can be done by landless labourers, women and children. Goats can be reared has a viable farming activity and may form source of livelihood and extra income for poor people in the villages [2]. Goat farming thus provides a good source of living and has great potential in the most part of the country. Goat has the ability to survive on little vegetation and mountainous regions with little grass. Goat farming suits Adilabad district climate and economic situation and provide food and nutritional security to the millions of marginal, small farmers and agricultural labourers. Thus Goats act as a ready to use economic asset at the time of crisis among rural farmers [3]. Intensification of goat production systems like other small animal production systems is regarded as having the potential to contribute to improve the livelihood opportunities of the tribal farmers and weaker sections of the country [4, 5]. Thus, boosting of small animal production has become a major policy option, both to meet the increasing demand for livestock products like meat, milk, wool etc. and at the same time, to contribute to

improve the income of rural households. In view of the above advantages, with an objective to make farming as a sustainable entity among tribal farmers, Krishi Vigyan Kendra, Adilabad under Rashtriya Krishi Vikas Yojana (RKVY) and Tribal Sub Plan (TSP), schemes of Government of India, supplied goats and few medicines for goat farming to enhance subsidiary income of tribes in the district. This paper discusses about income generation through intensification of goat farming by selected tribal farmers in the district. It also explores the impact of intervention objectives, namely an increase in kidding percentage and on amount of subsidiary income generated through goat farming.

## 2. MATERIALS AND METHODS

A personal interview survey was conducted on socio-economic levels and livelihood opportunities for tribal farmers in village through Participatory Rural Appraisal (PRA) techniques in adopted villages during 2013 to 2017 given in table 1. Diversified information was collected through structured personnel interview schedule was prepared in consultation with the local veterinary doctors, village key informants and experienced caste based goat farmers. Pre-testing was done to see the reliability and validity of the interview schedule. The important reasons for keeping goats as livelihood farming system for tribes because of their habitat in mountainous regions with little grass and open land, unemployed family labour, regular subsidiary income, community-based traditional purposes and milk and meat consumption. Forty beneficiaries were identified, a thorough PRA and each beneficiary given 2 goats (1 male and 1 female), a total of 80 goats were supplied under RKVY and TSP with a worth of Rs. 8000 (Rs.4000/Goat). Training on gotary farming and demonstration on vaccination and rearing techniques were briefed to the tribal farmers. KVK, Adilabad also supplied vaccines and medicines with a worth of Rs.1000 per beneficiary.

To sustain the goat farm and creation of subsidiary income, the observations like number of multiplications goat farms (Male and Female kids), milk yields, manure quantity, number of male goats sold in the market were recorded [6].

**Table 1. Details of adopted villages selected for study**

S.No	Year	Village	Mandal	No of beneficiaries
1	2013	Pataguda	Indravelly	5
2	2013	Gourapur	Indravelly	5
3	2013	Ambugoan	Thamsi	5
4	2013	Girigoam	Thamsi	5
5	2013	Sirikonda		5
6	2016	Shaikguda	Thalamadugu	5
7		Shareguda	Thalamadugu	5
8	2017	Markaguda	Gudihathnoor	5

### 3. RESULTS AND DISCUSSION

Goat farming created substantial wealth to the tribes and also ensured regular cash flow in every season in the form of male goats which were sold in the market with a cost of Rs.5000/per goat. A beneficiary farmer named Shri. Sedam Bhuma S/o Bheem Rao of Village Pataguda of Indravelly mandal has reared 2 goats into 48 (Table 2) with a worth of Rs. 2, 40,000 (48 @ 5000) from 2013 to 2017. It helped him in regular milk for his family and the manure generated was used in his fields for crop production. The cost benefit ratio is 24.0:1.

The date shown in Table 3 revealed that beneficiaries in the year 2013 had more of number goats ranging from 27 to 132 per village. Where as in the year 2016 beneficiaries from Shaikguda and Shareguda village had 32 and 36 goats respectively. Altogether forty beneficiaries from 2013 to 2017 created a worth of 20, 75,000 with a 415 number of goats from initial 80 Goats with a worth of Rs. 3, 50,000. The average cost benefits ratio is 1:5.9. The similar kinds of results were reported [7] in goat production within subsistence farming systems in South Africa.

Goat farming reduced the migration of rural youth to urban areas. Also adopting Goat farming, every beneficiary farmer used efficiently family

labour and also ensured regular milk to the family consumption, which is highly nutritious. The manure generated was used in the fields for organic cultivation. Even few beneficiaries sold the manure to the other farmers and made income out of it. A study conducted [8] on aspects of goat farming in the communal farming systems of the central Eastern Cape, South Africa also yielded similar results in-terms of subsidiary income and goat milk to the households of goat farming farmers.

The results which are revealed in this goat farming are in line with the ambitious flag ship scheme called Sheep distribution by government of Telangana, India. This scheme leads to a quantum of jump in rural economy. It paved way for the up liftment of a section of community in the state. Provision of financial subsidy to this skilled community for rearing sheep on a large scale will facilitate not only their economic development but also facilitate production of adequate quality of meat in the state. It is also aimed to make the Telangana is a hub for meat export in near future like hub of IT and Pharma. The traditional shepherd families will be supported with the supply of (20+1) sheep on 75% subsidy with a total project outlay of Rs. 5,000 crores.

**Table 2. Economics of beneficiary Gotary farming farmer**

Name of the farmer		Sedam bhuma S/o bheem rao		
Village/ Mandal		Pataguda/Indravelly /Adilabad		
Live stock distributed to beneficiary under RKVY		Goats (2 No)		
Year	2013	2016	2017	
No. of Goats per Year	2	28	48	
Value	2 @ 4000 =8,000	28 @ 5000 =1,40,000	48 @ 5000 =2,40,000	

**Table 3. Economics of beneficiaries with goat farming in different villages**

S. no	Year	Village	No of beneficiaries	Unit size & value given (Rs.) by KVK	Present value (Worth in Rs.)
1	2013	Pataguda	5	2X 5 =10 @ 4000= 40000	132 @5000 = 660000
2	2013	Gourapur	5	2X 5 =10 @ 4000= 40000	100 @5000 =500000
3	2013	Ambugoan	5	2X 5 =10 @ 4000= 40000	30 @5000 = 150000
4	2013	Girigoam	5	2X 5 =10 @ 4000= 40000	58 @5000= 290000
5	2013	Sirikonda	5	2X 5 =10 @ 4000= 40000	27 @5000 = 135000
6	2016	Shaikguda	5	2 X5 @5000= 50000	32 @5000 =
7		Shareguda	5	2 X5 @5000= 50000	36@5000
8	2017	Markaguda	5	2 X5 @5000= 50000	---
Total :			40	80 Goats with a worth given Rs. 3,50,000	Generated 415 Goats with a worth of Rs. 20,75,000

#### 4. CONCLUSION

Goat farming is one of the best unique livelihood opportunities for the tribal farmers in the district. It can generate subsidiary income, utilizes family labour and provides year round nutritious milk to the family. Further, an integrated farming system inclusive of goat farming offer unique opportunities for maintaining and extending biodiversity. The emphasis should be on small livestock such as chicken, sheep and goat in accordance with constant income. This would enable the farmers to enhance their productivity and reduce the cost of their production.

#### RECOMMENDATIONS

It is recommended that, goat farming in tribal areas will create livelihood opportunities for the tribal farmers. As the government of Telangana, in India planning to setup Modern slaughterhouses in the state to produce and export quality meat to the world. So there is a much demand for goat farming in the state. In research aspects, further studies need to be conducted on breeding and management practices.

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#### COMPETING INTERESTS

Authors have declared that no competing interests exist

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