

Original Research Article

Sheep rearing as an environment conservation and sustainable development practice: a case study of Maddur Mandal, Mahbubnagar-Telangana

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ABSTRACT

The present Society is deeply worried about the use of animal products which have been produced and processed in a sustainable way. This pattern influences decision making for consumer purchases, especially in developing nations. At the other side, the demand to raise the amount and productivity of meat output in the coming years would be far higher to cope with the increasing demands. The Present study deals with socio economic and environmental aspects of shepherds in Maddur mandal of Mahbubnagar district. The present research is based on field study done in 10 villages of Maddur mandal of which majority of them are shepherd who are totally dependent on sheep rearing in traditional and inherent over years. Most of these are poor and depend heavily on sheep rearing activities. The output of study will be helpful in focusing new and better initiatives for sheep rearing.

KEYWORDS

Sheep rearing | Sustainable | Productivity | Meat | Traditional

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Introduction

By 2050, the agriculture industry has the burden of growing demands to feed the planet by more than 60 per cent (Food and Agriculture Organization of the United Nations (FAO), (2012). Under this scenario meat consumption is projected to rise significantly as a strategic source of protein under human diet. The estimated market reveals that poultry and pig meats would take the lead, respectively, led by bovine and sheep meats.

The participant finding in the sample village indicates that most shepherds have a positive association between herd size and land ownership and the sheep rearing cycle includes growing herd size in control of their land.

In several of these villages the shepherds pursue sheep rearing as a significant profession for their livelihood and job producing revenue. Nevertheless, they gain smaller and lower wages as their sheep's number continues to decline. It is intended not to be commercialized. Most of these are organized into Yadava Sanghams with rotating credit system and regional rural banks and cooperative banks.

Sheep rearing is a significant allied farming operation. It is the most effective survival strategy in maddur mandal particularly throughout an area vulnerable to drought. Many villagers on a lower site face a severe water crisis with higher pastoral capital. Many regions are warm, only flooded with heat. One or two crops are cultivated in the field

The prominent Kuruva and Golla caste groups either are involved in agriculture or work as labour in addition to undertaking sheep rearing and grazing as a principle occupation.

The pastoral nomads across Southern Telangana are working over the years in manuring woollen blanket making and intense grazing. However, during drought, there is a problem to sheep as they are to move to different places of water points. Further they are subjected to diseases. The government veterinary department freely supplies

vaccination. The supplement nutrients such as B complex syrup, calcium are available in the nearby areas.

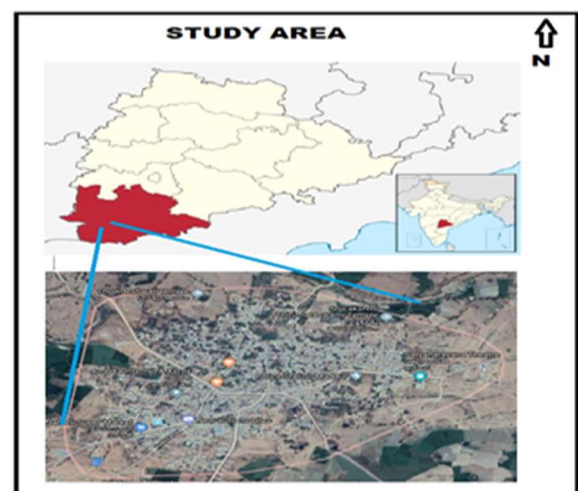
The main objective of our study is to determine sheep rearing strategy of the shepherd groups for possession of properties and to determine the effect on herd rearing behaviour on the climate.

Methodology

The research is an ethnographic study investigating the issue. Ethnographic study is conducted to have a better understanding of the existing problem, but will not provide conclusive results. A sample of 229 shepherd households has been taken and information is collected through canvassed a structured schedules and group discussions. A total of 229 households belonging to Kuruva caste groups have been studied. Parallely we also relied on secondary data from various books, journals, and authentic websites. For analysing our data, we used Microsoft Excel 2010 and Statistical Package for the Social Sciences (SPSS).

Study Area

The present study is undertaken in Pallerla, kajipuram, mannapur, veeraram, kollapur, peddapur, nandigam, kommur, Allipur and Dorepalle villages falling under the purview of Maddur Mandals of Mahbubnagar district of Telangana. Maddur is located at 16.8667°N 77.6167°E. It has an average elevation of 503 metres (1653 ft).



Analysis

In the past few decades, much focus has been put on the adverse environmental impact of livestock. Nonetheless, these adverse effects are caused mainly by the manner in which livestock were handled recently, often on a short-term benefit basis with little regard for sustainability.

Data describes that as the size of the sheep herd grows, so does their possession of the farm. This is the reason that as benefits accrues to the

shepherds as they purchase more land and assets (Table 1).

The data further reveal that in 5-50 herd size, 54 households, exists consisting 23.58 percentage of households and there are 615 sheep which consists of 4.73 % of the total number of households studied are 229. The sheep less households are 17.46% of the total flock size. The most herd size is owned by the 151-250 herd size 27.47% (table 1).

Sheep size	Number of Households	% of Households	Number of Sheep	% of the sheep
5-50	54	23.58	615	4.73
51-75	76	33.18	3210	24.69
76-150	32	13.97	2870	22.05
151-250	21	9.17	3575	27.47
251-500	5	2.18	1920	14.75
501-1000	1	0.43	820	6.3
Sheep less	40	17.46	--	--
Total	229	100	13010	100

Table 1: Number of Households and Sheep size

Category of sheep-size	No. of Households		Total land with sheep	
	With land	Without land	Wet	Dry
5-50	38	16	76	114
51-75	54	22	72	162
76-150	29	3	58	87
151-250	17	4	31	51
251-500	4	1	16	24
501-1000	1	-	8	5
Sheep less	36	4	54	58
Total	179	50	315	501

Table 2: Households Land Holding

Data indicates that the shepherd owns more irrigated and dry lands while their sheep herds are growing in size. The above table shows that the shepherd possesses more irrigated wet and dry lands in adequate numbers. Most of the household’s possess land and also possess sheep. However most of the land particularly wet land in owned by small as well as large (households) sheep categories (Table 2).

For example, in the herd size category of 51-75 size possess 162 acres of dry and 62 acres of wet

land. Similarly, in Table 2, the flock size group of 500-749, 1 household possesses 5 acres of dry land and 8 acres of wet land which indicates that a few individuals own more sheep and more land. Table 2 also shows that 78.16 % of Households are with land and with sheep. 15.72% are with land but without sheep. 21.83 % of the households are without land but sheep possess. However, 1.74% are without any land or sheep (Table 3).

No. of Households	Households without land and sheep	Households with land with sheep	Total
29	4 (1.74%)	225 (98.25%)	229 (100%)

Table 3: Asset possession of the Households, shows that out of the 229 households studied, 1.74% are without land and sheep. However, (225) 98.25% are with land and with sheep.



Fig. 2: (field Survey)



Fig. 3: Sheep’s with their owners

Findings of participant observation of traditional sheep herders

The study across several villages in the study area reveals that the acute water shortages exist during drought period. It occurs regularly with the water storage over flooding during the rainy season. The issue of water flow during the rainy season which causes less value to the price and storage of manure as the whole net chain-mesh surrounding and less vegetation area leads and the liquidation of manure from sheep droppings and sheep's foot steps to manure into wet lands leading to ecological problems of sheep rearing and soil fertility.

However, if there is protective grasses, grasslands, forest cover and improved water shortages escape technology then During drought there is a possibility to avoid water logging. This necessitates the location of sheep grazers will be helped to take over from their profession as the government helps the shepherds with a large number of flocks in the form of assistance (for example: veterinary assistance). Delivering link-

chain mesh nets to shield the sheep from cold and warming.

Likewise, the sheep survival dilemma in a query type. The risk is under lie because previous history indicates sheep's mortality when crossing the road in the field. It led despite the unluck encountered by the flocks of owners who endured the deprivation of social as well as economic non-benefits.



Fig. 4: Regular Vaccination

Furthermore, the sheep flocks are afraid to be caught during the grazing and nesting sheep animals and stray Fox, Henna the loss of life caused to sheep as these particular animals wounded the sheep and carried the sheep into the forest zone.

Another incidence of sheep flock loss is attributed to witchcraft in which shepherd groups are subjected and feared to large-scale flock loss, where this is considered a problem that occurred in particular in following the rituals of gods and goddesses in order to protect their flock from the above-mentioned threats and their inability to meet the requirements of their beliefs.

Sustainable livestock production

The adverse effect of livestock on arid and semi-arid regions has been overlooked for a long time, and has only been contentious in recent years. Sidahmed and Yazman (1994) claim that current pastoral structures are robust, although they adapt to high variation in temperature. There are excellent opportunities for the development of animals in these areas which are entirely compliant with environmental conservation.

In arid and semi-arid regions, livestock are mostly considered simply a method of animal processing, with little incorporation into other agricultural activities. In fact, however, the mobility of livestock in such structures usually implies a great deal of contact with crop production systems, in particular through manuring contracts between farmers and herders, the provision of drawn animals and the use of crop residues.

Much of the livestock's positive contributions to the ecosystem contribute to their position in integrated sustainable farming systems. Several examples are provided below, but they are not meant to be a comprehensive compilation of all processes in which livestock contribute positively to environmentally sustainable farming processes. Considered separately, a system of livestock production typically needs less fossil energy than a system of crop production which also relies

heavily on fertilizers and herbicides generated and spread using costly fossil fuel.

Livestock are sometimes raised on seed residues and by-products as well as pastures in mixed-farming systems. In addition, certain nutrients and organic matter are returned to the soil via livestock manure which ensures soil fertility is retained and acts as a soil conditioner. The key findings are increased cation exchange, greater water absorption and the reduction of runoff and crustine soil surface.

Livestock may be used effectively for plant management and thereby add to the elimination of herbicidal water contamination. This avoids the renewable oil that will normally be needed to produce and distribute herbicides.

Animal feed base may play a significant role in preserving the ecosystem. This contains of the major sources of oil, such as food-crop by-products and residues and sugar cane, or of the key sources of nutrition, such as multipurpose trees and water plants.

Suggestions

An appraisal is carried out along with review of the ownership of land and sheep and evaluation of the quality of labor and crops in the field of research. The question is suggested when the herd-size declines, and land ownership declines as well. This small herd owner shepherds should be assisted by the government and particularly during times of drought.

Financial assistance and growth research will be pursued through local job projects and the growing of some fodder types of grasses, vegetation and extensive grazing coupled with a long-term conservation agenda involving less goats, landless and small herder shepherds.

Conclusions

Realizing the socio-economic benefits accruing the sheep herders, it is convenient to say that the business is profitable to the considerable extent to large herd flock owners and as were as economic

to the small herd stock owners. However the Government and Non-government organisations could help at this stage of intervention and finally heck, i.e. medicine help, financial assistance and weaving technology (woolen spindles).Woolen blanket weaving and fertilization of the top soil and manuring. Further there shall be proper mix of sheep foliage and fodder varieties to graze these animals with the vertical forestry horizontal and linkages.

Further, the problem of sheep and livestock and their very survival is in question. Particularly during the important festivals like Bakrid and masamma local festivals which are religious festivals on these occasions at large scale sheep herds are scattered and slaughtered, sheep, cows, bullocks are left out with mercilessly. These dumb animals should be protected if not adequately grazed. This is the responsibility of environmentalists, economists, people god realising, government, NGOs and other agencies, institutions which work on the safeguard of these unlucky animals.

The ongoing process of sheep rearing would enable the sheep herders to go on their activities and also the land owner's shepherds will subsequently have engaged in farming activities and alternative agricultural labour activities such as sowing, weeding and harvesting work during summer slack season. Which enable the herder agriculturist earn considerable income?

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