

GOAT MARKETING SYSTEM IN RAJASTHAN

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Summary

The paper attempts to comprehend the goat marketing system in Rajasthan and analyze related development issues. The study in its sample covered a total of 120 goat keeping households with 60 each from Ajmer and Jaipur districts from eastern semiarid zone of Rajasthan along with 15 goat traders and 10 butchers. The farmers were not raising the male kids up to the economic age of slaughter. The share of kids of <3 months age (mostly male) was highest (39 percent) in the total sale of live goats by the farmers in a year. The farmers' participation in the livestock market was very low. The sale of goats from farmers to different buyers in the village itself accounted for more than 75 percent of the total sale of live goats and only about 25 percent of the surplus goats were sold in the livestock markets. The goat marketing was characterized by high middlemen's margin, pricing inefficiency, poor participation of farmers in the market, considerable transit losses, lack of access to market information, poor market infrastructure, no focus on food safety issues and no mechanism for regulation, monitoring and ensuring transparency in the livestock markets. Even one percent of the goat farmers were not satisfied with the existing system of marketing. The farmer's share in consumer's rupee varied from 65 to 76 % when the marketing channel ended within the state and it was less (58 to 60 %) when goats were exported to other states. The paper also describes the marketing behavior of farmers, marketing channels, existing goat markets and examines constraints in marketing of goats and draws policy suggestions for improvement in goat marketing system in Rajasthan.

Introduction

Livestock rearing is the most stable economic activity for the rural people in Rajasthan. Further the goats constituting the largest share (34%) of the total livestock in the state make them more important in the rural economy. Marketing of livestock is a neglected area both by the state and researchers. It is mainly because market information is grossly inadequate and arrangements for marketing are unsatisfactory. Also the nature of market varies by type of livestock. The purchase and sale of bovine, horse, camel, i.e. all large animals, have been through traditional animal fairs organized at conventional places at fixed time and also linked to social gatherings. On the contrary, for small ruminants there are very few markets (Rathore 2006). Marketing of these animals is both at doorstep and to some extent in weekly markets or in case of migratory flocks, on the route of migration. Sale of live kids and adult goats constitutes 60 to 80 percent of the gross returns from goat rearing activity (Kumar, 2007). Live goats have good demand in the domestic as well as international market and so also their products such as meat, skins and manure. However the marketing of goats particularly suffers from many drawbacks such as involvement of middlemen garnering high margins, avoidable marketing costs, unnecessary transportation, mortality of animals during transit leading to exploitation of both producers and the consumers (Subbarama Naidu et al, 1992 and Birthal and Taneja, 2006). The poor farmers are not in a position to objectively monitor the sale of produce to take advantage of better prices. Moreover the adoption of improved technologies and innovative marketing strategy has been considered the key drivers for success of goat farming activity. In this backdrop the present paper attempts to comprehend the goat marketing system in Rajasthan and analyze related development issues. Specifically, the paper describes a) the marketing behavior of farmers, b) marketing channels, c) existing goat markets and d) examines constraints in marketing of goats and e) draws some policy suggestions.

Materials and Method

Traditional goat farmers: To understand the marketing of goats at village level, the traditional goat farmers were covered under the study. Hence the eastern semiarid zone of Rajasthan was selected, where

goats are largely of 'Sirohi' breed, which is considered one of the best goat breed of the country. Further two districts namely; Ajmer and Jaipur having highest goat population in the zone and two Tehsils from each of these districts were selected at random. Then a cluster of three villages with relatively large population of goat was identified and selected from each selected tehsil with the help of local officials from each selected block was selected randomly. A random sample of 30 goat-keeping households from each cluster was taken up on the basis of flock size. Thus a total of 120 goat keepers were covered for data collection. Information from the traditional goat farmers were collected on the following aspects: socio - economic information, objectives and purpose of marketing, agencies of destinations, marketing behavior and pattern, marketing opportunities and status of marketing services, marketing costs and prices of live animals, their products and by products and constraints.

Market and its functionaries: Three major livestock/goat markets in the zone namely, Ajmer, Jaipur and Balaheri (near Jaipur) were selected for the in-depth study.

Traders / Commission agents/ Market functionaries: A total of 15 traders involved in goat marketing through different channels in these markets were selected randomly.

Butchers: To collect data on marketing cost, margins and price spread 10 butchers were selected at random from block level and district level markets.

Other information from the selected markets: Information on buyers, sellers, and commission agents, animal characteristics, prices, method of sale, purpose of buying and selling and marketing infrastructure was also collected. The data were analyzed through descriptive analysis.

Results and Discussion

Socio-economic profile of traditional goat keepers

Goat rearing in Rajasthan was an important economic activity of the rural people. Though, goats produce a variety of products such as meat, skins, milk, manure and fiber and some by-products, however for farmers, mainly surplus kids and adults, and to some extent milk and manure were sold in the market. The goat keepers were classified into four categories, namely very-small (1-5 does), small (6-15 does), medium (16-30 does) and large (>30 does). Very-small and small category together constituted two third of the goat keepers. The average flock size in different categories varied from 3.06 does (breeding female goats) to 46.23 does. The average land holding size in all the categories was almost same (5.42 – 6.92 acres) indicating that there was no relation between flock size and land holding size in Rajasthan and that the goat rearing was an important economic activity across all land-holding categories. The goat rearing (46 percent) and agriculture (42 percent) were the main occupations of the farmers. There was no social inhibition even in the large farmers against the goat rearing activity unlike many other states. The farmers' level of education was very low with 63 percent of them being illiterate.

Composition of sale of live goats

In response to the agro-ecological and resource situation of Rajasthan, the major objective of goat farmers was to produce more milk per goat. Most of the male kids were sold very early much before their economic age of slaughter. Majority of the farmers preferred to sell their goat kids at early age just after weaning (Table 1). The share of kids of <3 months age (mostly male) was highest (39 percent) in the total sale of live goats by the farmers in a year. It was much higher up to 44 percent in the large flock size categories. Due to scarcity of feeds and fodder, the farmers were not interested in raising the male kids up to the economic age of slaughter. Hence they wanted to get rid of the kids especially males just after weaning (when kids stop sucking mothers' milk at 2.5-3 months age). Another major sale category was 3-6 months kids, which were mostly sold in the local market for slaughter. Efforts should be made to encourage farmers to rear kids up to their optimum age of slaughter (6-8 months). The adult males, which formed 11 percent of the total sale of live goats, were sold mostly for Eid and few of them for breeding purpose. The adult females sold for slaughter were mostly culled ones.

Table 1. Composition of sale of goats (in %)

Age-group of goat	Very-small	Small	Medium	Large	Overall
< 3 month	26.20	30.87	43.13	44.37	38.79
3-6 month	21.03	20.58	22.00	26.85	23.08
6-12 month male	15.87	15.07	8.03	9.58	11.09
6-12 month female	9.59	2.61	5.35	7.41	5.62
>12 month male	18.82	17.68	8.61	5.77	11.01
>12 month female	8.49	13.19	12.88	6.02	10.41

Besides feed scarcity and comparatively higher income in early sale under feed scarce situations, the urgent cash need was the most important reason for selling the early age kids (Figure 1). The farmers were also constrained in managing the grown up male kids due to lack of sufficient and separate housing space for males and females. Though the farmers might have adjusted their sale of goats in response to the situation, but slaughter of the young kids was a direct loss to the farmers.

Behavior of sellers and buyers

The traders and butchers regularly visited the villages for buying the goats from the farmers. Some time they also sold the goats of one farmer to the other farmers in the village itself. Because of low density of livestock markets, the traders used to cover long distances of 30-40 km for collecting goats from the villages. Farmers never bargained the price of their goats on the basis of the value of the products and by-products of a goat. There was lack of access to correct market information for the farmers. The butcher /petty traders visiting the villages rarely competed among them and always tried to fix price of goats towards lower side.

The fear of lack of transparency in trading in the weekly markets was the biggest reason for selling goats in the village itself. It is evident from the fact that the price of goats in weekly markets was decided through 'under cover' method in 90 percent deals. In farmers' perception it was uneconomical to take small number of goats to the market for sale and moreover whole day was required to sell goats in the weekly markets. Forced sale of goats at low price to avoid their return from the market and lack of infrastructure facilities in the markets were other reasons to sell the goats in the villages. The farmers had a fear of being cheated in the weekly markets because most of the players in the livestock markets were the traders and butchers, who mostly talk in their own unique language. The traders many times in collusion fixed very low price for the goats of the farmers.

Fifty nine percent of the farmers felt that they get lower price for their goats than the existing market by about 22 percent mainly because of distress sale, lack of market information and poor health of their animals. In fact most of the farmers did not know that what type of goat has high demand in the market, and at what time (month) and age the animal would fetch better price. Therefore, educating them and ensuring timely access to market information would be the first step in enabling the farmers to get remunerative price for their goats. A number of goat farmers in Rajasthan were migrating to the neighbouring districts (up to 150 km) and few of them to neighbouring states in search of feed. During the migration, the farmers were forced to sell the young kids at low price, because it becomes difficult for kids to move long distances.

The marketing of live goats was totally in the hands of middlemen /traders and butchers. The farmers with very low exposure and low risk bearing ability preferred to sale their goats in the village itself. The maximum sale of goats was effected in the villages itself to the butcher/traders. It shows that the farmers' participation in the livestock market was very low. The sale of goats from farmers to different buyers in the village itself accounted for more than 75 percent of the total sale of live goats and only about 25 percent of the surplus goats were sold in the livestock markets (Table 2).

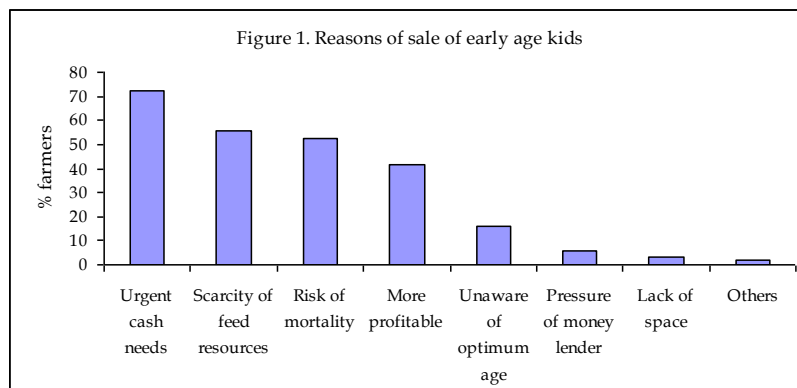
Table 2. Distribution of sale of live goats by trading place and buyers (in %)

Place of trading of live goats by the farmer	Buyers	Very small	Small	Medium	Large	Overall
Village	Farmer	21.5	14.59	3.04	4.47	8.47

Village	Butcher/trader	59.94	62.01	61.26	61.84	61.35
Village	Govt. agencies/ NGOs	13.11	4.86	5.57	3.95	5.33
Weekly market	Butcher/trader	4.36	11.67	13.67	11.79	12.00
Weekly market	Farmer	1.09	2.92	4.56	2.95	3.19
District level market	Trader	0	3.95	11.9	15	9.66

System of price fixation in village

The commonly followed units of sale of live goats were 'per head', 'per pair' and 'per group'. In spite of goats being the source of high value food, their price was not decided on body weight basis. The majority of the farmer-buyers purchased goats on 'per head' basis, while the traders/butchers opted more for 'per group' as the unit of purchase of goats (Table 3). The common method for price fixation of live goats in the villages was the mutual bargain and open sale system. Different buyers used different basis for deciding the price of live goats. The farmer buyers' priority was health and age of the animal. One-third of them also gave importance to the breed. The butchers and traders' main concern was the body weight and age of the animals, whereas the NGOs and government agencies purchasing breeding goats looked for breed, health and age of the animals. The farmers did not have idea of the market value of the total output of a goat after it gets slaughtered. Very large values of standard error of mean of realized price of goats indicate the large variations in the price of goats of the same category and same age group. The variation in margins of the middlemen might also be one of the main reasons of price variations.



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Table 3. Unit of sale/purchase of goats

Methods	Purchasing agencies (in percent)	
	Farmer	Butcher/ trader
Per head	68	24
Per pair	18	18
Per groups	12	51

The farmers' most preferred time of sale of their goats was winter season. Though the preference of sale in winter was economically right decision as the demand as well the price of meat-goats remained high during the winter season. But the farmers' decision of sale in winter was mostly not based on economic principles; rather it was due to fodder scarcity and to remove young kids to save some output of milk of goats, which otherwise would have been sucked by the kids. The second preference of time of sale was summer and last was rains. The availability of fodder was the major factor in the deciding the time of sale. As a coping strategy the farmers tended to sell goats during feed scarcity and increased their number during better availability of feed.

Village to nearby weekly market

Only one-fifth of the goat farmers took their animals to the weekly markets and that accounted for 15 percent of their total sale of goats in a year. All the farmers, except 3.33 percent of them, drove the animals on foot from villages to the nearby livestock markets (8-30 km). The petty traders/ middlemen often made use of the vacant Lorries and mini trucks proceeding towards the livestock market. At times two or three traders together shared a truck for transporting the goats. In the absence of any support from the government and their own inability to organize and innovate, the goat farmers were continuing with

the present system of goat marketing, but not even one percent of them were satisfied with the existing system of marketing.

Marketing channels for goats and price spread

The goats were mainly marketed through 11 marketing channels presented below. The channels II, III, IV, V and VI together were utilized for major share of the total sale of live goats (about 80 % of the total live goats traded). Though the goats were moving through different market functionaries and agencies before reaching to the final consumer, but farmers mostly sold their goats in the village itself.

Channel	End use of goats
I. Farmer -Farmer	Breeding
II. Farmer-Petty trader – Farmer	Breeding
III. Farmer-Butcher/Retailer - Consumer	Meat
IV. Farmer-Petty trader – Butcher/Retailer – Consumer	Meat
V. Farmer-Petty trader - Wholesaler/Interstate trader - Butcher/Retailer – Consumer	Meat
VI. Farmer-Petty trader - Wholesaler/Interstate trader – Petty trader - Butcher/Retailer - Consumer	Meat
VII. Farmer – Government agencies and NGOs - Farmer	Breeding
VIII. Farmer-Petty trader - Wholesaler/Interstate trader – Petty trader – Farmers	Breeding
IX. Farmer-Petty trader - Wholesaler/Interstate trader – Commercial Farmers	Breeding
X. Farmer-Petty trader - Wholesaler/Interstate trader – Exporter	Meat
XI. Farmer-Petty trader - Wholesaler/Interstate trader –Processor - Exporter	Meat

In case of goats, the product is not uniform. The price of goats varies with age, sex and weight even if the breed of animals is same. Hence to examine the price spread, the prices of only two types of animals i.e. 6-8 months age male for meat and 14-16 months age female for breeding were tracked. Moreover the in the marketing channels where the goats were finally sold for meat in the other states, the data on consumer price was not available. The farmer's share in consumer's rupee varied from 65 to 76 % when the marketing channel ended within the state and it was less (58 to 60 %) when goats were exported to other states through channels VIII and IV (Table 4).

Table 4. Price spread in different channels (for 6-8 months male and breeding female of Sirohi breed)*

Channel	6-8 m male (average weight 20 kg)			Breeding female of 14-16 m age (average weight 30 kg)		
	Farmer's price	Consumer's price	Farmer's share in consumer's rupee	Farmer's price	Consumer's price	Farmer's share in consumer's rupee
I.	--	--		2700	2700	100
II.	--	--		2420	3200	76
III.	1400	1950	72	--	--	--
IV.	1400	2150	65	--	--	--
VII.	--	--	--	2950	--	--
VIII.	--	--	--	2420	4050#	60
IX.	--	--	--	2420	4200#	58

* The price of goats varied depending mainly on their age, weight and sex; here however price spread has been examined only for two types of goats i.e. 6-8 m male and 14-16 m female.

The goats were sold to the goat breeders outside the state in Uttar Pradesh and Madhya Pradesh

Live goat markets and market functionaries

Three major livestock markets were covered in the study (Table 5). Goats constituted 83 percent of the total animals traded in these markets. The registration and permission from the district collector /municipality was required to start a new livestock market. District collector gives permission for the livestock markets which functions in the rural areas and the livestock markets which function in urban areas need permission from the municipality. These markets pay a nominal fee every year and their registration gets renewed in routine. However there was no monitoring at all of the functioning of the

livestock markets by the above agencies. The market owners/societies set their own rules for functioning of the market. All the three markets studied were owned and controlled by societies/associations. There was no involvement of the government at any stage. The daily arrivals of goats ranged from 3200 in Jaipur to 5000 in Balaheri, which reached to 7000 to 10000 per day in peak period in winter during festivals. The market fee per goat was Rs.40–200 in different markets which was quite high. Normally the buyer paid the market fee, but some times the seller, if agreed upon before finalizing the deal, paid it.

Table 5. Profile of livestock markets in Rajasthan

Name of market	Area of market place (m ²)	Day of operation	Arrivals per market day	Arrivals per day in peak period	Market fee per/animal, Rs.	Annual income Rs. in lakh
Balaherhi	5000	Tuesday	5000	7000	20 + 20	55.93
Ajmer	72000	Tuesday Saturday	4000	10000	4% of value of goat	132.06
Jaipur	3500	Thursday Saturday	3200	8000	5% of value of goat	162.06

The livestock markets had poor infrastructure. The office, shed for animals and drinking water for human beings was available in all the markets. None of the market had facility of veterinary aid and fodder for the animals. Even the essential facilities such as ramp to load and unload animals, drinking water for animals and transit accommodation were available only in one-third of the markets. The goats from rural areas from all over the Rajasthan were brought to these markets. The livestock/goat markets, totally controlled by private individuals/societies/associations had invested very little in infrastructure development. But these markets were doing a handsome business. Each year about 2 lakh goats were brought for sale in each market and 83 percent of them were finally sold. Sale of such large number of animals created huge earnings for the livestock market owners through collection of fee. The annual income of a livestock market ranged from Rs.56 Lakhs to Rs.162 Lakhs. There was no mechanism/agency to check the mal-practices in trading of goats. There was no veterinarian in the market to check the animals for any infectious disease. There was also no presence of any livestock extension agency in the market, which could otherwise prove a good platform for extension agencies. Surprisingly the government had almost no interest in the activities and functioning of the livestock markets. Also there was no representation of goat farmers in the market committees. It should be mandatory for the livestock market owners to create and maintain essential facilities in the market and also to create a transparent system of marketing by checking all the mal practices. There is also need to rationalize the market fee structure.

Market functionaries

Besides farmers, a range of market functionaries were involved in the marketing of goats and for majority of them (80%) trading of goats was a main occupation. Petty /small rural traders, butchers, big traders, farmers, other buyers and commission agents were operating in all the livestock markets (Table 6). The level of participation of farmers in the livestock weekly markets was very low except the market at Balaheri. The goat farmers of Rajasthan were highly skeptical to take their goats to market because of the fear of being cheated in the weekly markets. Neither of the functionaries was required to be formally registered, nor to pay any fee for operating in the livestock market. For most of the functionaries the goat trading was their family's traditional activity. Most of the traders (80 percent) had more than 10 years of experience in the trade. The functionaries were evenly distributed among different social groups. The maximum traders belonged to the schedule caste (40 percent) particularly *Khatik* followed by other backward castes and Muslims. The educational status of market functionaries was poor with 40 percent of them as illiterate and 40 percent between I-VIII standard. However they were well versed with the trade and had good knowledge of goat marketing system. The traders were not interested in increasing the transparency in the trade because of the fear of reduction in their margins. But the traders' biggest constraint was harassment by police and animal welfare department during transporting the goats and had to make considerable illegal payments.

Table 6. Market functionaries and their participation

Name of market	Market functionaries					
	Commission agents	Big traders	Petty/small traders	Butchers	Seller farmers	Buyers farmers
Balaherhi	0	30	100	20	500	500
Ajmer	37	150	350	200	20	10
Jaipur	12	27	50	50	10	15
Overall	16	69	167	90	177	175

Purchase and sale of goats by traders

The goat traders were regularly visiting a number of farmers' goat flocks in the villages. They made purchase deals every day but did not collect the purchased goats every day. As soon as the traders completed purchase deals of goats equal to one truck load or just one day before the weekly market, the purchased goats were collected from the farmers and transported in individual or shared truck depending on the numbers of goats, to the weekly market in early hours. The traders also sold goats to the other farmers in village itself. The prices of goats were higher in the weekly market as compared to the village, because of the larger numbers of buyers in the weekly markets. There was variation in the net margins of the goat traders depending on the place and season of sale. The returns from meat goats' were higher if sold in weekly markets, whereas the net margins of traders from the sale of breeding goats were higher if sold to the goat keepers in the village itself or to the commercial goat farmers from far away places. The net margins of traders per kid were estimated to be Rs. 139 to Rs.204 and net margins on a grown up kid or adult goat ranged from Rs.232 to Rs.302 while trading in the village. The net margins per adult goat were higher at Rs.252 to Rs.707 while trading in the weekly market. Further, the magnitude of margin of the middlemen traders fluctuated in normal and festive (Dushhara, Eid, Holi, Durga Puja) seasons (Table 9). It clearly shows that the margins of the middlemen were unduly high. In the prevailing goat marketing system, though the middlemen provide critical services by creating space utility, but their unduly high margins should be brought down by organizing and creating greater awareness among farmers. The destinations of live goats bought by rural/small traders were the outside big traders in direct contact (60%), local market (30%), terminal/metropolitan markets (30%) and the goat breeders (20%).

Marketing cost incurred by petty traders

The petty /rural traders, who connect the goat farmers to the market, were the most important link in the goat marketing network. As the goat traders were regularly visiting goat farmers/flocks in the villages on daily basis, each of them was a repository of information on the availability of goats of different type and age with the farmers in the traders operating area. The major cost incurred by the petty trader was his labour spent in collection and trading of the goats. Besides labour, the cost incurred on collection and transport of animals from villages to the weekly market including the losses due to mortality during transit was estimated to be Rs.22 per grown-up goat and Rs.16 per kid. These costs were estimated to be Rs.12 and Rs.8, if the buying and selling took place in the villages itself without bringing the goats to the weekly market.

Trading of males for Eid festival

Preparing males by keeping them on special feeding for their sale during the festival of Eid was a usual practice adopted by few farmers and most of the traders. Healthy males of over one year age (two teeth) with good health and look were in high demand for offering during the festival of Eid. Such males during Eid were sold at almost double the price as compared to the normal season. The traders purchased such males (mostly castrated) 20 to 30 days before the festival of Eid (in few cases 2 months before) and kept them on high energy and fat ration and sold them during Eid. It was revealed that the net margin of traders per animal was estimated to be Rs.375 to Rs.780 (Table 7). The sale price of these males during Eid was as high as Rs. 125 - 150 per kg of live body weight. However, most of the goat farmers did not have awareness and attitude to take benefit of the lucrative Eid market; only 11% farmers were preparing males for sale during the Eid. Although, majority of the traditional goat farmers were aware of the

potential benefits of sale during Eid, but the lack of commercial orientation, low risk bearing ability and lack of market information were constraining factors.

Table 7. Purchase and sale of males for festivals

Market	No. of male traded	Purchase price/ animal, Rs.	Collection & fattening cost, Rs.	Sale price/ animal, Rs.	Net margin/ animal, Rs.
Market I	16	3450	275	4260	535
Market II	21	3980	390	5150	780
Market III	12	3735	310	4420	375

Pricing of live goats in the livestock marketing

Among the three units of sale of goats 'per head' and 'per pair' were commonly used by the traders in the weekly markets. The price of goats in 90 percent deals was decided through 'under cover' method with the help of commission agents/middlemen. Hence, the goat farmers did not have good opinion about the fairness in trade in the weekly markets that resulted into low participation of farmers in livestock markets. The traders' basis of price fixation of live goats was mainly the body weight of the animals (Table 8). But there was no facility for weighing the animals in any of the market. The traders had the ability to judge weight of the animal through '*Hattha system*' wherein the weight of goat is judged by holding it on its back, but the farmers remained unaware of the weights of the goats. The other bases of valuing the animal were breed, colour and body size and milk yield in case of does.

Table 8. Basis of price fixation (% traders)

Particular	Response		
	Adult female	Adult male	Kids
Body weight	70	90	60
Breed (colour and body size)	80	70	60
Age	60	70	20
Milk yield	90	-	-

Constraints faced by farmers in the goat market

The goat farmers' weakest point was that he did not have access to market/price information, had no idea about the demand and supply situation. Having low education level and exposure, farmers were not able to use the available information in taking right marketing decisions. On the other hand the traders had very good knowledge of the market, demand and supply situation. Therefore, the farmers were not in a position to negotiate/ bargain for price with the traders/butchers. The constraints as perceived by the farmers are depicted in Table 9.

Table 9. Constraints faced by farmers in goat markets

Particulars	Percent farmer
High marketing fee/ commission: should be ≤ 1 % of value of goat	40.0
Lack of transparency in trading: under cover method	73.3
Very poor access to market/ price information	30.0
Prevalence of collusive activity of traders	20.0

Weekly markets to city slaughterhouses

Meat animals were transported from weekly markets to different destinations mostly by ordinary trucks. Depending on the number of animals to be transported, few traders/ butchers jointly engage a truck and share the expenses. Generally, for transporting goats to city slaughterhouse specially built two tier trucks were used. Over loading of the trucks to minimize the transport cost was very common. As a result few animals died (2 %) during the transit. Animals' considerable body weight is also lost (shrinkage) during transport to long distances. The extent of shrinkage depends on different factors such as travel distance, mode of transport, season in which transported, age of the animals, density of animals

loaded in a truck etc. This kind of loss can be avoided, if the animals are slaughtered close to their production centers and meat is transported to urban centers.

Interstate trade in small kids

An interesting marketing system for small kids has emerged since last couple of years. The farmers in Rajasthan want to sell their male goat kids at the earliest possible age mainly because of scarcity of feed resources (high cost of feeding in summer and winter season) and to save more milk of goats for selling it to the market. On the other hand, the small and marginal farmers and landless households especially the women in western Uttar Pradesh, west Bengal and parts of Bihar are interested in rearing 2-3 of these male kids of larger breed particularly 'Sirohi' from Rajasthan under intensive and semi intensive system. These males of Sirohi were especially raised for their sale during the festival of Eid. A well fed male of Sirohi breed is large in size and bear good look and colour, it fetched good price of Rs.3500 to Rs.5500 during the Eid festival. In response to the market demand, the traders from Uttar Pradesh were buying small Sirohi male kids of 2-3 months age at about Rs. 500-700 per kid and sold it to the rearers in U.P., Bihar and West Bengal at a price of Rs.800 to Rs.1000 per kid. Although the transfer of young kid from Rajasthan to U.P. and W. Bengal for raising them has been an unorganized effort, but it is surely in desirable direction. In this system, the small kids are being shifted from feed scarce region to the area with relatively better availability of feed resources and were raised properly on relatively low cost feeds resulting in higher efficiency of resource use (feed and fodders), and prevented the slaughter of under-age animals. Therefore, it would be appropriate to make some organized efforts to encourage the farmers and entrepreneurs to adopt kid rearing for commercial chevon production by purchasing the weaner kids (when kid stops taking mother's milk at 2.5 to 3 months age) from the traditional breeders of feed scarce regions and rear them under intensive or semi intensive system for achieving a target finishing weight of 25-30 kg at 6-7 months of age.

Trading of goat and its meat by the butchers

Depending on the size of market, the butchers/meat traders were slaughtering 1 to 5 goats daily. On account of insufficient space and pathetic conditions of the slaughterhouses, only 30 percent of the butchers/meat traders were slaughtering the goats in the slaughterhouses maintained by the municipalities. Rest 70 percent butchers/meat traders were slaughtering the meat goats either inside their shop, or behind the shop or in their home. The small towns at block level and village did not have any slaughterhouse. The hygiene and cleanliness at the place of slaughter was not maintained at all.

A butcher/meat shopkeeper is required to take permission from the municipality or district magistrate for opening a meat shop or keeping required slaughtering equipments. Meat shopkeeper had to pay Rs. 600/- per annum as shop registration fee and one rupee per goat as slaughter fee for using the slaughterhouse, to the municipality. But the meat shopkeepers in the small villages and towns paid no such fee and acquired no permission for slaughter. A veterinary doctor is responsible for monitoring the slaughter and slaughterhouses. But as such the hygiene and food safety issues were most neglected in the slaughterhouses of the municipality. The in-charge veterinary doctor rarely visited the slaughterhouses. The officers responsible for checking the quality of meat on these open shops, as informed by the meat traders, do not visit the meat shops. Hence, the quality of meat sold to the consumers was not inspected at any stage for food quality and safety. As a result the butcher/meat-sellers slaughtered even the diseased goats and sold their meat causing risk to the consumers' health. The butcher/meat traders purchased live goats from the nearby livestock markets and villages. Requirement of live goats for 5-7 days sale of meat (7-8 to 20-25 goats) was purchased in one lot. These animals were mainly maintained on grazing along with some supplementation till their slaughter in next 1 to 5 days. The butcher and the meat seller was the same person. No meat shop had refrigeration facility. The left over meat in the shop in the evening during the summer was stored with ice in the big cities. The meat sellers in the small towns and villages did not have proper storage of left over meat even in summers. All the meat sellers were keeping the carcass in open in their shop with no protection from the flies, dust and smells.

Table 10. Price and composition of purchase of goats by butchers

Types of goats	Share in total purchase (%)	Purchase price (Rs./kg live wt.)	Marketing cost of the butcher/meat seller (Rs. /kg live wt.)	Total cost Rs./kg live wt.
Weak and old	22	35	5	40
Grown up males	41	55	4.5	60
Kids (6-12 months)	17	60	5	65
Kids (<6 Months)	20	57	5.5	62
Overall	100	54	5	59

The butcher/meat shopkeeper paid different prices for the goats of different age groups and health status. However they were selling the meat of all kinds of goats at one price of Rs. 120-150 kg (Table 10). The body weight and expected meat yield of a goat was the major basis for deciding the price of animals by the butcher. During the normal sales, the butcher/meat seller paid @ Rs 54 per kg of live body weight for the farmers' goats. They also incurred an average marketing and processing cost of Rs 5 per kg of live body weight on collection and purchase of goats, market fee, feed cost, cost of selling, fixed cost and rent of shop etc. Thus the total cost incurred by the butcher/meat seller was Rs.59 per kg of live body weight. With average dressing percentages of 50, a goat of 30 kg body weight produces 15 kg meat (carcass) besides the by-products. The cost of acquiring a goat, gross returns from sale of products and by-products on its slaughter, marketing costs and margins of petty traders and butchers and share of the farmer were estimated.

The goat farmers got 68 per cent share in the consumers' rupee. The share of rural/petty traders, butcher/meat sellers and the marketing cost in the consumers' rupee was 6.95, 16.44 and 6.95 percent, respectively. Share of the traders/butchers in the consumers' rupee during the festive sale on Eid, Holi, Dushhara etc was much higher up to 20-25 percent of the value of goat paid by the consumer. The butchers also earned much higher net margins in the trade of diseased goats, these animals were purchased at through away prices and their meat was sold on the same price as that of healthy animal @ Rs. 120 –140 per kg.

Conclusions and implications

The goat marketing in the state was completely unorganized and in the hands of large number of livestock traders and butchers and hardly attracted any interest of the government. On the one hand these market functionaries provided useful marketing opportunity for the goat keepers and created space utility, but on the other hand it was characterized by high middlemen's margin, pricing inefficiency, poor participation of farmers in the market, considerable transit losses, lack of access to market information, poor market infrastructure, no focus on food safety issues and no mechanism for regulation, monitoring and ensuring transparency in the livestock markets. The market margin ranged from 24 to 42 percent of the final price. However there is a tremendous potential for increasing the revenue from goats provided the production and trade are organized.

In the absence of any support from the government and their own inability to organize and innovate, the goat farmers were continuing with the present system of goat marketing, but even one percent of them were not satisfied with the existing system of marketing.

Standards should be laid down for transportation and shipping of goat and sheep. These standards should be effectively implemented.

There should be a system of authentic collection and reporting of market intelligence on small ruminant production and marketing of their important products. The farmers should have access to the information on prevailing market prices of goat and sheep, their products and by-products. The regulatory body should also ensure that live small ruminants are marketed on body weight basis and not on per head basis.

Every livestock market should have a weighing machine to weigh the live goats in order to arrive at a right price. Even there should also be the provision of weighing machine in each village/Panchayat as most of the farmers' goats are traded in the village itself.

In view of pathetic condition of slaughterhouses there is need to encourage small size modern slaughterhouses near to the production centers. Therefore single window system for granting permission and license to set-up meat production/ processing units should be created by the Government.

The prospects of goat and sheep meat export would be available only for value added meat products and organic meat, particularly ready to cook meat with seasoning and vaccume packaged frozen meat in different cuts. Efforts should be made to encourage farmers to rear kids up to their optimum age of slaughter (6-8 months) for optimizing income.

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