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Study on marketing of skin and hides in district **Hyderabad**

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Abstract

The present study was carried out during 2017-18 on marketing of skin and hides in district Hyderabad. A total of 100 respondents were interviewed. The collected data was tabulated and presented as frequency and percentage. The results of the present study showed that the major constraint in determination of selling price 15.00% of the farmers received market price on itself, while 45.00% and 50.00% of the farmers collecting information regarding selling price of skin and hides from buyers and negotiation, respectively. Similarly, the majority of the butchers depends on buyers for selling price of skin and hides and 05.00% of the butchers market their commodities itself and did not believed on negotiation at all. Only (1.00%) of local collectors selling the skin and hides on agreement selling price of buyers and 06.00% of local collectors buying their commodities on selling price fixed by negotiation. However, the majority of the wholesaler depends on buyers for selling price of skin and hides and 05.00% of the wholesaler market their commodities itself and did not believe on negotiation at all. The major constraint in production of skin and hides faced by the respondents were diseases and parasites, followed by fly cut, lack of veterinary service and drought. The major marketing constraint in skin and hides faced by the respondents were lack of competitive pricing, followed by lack of transparent quality and lack of access to the market. The major marketing constraint in skin and hides faced by the butchers were administrative problems, followed by unstable price, poor quality of skin and hides, storage/preservation, transportation facility, lack of handling skin and hides, hygienic condition, and information flow regarding marketing of skin and hides, correspondingly. The study concluded that the respondents facing major constraints in marketing of skin and hides in district Hyderabad Sindh.

Keywords: Marketing, skin and hides, livestock products

1. Introduction

Skin of cattle, camels, and buffaloes is called hide and that of goat and sheep is known as skin. Skins could be obtained from fish, shark, crocodile, birds and reptiles as well as wild and domesticated animals [1].

Sheeps and goats are the largest part of livestock system of Pakistan. Due to varied climatic conditions of the country sheep and goats are suitable for the production of various qualities of raw skins. Sheep and goat population of the nation is estimated around 25.5 and 23.4 million, respectively [2]. In rural areas skins and hides are significantly vital for livestock products to the poor families. Usually supplied to domestic as well as foreign markets. Because of significant economic importance of marketing of skin and hides, attempts should be made to improve the quality and quantity for the effective and efficient utilization [3]. It is a commercial practice that farmers usually treat animals when they are getting ill or injured. One of the old and common traditional method to treat animal is branding practiced by the farmers, and this produce negative effect on hides and skins quality. Hides and skin are meat by products and little emphasis have been given for its collection and processing for better quality of leather [4]. The bulk of hides and skins exported and utilized for leather tanning in the Kenya are produced in the arid and semi-arid areas [5]. However it has been observed that the full potential of hides and skins production have not been realized in Kenya and other countries due to low quality [6], observed that pastoralist use sun drying methods of curing hides and skins leading to poor quality products. There is declining market demand for sun-dried hides and skins as they produce leather products of poor quality. This has led to a shift from the use of sundried skins in the tanneries to wet salted hides and skins. Sun dried hides and skins take more time to tan and use more chemicals at the tanneries as compared to wet salted hides and skins.

Wet salting is a simple technology of preserving hides using salt. If good quality wet salted hides are produced, prices of hides would go up, markets channels would increase and adequate revenue could be realized by the producer and traders [5]. Few studies [7-9] were conducted for the better quality of skin and hides byproducts. However, few or no detail studies on marketing aspects of the raw materials have been done. The study is of significant importance to smallholder farmers to attain efficient marketing for better price. Whereas, it is important to gain market information about hides and skins in the study area as well as understanding about better quality of livestock products and their effect on market prices. Therefore, present study is designed to analyze functioning of skin and hides marketing in district Hyderabad, Sindh. Study will be useful for policy makers for implementation of specific and efficient measures to develop well-organized marketing system that will help smallholders in the rural area of district Hyderabad, Sindh.

The channels for the collection of hides and skins to the tanneries are relatively well established but need significant improvements to reduce damages caused by thorns, ectoparasites diseases, poor flaying and storage methods. Whereas achieving significant improvements on the former two may not be easy given the country's under the developed animal health delivery system and livestock grazing habits, technical improvements on the latter two are within reach given some commitment, [10]. These hides and skins are the end products of animal production, as an end product although more correctly they are by-products; they are important and valuable resources. In the developing world they are almost never exploited to anything like their full potential. Hides and skins are often intrinsically and up discarded or wasted because of ignorance or misinformation, [11]. Majority of the world's rural poor and a significant proportion of the urban poor keep livestock for various reasons that extend far beyond income generation [12]. In the current study the market channel for skin and hide in Tigray region function at four levels; primary, secondary, tertiary and terminal markets. Primary markets were done by homestead slaughter houses based in rural towns of various districts. Secondary markets were done by local collectors (Primary traders). Primary traders collect hides from livestock keepers in the villages or households in the cities and sell to secondary trader (Wholesale traders). Secondary traders after preservation by sun or air drying or as fresh sell to terminal markets /tanneries / in Tigray particularly to Sheba leather industry and other urban centers (Addis Ababa tanneries). Thetannery was also supplied directly from the slaughter premises (Abergelle international export abattoir and Addis Ababa abattoir). The tannery is at the final end ofthe marketing chain of raw skin and hides.

2. Materials And Methods

The present study was carried out during the year 2017-2018 on the marketing of skin and hides in district Hyderabad. Initially, the general information was obtained from different sources for physical situation of the study area. Prior to sampling, meetings were arranged with livestock experts in the district to make the clear purpose of study. A total of 100 respondents from different agencies involved in skin and hides marketing were interviewed to know the major management defects, issues, constraints and causes of defect at tanneries regarding skin and hides of sheep/goat, cattle/buffalo and camel.

The selection of farmers from various places of Hyderabad was based on the selection of union councils or representative areas of the district. The research involved the task of figuring out research plans, selection of samples, data collection, tabulation and analysis of data and interpretation of results. Survey method has been proved successful in finding out generalization in the field of livestock management; this method was employed to perform the study.

The research was completed through a field survey by using well validated interview schedule. The interviewing schedule questionnaire was considered an appropriate tool for the present study, which was advised according to the requirement and relevance of the present research to collect relevant data. Required data were collected through field survey. To attain accurate and reliable data; care and caution were taken in course of data collection. The farmers were asked questions in a face to face manner while door step. Based on the questionnaire the following major information was collected:

Following information /data regarding skin and hides were collected

- 1 Determination of skin and hides selling price.
- 2 Major production problems of respondents.
- 3 Major marketing problems of respondents.
- 4 Major marketing problems of butchers.

2.1 Statistical analysis: The data was statistically analyzed using computerized statistical package i.e. Student Edition of Statistix (SXW), version 8.1. Frequency and percentage of the obtained data was worked out and presented in result chapter.

3. Results

The present study was carried out during the year 2018 to 2019 on marketing of skin and hides in district Hyderabad. The findings of the present study are presented in this chapter.

3.1 Determination of skin and hides selling price

Market information is most important than the commodity. Information of market at appropriate time is most important for marketing of hides and skins as well as for other commodities.

Table-1 indicates that 15.00% of the farmers received market price on itself, while 45.00% and 50.00% of the farmers collecting information regarding selling price of skin and hides from buyers and negotiation, respectively. Similarly, the majority (43.00%) of the butchers depends on buyers for selling price of skin and hides and 05.00% of the butchers market their commodities itself and did not believed on negotiation at all. Only (1.00%) of local collectors selling the skin and hides on agreement selling price of buyers and 06.00% of local collectors buying their commodities on selling price fixed by negotiation. However, the majority (45.00%) of the wholesaler depends on buyers for selling price of skin and hides and 05.00% of the wholesaler market their commodities itself and did not believe on negotiation at all

3.2 Major production problems of respondents:

Table-2 indicated that the major production constraint in skin and hides of sheep and goat faced by the respondents were diseases and parasites (56.00%),followed by fly cut (26.00%), lack of veterinary service (13.00%), and drought (05.00%).

3.3 Major marketing problems of respondents

Table-3 indicated that the major marketing constraint in skin and hides of sheep and goat faced by the respondents were lack of competitive pricing (68.00%) followed by lack of transparent quality (23.00%) and lack of access to the market (09.00%).

3. 4 Major marketing problems of butchers

Table-4 indicated that the major marketing constraint in skin and hides of sheep and goat faced by the butchers were administrative problems (22.50%) followed by unstable (17.50%), poor quality of skin and hides (10.0%), storage (preservation of skin and hides by means of salted vs non salted) (12.50%), transportation facility (07.50%), lack of handling skin and hides (10.00%), hygienic condition (10.00%) and information flow regarding marketing of skin and hides (10.00%), correspondingly.

4. Discussion

Skin and hides are vital items for generation of foreign currency and economic development in Pakistan. However, sheep and goats populations of Pakistan is constrained and threatened due to multiple factors like diseases, malnutrition and poor management. Skin diseases due to ectoparasites, i.e. mites, mange, lice and ticks resulted in serious economic losses to the country. Pakistan are defected and inappropriate for export. Mostly these defects occurred during pre-slaughter stage. Considerably large portions of these defects are directly related to parasitic skin diseases. Moreover, there are significant impacts due to post-slaughter defects associated with poor management and treatments of skins after slaughtering the animals. Slaughter and flaying operations of sheep and goats is also conducted in many cases traditionally and by unskilled persons resulting in a number of observed post slaughter defects. These problems are increasing continuously increasing during past few years that are threatening the small ruminant population, tanning and leather industries and economy of the country at large that warrants serious interventions [7, 9, 13].

Hides and skins need to be preserved in the mean time until they reach their final destination. This is because of the fact that they are easily damaged otherwise. Preservation is a partial dehydration of the skin. The use of salt or simply air drying is supposed to assist the process of dehydration. The objectives of preservation follow the natural process OT decomposition and maintain the structure of the skin in the best possible condition. The preservation process starts from the moment the animal is skinned until the skin reaches the factory where it is going to be processed [14].

4.1 Determination of skin and hides selling price

Prices of hides and skins have been reported to be determined mainly by the buyer and the role of the seller is very minimal. In fact, all butchers, middlemen and collection centers also responded that buyers have power on price determination. Farmers sell mostly fresh skins and dried hides to middlemen, who in turn sell to collection centers [15] indicated that 66% of producers in Tigrai region sell their hides and skins to local collectors (middle men). The fact that only 18% of households sell their hides and skins directly to collection centers suggests that most of respondents (households) are living far from collection centers and cannot sell their products at better price. All butchers that were interviewed sell the hides and skins after slaughter. Most of butchers sell

their hides and/or skins to collection centers which is similar with [16], the butchers or meat exporters sell the hides and skins to merchants who will then export them or sell them to domestic tanneries. Only 17.5% of butchers sell to middlemen. This suggests that most butchers have information about the price difference between middle men and collection centers and butchers are in town which is nearer to collection centers [17]. In addition to that, collection centers have workers who collect sheep and goat skins from the butchers every day by going up to the butcher's house [18, 19]. This may have created good opportunity to butchers to sell their products directly to collection centers [20]. This agrees with [21] who gave the analysis that the hides and skins produced in butcheries and abattoirs are auctioned to big traders and to tanneries, both public and private. Middlemen are the second links within the market channels. They buy their hides and skins mostly from households with lower price and sell the products with good price to collection centers. [15] indicated that Wholesale traders provide both information regarding price and sometimes advance payments for selected reliable clients (local collectors). They lack information about the marketing price and there are a chain of middlemen who buy hides and skins with low price from producers who have no more information about the market price and sell with good price to collection centers [22, 23]. There were no trainings given at different stages within the market chain but only given to few actors such as supervisors and agricultural workers. This agrees with [15] who reported that only 45% of the sampled farmers received extension service regarding husbandry and livestock products management, with very little focus on hides and skins management and marketing.

4.2 Major production problems of respondents

The most prominent production constraint faced by the respondents was diseases and parasites followed by fly cut, lack of veterinary service and drought. These results are in concurrence with those of [8] recorded major constraints viz., pickled skins "ekek" (itching), flying defect, scar, scratch, poor substance, pox and putrefaction [24]. analyzed the major defects that caused rejection were ekek, wound, scratch, scar, flay cut, machine defect and pox and putrefaction [9]. reported that scratching of skin, lesions, wounds, old lesions of pox, flaying cuts, tick infestation, parasites infestation, scratches, chatter fly hatchlings, disintegration, charr (fibrosis), ringworm contamination, abscesses and lice infestation. These problems might be due to the mishandling of skin and hides in the study area as well as lack of knowledge regarding the proper handling of skin and hides provided by the government or private sectors.

4.3 Major marketing problems of respondents:

Marketing constraint in skin and hides of sheep and goat faced by the respondents were lack of competitive pricing followed by lack of transparent quality and lack of access to the market. These results are in agreement with the findings of [15] reported that hides and skins are traded in accordance with international free market conditions in terms of price. But this system works to the advantage of the big traders and tanneries that have the opportunity and capacity to follow world market price trends and fluctuations [25]. The fact that most producer respondents reported to sell hides and skins in a fresh state in 12 hour without preservation are encouraged [26]. Delaying preservation of selling without the necessary precaution results in the spoilage of products and degrades

their quality [24, 27, 6] observed that pastoralist use sun drying methods of curing hides and skins leading to poor quality products. [16] has identified that most animals in African countries are slaughtered in facilities which do not have adequate infrastructure or tools required to ensure production of good quality hides and skins [28]. As a result hides and skins that are ground dried become poor in quality [7]. As soon as hides and skins are removed from the animal, it is susceptible to autolysis (self-digestion) and bacterial degradation that cause to lose the hide and skin substance and lead to a poorer quality leather [29]. The rate of degradation increases with increase of temperature [30]. This agrees with report by [31], If good quality wet salted hides are produced prices of hides would go up, markets channels would increase and adequate revenue could be realized by the producers (butchers) and traders.

4.4 Major marketing problems of butchers

The major marketing constraint in skin and hides of sheep and goat faced by the butchers were administrative problems followed by unstable, poor quality of skin and hides, storage (preservation of skin and hides by means of salted vs non salted), transportation facility, lack of handling skin and hides, hygienic condition and information flow regarding marketing of skin and hides. Similar finding supported by [15] reported that most important husbandry related quality defects of the products are livestock diseases and parasites, like mange, as well as lack of veterinary services were indicated as the major hindrance of quality by 73.6% of the sample farmers. Injury, flay cut and drought also have significant effect on reducing the quality of hides and skins. Of the sample farmers, 26.4% responded that they face rejected grades from the traders, due to low quality of hides and skins caused by drought, flay cut and injury, forcing them to sell at lower price. [32] reported that lack of competitive pricing is the major problem of marketing. Farmers do not set price for their hide or skin. The reasons stated by farmers are: usually prices set by traders, they are mostly price takers, because they can't return back their hide or skin. Of the farmers' hides and skins prices, 62.8% set by buyers. Measuring or grading quality is the second marketing problem for 19.8% of the farmers. Even though some farmers have knowledge about the quality, they are not allowed to check the measuring standards [33]. Lack of access to market (information and distance) and unstable hides and skins prices also have significant problem to the farmers [34].

Table 1: Determination of skin and hides selling price

Particulars	Who determine price		
	Myself	Buyers	Negotiation
Farmers (100)	15	45	50
Butchers (40)	07	43	0
Local collectors (10)	03	01	06
Wholesaler (30)	05	45	0
Total	30	134	56

Table 2: Major production problems of respondents (n=100)

Particular	Frequency	Percentage
Disease and parasites	56	56.00
Flay cut	26	26.00
Lack of veterinary facilities and services	13	13.00
Drought	05	05.00
Total	100	100

Table 3: Major marketing problems of respondents (n=100)

Particular	Frequency	Percentage
Shortage of competitive pricing	68	68.00
Poor assessment of transparent quality	23	23.00
Lack of access to the market	09	09.00
Total	100	100

Table 4: Major marketing problems of butchers (n=40)

Particular	Frequency	Percentage
Administrative problems	09	22.50
Unstable prices	07	17.50
Poor quality	04	10.00
Storage	05	12.50
Transport	03	7.50
Lack of handling skin and hides	04	10.00
Hygienic condition	04	10.00
Information flow	04	10.00

5. Conclusion

In view of the present finding, the study concluded that the respondents facing major constraints in marketing of skin and hides in district Hyderabad, Sindh. The most prominent constraints viz., diseases and parasites, fly cut, lack of veterinary service, drought, lack of competitive pricing, lack of transparent quality; lack of access to the market, respectively. The major constrains faced by butchers were administrative problems, unstable, poor quality of skin and hides, storage (preservation of skin and hides by means of salted vs non salted), transportation facility, lack of handling skin and hides, hygienic condition and information flow regarding marketing of skin and hides.

6. Reference

- Abaineshe J. Assessment of pre Slaughter Hide and Skin Management in and Around Assela and Sagure Town, East Arsi Oromia Regional State Ethiopia. DVM Thesis, Addis Ababa University, College of Veterinary Medicine and Agriculture, Department of Animal Production Studies, Bishoftu, Ethiopia. 2014, 1-16.
- GOP. Pakistan Livestock Census. Agricultural Census Organization, Statistics Division, Government of Pakistan, Lahore, 2017.
- 3. Rodriguez A, Ali L, Afzal M, Shah NA. Marketing of goat and sheep skins in highland Balochistan, Pakistan. Journal of Animal Science. 2007; 65(4):158-165.
- 4. Adugna A. Summary Report on Hides and skins Quality Improvement and marketing Development Efforts and Their Achievements in Tigrai Region, Mekelle, Tigrai, 2004.
- 5. Wayua F, kagunyu A. Empowering for 31113613118): 313iversification: hides and skins value addition and marketing in Northern Kenya. Paper presented. at the Animal Production Society of Kenya (APSK), 2008.
- Foxwell E. The camel marketing system of Kenya; Process, constraints and improvements. University of New Castle, 1999.
- 7. Ahmed AH. Critical strategic factors affecting value addition of raw hides and skins in Kenya. International Journal of Social Sciences and Project Planning Management. 2015; 11(5):1-16.
- 8. Daniel A, Fentahun T, Admassu B. Study on the Major Defects That Causes Sheep and Goat Skins Rejection in Bahir Dar Tanning Industry, Ethiopia. Academic Journal

- of Animal Diseases. 2015; 4(3):170-176.
- Chaudhry Z, Saiddain A, Sabir N, Malik NA, Azeem S, Sajid A. Prevalence of pathological conditions causing skjn damage and consequently reducing its market value in domestic ruminants of Punjab, Pakistan. Veterinary Science Development. 2011; 1(1):21.
- 10. Yacoob A. An audit of livestock marketing status in Kenya, Ethiopia and Sudan in the marketing of livestock in Kenya, Ethiopia and Sudan. CAPE, OAU, 2002, 1.
- 11. FAO. Higher Value Addition through Hides and Skins, Lan Leach And R. Trevor Wilson. Rural Infrastructure and Agro Industrial Division, Food an Agriculture Organization of the United Nation, Rome, 2009.
- 12. Randolph TF, Schelling E, Grace D, Nicholson CF, Leroy JL, Cole DC *et al.* Role of livestock in human and health for poverty reduction in developing countries. Journal of Animal Science. 2007; 85:2788 2800.
- 13. Habib AB, Noor IA, Musa AE. Effect of some skin defects on physical properties of the leather. Journal of Applied and Industrial Sciences. 2015; 33(3):112-119.
- 14. Liulscged lemma. The performance of Hides and Skins Marketing in cheo Zone, Southern Nations, Nationalities and Peoples Regional State, Ethiopia, 2011.
- 15. Arkebe B. Assessment of hides and skins marketing in Tigrai region: the case of Astbi woreda, Eastern Tigrai. A thesis submitted to school of graduate studies of AAU, in partial fulfillment for regional and local development studies, Addis Ababa, 2009, 40-70.
- 16. Jabbar MA. Micro-finance for livestock development in the arid/semi-arid areas of Kenya: Investment opportunities and credit supply mechanisms. Working paper prepared for the African Development Bank, Abidjan, Cote de'Iviore, 2002, 17.
- 17. Hagos A, Yacob H, Mulugeta Y. Impact of sheep and goats ectoparasites on the tanning industry in Tigray region, Ethiop. Veterinary journal. 2013; 17:63-76.
- 18. Bisrat R, Gebremichael J, Urgessa Y. Defect Assessment of Ethiopian Hides and Skin: The Case of Tanneries in Addis Ababa and Modjo, Ethiopia. Journal of Animal Science. 2013; 11(4):395-398.
- 19. Haffeze M. Study on Skin Diseases of Small Ruminants in Central Ethiopia, DVM Thesis, FVM, Addis Ababa University. 2001, 17-27.
- 20. Ermias Y. A study on ectoparasites of fresh sheep pelts and assessment of pickled skin defects processed at Sebeta tannery, DVM thesis, Faculty of Veterinary Medicine, Addis Ababa University, 2000.
- 21. UNIDO. A Strategic Action Plan for the Development of the Ethiopian Leather and Leather Products Industry: Integrated Plan for Ethiopia, unpublished, Addis Ababa. 2004, 1
- 22. Yibralem A. Current problems of the leather industry. In: R.C. Merkel, G. Abebe and AL. Goetsch. The opportunities and challenges of enhancing goat production in East Africa. Proceedings of a conference held at Debub University, Awassa, Ethiopia from November 10 to 12, 2000. E (Kika) de la garza institute for goat research, Langston University, Langston. 2002, 139.
- 23. Amsalu D, Bewket S, Kassa T, Tefera T, Gezahgne M, Dagne M *et al.* Mange: A disease of growing threat for the production of small ruminants in Amhara National Regional State. The opportunities and challenges of enhancing goat production in Ethiopia, 2000, 10-12.

- 24. Addis J. Assessment of pre Slaughter Skin Management in and Around Assela and Sagure Town, East Arsi Oromia Regional State Ethiopia. DVM Thesis, Addis Ababa University, College of Veterinary Medicine and Agriculture, Department of Animal Production Studies, Bishoftu, Ethiopia. 2014, 42-45.
- 25. Tesfay K, Negash G, Hagos Y, Hadush B. Pre-slaughter, slaughter and post slaughter defects of skins and hides at the Sheba Tannery and Leather Industry, Tigray region, northern Ethiopia. Journal of Veterinary Medicine. 2015; 32(1):132-138.
- 26. Umar SM, Suleiman A, Aminu A *et al.* Valuechainanalysis of hides and skin in Daura area of Katsina State, Nigeria. Journal of Agricultural Economics, Extensionand Rural Development. 2015; 3(3):263-270.
- 27. Zenaw Z, Mekonnen A. Assessment of Major Factors That Cause Skin Defects at Bahir Dar Tannery, Ethiopia, School of Veterinary Medicine. Advances in Biological Research. 2012; 6:177-181.
- 28. Berhe AN. Assessment of hides and skins marketing in tigrai region: the case of Atsbi Wemberta Wereda, eastern Tigrai. Journal of Animal and Plant Science. 2009; 32(1):415-421.
- 29. Melkamu B. Apparent defects and grading of hides and skins in East Gojjam Zone, Amhara Region. Ethiopia, International Journal of Agricultural Science Research. 2014; 3:232-242.
- 30. Kanagaraj J, Babu NKC. Alternatives to Salt Curing Techniques. Journal of scientific and Industrial Research. 2002; 61:339-348.
- 31. Kagunyu A, Wayua F, Ngari E and Lengarite M. Factors affecting marketing of hides and skins in pastoral communities of northern Kenya. KARI (Kenya Agricultural Research Institute) Marsabit Technical Report. 2011.
- 32. Mendoza and Mark Rosegant. Pricing conduct of spatially differentiated markets. Prices, Products, and People. International Potato Center, Lima, Peru. 1995, 343-356
- 33. Stigler GJ. The Theory of Price. Fourth Edition. Prentice-Hall of India, New Delhi. India. 2005, 371.
- 34. Sintayehu G. Historical Development of Systematic Marketing of Livestock and Livestock Products in Ethiopia. In: Opportunities and Challenges of Livestock Marketing in Ethiopia. Yilma Jobre and Getachew Gebru (Eds). Proc. of the 10th Annual conference of the Ethiopian Society of Animal Production (ESAP) held in Addis Ababa, Ethiopia, August 22-24, 2002. ESAP, Addis Ababa. 2003, 407.