

APPRAISAL OF OPPORTUNITIES AND CONSTRAINTS OF SKIN AND HIDES MARKETING AT SHAHEED BENAZIRABAD DIVISION IN PAKISTAN

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ABSTRACT

Study was carried out during the year 2017 on the appraisal of opportunities and constraints of skin and hides marketing at Shaheed Benazirabad separation. A total of 150 respondents were interviewed including 50 farmers from each districts namely Naushahro Feroze, Sanghar and Shaheed Benazirabad. The results of the present study showed fly cut followed by disease and parasites (26%, 26% and 24%) as the main production problems. In districts Naushahro Feroze, Sanghar and Shaheed Benazirabad, the major marketing problem was shortage of competitive pricing, poor assessment of transparent quality and lack of access to the market. 39%, 40% and 41% respondents said that government did not provide credit / loan, while, 45%, 47% and 44% of respondents stated that government did not provide transport facilities. 43%, 42% and 41% of respondents reported that government did not provide technical training regarding proper handling and marketing of skin and hides. 33%, 30% and 29% of the respondents stated that government provide slaughter house facility, 41%, 38% and 40% of respondents said that government provide veterinary doctor for checking quality of skin and hides, 35%, 37% and 34% of respondents argued that government provide market price in all three districts. 80%, 84% and 88% of respondents transported hides and skins by means of track. 25%, 50% and 50% of the livestock keepers sell their hides and skins to middlemen. 75%, 80%, 75% of respondents sell hides and skin at lower price when not sold in the market. 90%, 85% and 95% of the respondents used salting method for preservation of hides and skin. 60%, 40% and 60% of the respondents determined absence of flay defects criteria when they purchased hides and skin from middlemen / retailer. 100%, 80% and 100% of the respondents demanded salted skin and hides in the study area. 60%, 40% and 60% respondents believed that variation in market prices from season to season might be due to export price variation, whereas 20%, 40% and 20% argued that factory / tanner price variation / setting and wholesalers price setting was major reason for variation in market prices from season to season. Study concludes that the most prominent constraints faced by respondents are diseases, parasites and fly cuts. The major constrains faced by butcher are administrative problems, poor quality of skin and hides, storage, transportation facility.

Keywords: Constraint, Handling, Marketing, Ruminant, Skin

INTRODUCTION

Hide and skin are broadly defined as external integument of large animal, while skin is provided by smaller animal. The best source of hide and skin from domestic animal are cattle, sheep and goats. However, hide and skin can also be obtained from other species of domesticated and wild animals, hide from buffalo, horse, camel, and elephant, and skin from pig, ostrich, rabbit, mink, snake, frog and shark. In developing world, they are almost never exploited to anything like their full potential (Teklay, 2010).

Archeological studies have shown that conceal and skins have been used as antiquity as clothes, vessels, bedding, and perhaps structurally in ancient dwelling seats (Arugna, 1995). According to the report of (FAO, 2010), skin of livestock, camels, and buffaloes is called conceal and that of goat and sheep is branded as skin. Skins could be obtain from go fishing, shark, crocodile, birds and reptiles as well as wild and domesticated animals (Abaineshe, 2014). hide and skins are an end product of animal manufacture. As a reserve, Hides and skins are the uncooked resources for various types of businesses – such as collecting, processing and distributing which provide many service jobs in countries where livestock are produced (Leach and Wilson, 2009). The parts of the major actors and business sector channels, investigated strengths and shortcoming of the marketing framework, and estimated the possible demand of the hides and skins. The marketing margin and marketing cost examination indicated transport charges, pay and region charge, labor cost, preservation material cost and store rent were costs that impacted the marketing margin (Berhe, 2009).

The hides and skins are significant basis of sell abroad income and its payment to the national economy may be far below the predictable potential. The injure may be due to skin parasites and skin diseases that affect the live animal, connected to husbandry practices on the farm or in transport of the live animal. Besides management practices and processing technique, skin quality is also affected by the genotype and environment or usual (Teklebrhan *et al*, 2012). The quality of the hide or skin is to a large extent connected to the amount of injure to the grain (or outside) surface. The injure may be due to skin parasites so as to affect the live animal. Husbandry practices on the farm or in convey of the exist animal (scratches, bruising, or dirt contamination, horn rake); it may be due to injure during kill or removal of the hide; or it may be cause by inappropriate handling or inadequate conservation techniques (Adugna, 2004).

Hides and skins are important livestock products providing income for the poor people living in the rural areas of the region. Traditionally farmers treat their animals when they get sick or injured. Of the different traditional methods of treating animal practiced by the farmers branding is the common and this has a significant negative effect on the quality of the hides or skins produced from branded animal. Hides and skins are meat by-products and there is still little consideration given to the care required for the collection and processing of the hides and skins in to high quality leather (Adugna, 2004). The tannery operation involves converting the raw skin, a highly putrescible material, into

leather, a stable material, which can be used in the manufacturing of a wide range of products. The whole process involves a sequence of complex chemical reactions and mechanical processes. Various steps of pre- and post-treatment generate a final product with specific properties: stability, appearance, water resistance, temperature resistance, elasticity and permeability for perspiration and air, etc. (FAO, 2010). This study is very important to smallholder farmers, animals-herders, veterinarians, transport operators, butchers and live stock trader to enable that how to reduces damage of hide and skin before the animal is slaughtered. It also contributes to better understanding of the quality of livestock by products (hide and skin) and its effect on the quality of by-product.

MATERIALS AND METHODS

The present study was carried out during the year 2017 on the appraisal of opportunity and constraints of skin and hide marketing at Shaheed Benazirabad separation. at first, the general information was obtained from different sources for physical situation of the study area. Prior to sampling, meetings were set with livestock experts in the district to make the clear purpose of study. Field visits were made to meet pre-information and select the villages and thereby the household. A total of 150 respondents from different agencies involved in skin and hides marketing was interviewed to know the major management issues, constraints and causes of defect at tanneries on the topic of skin and hides of sheep/goat, cattle/buffalo and beige. The selection of farmers from various places of Shaheed Benazirabad division was base on the selection of union councils or representative areas of the district. The research concerned the task of figure out research plans, selection of samples, data collection, tabulation and psychoanalysis of data and interpretation of results. Survey method has been prove successful in finding out generalization in the field of livestock organization; thus this method was employed to perform the study. In order to assess the appraisal of traditional/conventional management practices in the study area, it was imperative to explore and assess the present situation of goat and sheep production for the sake of assessment that it is extremely important rather demanding that an exploratory research study is designed to compose the clear picture of the present existing management system in different representative areas of Shaheed Benazirabad division.

The research was done through a field survey by using well validated interview schedule. The interviewing schedule/questionnaire was well thought-out an proper tool for the near study, which was advised according to the requirement and importance of the present research to collect relevant data. Required data were collected throughout field survey. To attain accurate and reliable data, mind and caution were taken in route of data compilation. The farmers be asked questions in a face to face manner as door step. base on the questionnaire the information different study parameters such as marketing channels, marketing systems, marketing chains, market structure, preservation methods, transportation of skin and hides, defects in skin and hides were collected.

Statistical analysis

The data was statistically analyze by computerized statistical wrap up i.e. Student Edition of Statistic version 8.1. Frequency and percentage of the obtained information was worked out and presented in result chapter.

Results

Market Structure

Hides and skin marketing starts from producer/consumer, a chain of middlemen then it reaches the tanneries (Fig.1). The marketing chain for skin and raw hides comprises of the primary producers/consumers (individual meat consumers, rural slaughter slabs, municipal slaughter houses, abattoirs, meat processing plants), agent of traders, collectors, local tanners, regional medium/small traders, regional big traders and tanneries. The individual consumers who kill animals in their backyard, sell the skin and hides either to agents, collectors or directly to regional

small/medium traders. Preservation is done by air-drying or wet salting, the hides and skin are passed on to big traders to the tanneries. The tanneries can be supplied straight from the slaughter premises, regional big traders as well. The tanneries process hides and skin received from their suppliers either in fresh, air dried or wet salted to semi-finished or finished stages for both local and export marketing. Market structure for raw hides and skin is shown in Fig 1.

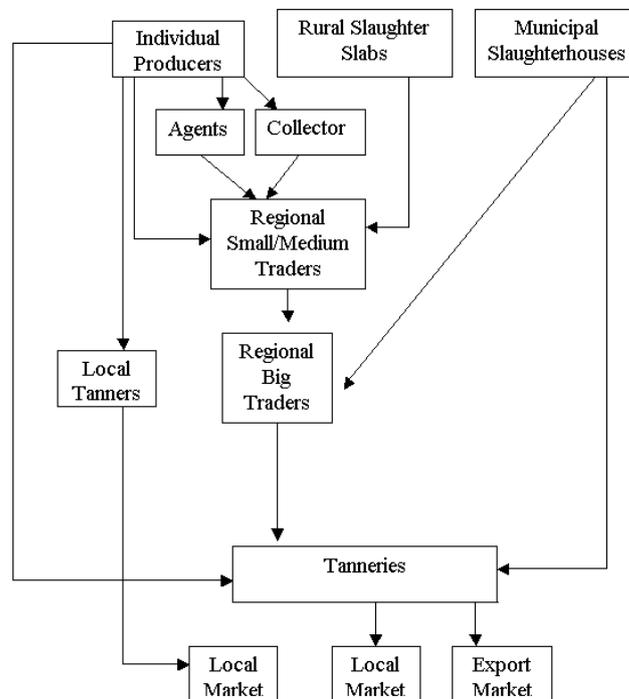


Fig. 1: Marketing structure for hides and skins

Age of respondents

Data regarding age of the respondents were collected and summarized in table-1. The data shows in district Naushahro Feroze, maximum number of respondents (26.00%) was lying in the age group of 36-40 years and minimum number of respondents (4.00%) was fall in the age of 15-20 years. Incase of district Sanghar, maximum number of respondents (30.00%) was lying in the age group of 31-35 years and minimum number of respondents (4.00%) was fall in the age of 46-50 years. However, maximum number of respondents (32.00%) was belongs to the age group of 26-30 years and minimum number of respondents (2.00%) was fall in the age of 46-50 years in district Shaheed Benazirabad.

Education

Educational status of respondents in district Naushahro Feroze, Sanghar and Shaheed Benazirabad was evaluated and represented in Table-2. Majority of the respondents (28%) was illiterate, 18%, 20%, 26% was educated upto primary, middle and matric level in district Naushahro Feroze. However, the majority (32 and 22%) of respondents in district Sanghar was illiterate and primary level of education followed by 20% educated upto matric, 16% middle and 6% intermediate. Incase of Shaheed Benazirabad district, maximum percentage (26%) of the respondents was educated upto primary level of education, 24% middle, 20% intermediate, 16% matric, 4% diploma and rest of the 10% illiterate respondents.

Purpose of keeping ruminants

The livestock owners were also enquired about the purpose of keeping ruminants and the results are depicted in the Table-3. The data clearly notified that almost all (100%) of the respondents keep ruminants for cash purpose in Naushahro Feroze, Sanghar and Shaheed Benazirabad, respectively.

Table 1: Age of the respondent (n=150)

Age (years)	Naushahro Feroze		Sanghar		Shaheed Benazirabad	
	Frequency	%	Frequency	%	Frequency	%
15-20	02	4	05	10	4	8
21-25	5	10	06	12	7	14
26-30	8	16	11	22	16	32
31-35	10	20	15	30	11	22
36-40	13	26	07	14	6	12
41-45	8	16	04	8	5	10
46-50	4	8	02	4	1	2

Table 2: Education of the respondent (n=150)

Education	Naushahro Feroze		Sanghar		Shaheed Benazirabad	
	Frequency	%	Frequency	%	Frequency	%
Illiterate	14	28	16	32	5	10
Primary	9	18	11	22	13	26
Middle	10	20	8	16	12	24
Matric	13	26	10	20	8	16
Intermediate	4	8	3	6	10	20
Diploma	0	0	2	4	2	4
Graduate	0	0	0	0	0	0
Total	50	100	50	100	50	100

Table 3: Purpose of keeping ruminants (n=150)

Purpose	Naushahro Feroze		Sanghar		Shaheed Benazirabad	
	Frequency	%	Frequency	%	Frequency	%
For cash	50	100	50	100	50	100
For milk	0	0	0	0	0	0
For draught	0	0	0	0	0	0

Number of animals kept by the respondents

The data (Table-4) indicates that majority of the respondents (44%, 52% and 46%) kept buffalo in all three districts. While, 28%, 20% and 22% kept cattle, 20%, 28% and 30% kept goat and rest of the 8%, 12% and 2% kept sheep in all three districts.

Major production problems of respondents

Major production problems of respondents in district Naushahro Feroze, Sanghar and Shaheed Benzirabad are presented in Table-5. According to the (36%, 34% and 32%) respondents the major dominant production problem was fly cut followed by disease and

parasites reported by (26%, 26% and 24%) respondents, lack of veterinary facilities and services reported by (18%, 22% and 20%) respondents and drought reported by (20%, 18% and 24%) respondents in all three districts.

Major marketing problems of respondents

In district Naushahro Feroze, Sanghar and Shaheed Benazirabad, the major marketing problem was shortage of competitive pricing (44%, 40% and 38%), poor assessment of transparent quality (34%, 42% and 46%) and lack of access to the market (22%, 18% and 16%), respectively

Table 4: Number of animals kept by the respondents (n=150)

Particulars	NaushahroFeroze		Sanghar		Shaheed Benazirabad	
	Frequency	%	Frequency	%	Frequency	%
Cattle	14	28	10	20	11	22
Buffalo	22	44	26	52	23	46
Sheep	04	8	06	12	01	2
Goat	10	20	14	28	15	30
Total	50	100	50	100	50	100

Table 5: Major production problems of respondents (n=150)

Particulars	Naushahro Feroze		Sanghar		Shaheed Benazirabad	
	Freq.	%	Freq.	%	Freq.	%
Disease and parasites	13	26	13	26	12	24
Flay cut	18	36	17	34	16	32
Lack of veterinary facilities and services	09	18	11	22	10	20
Drought	10	20	09	18	12	24
Total	50	100	50	100	50	100

Perception of respondents regarding government support and facilities

The data regarding perception of respondents regarding government support and facilities are presented in Table-7. Majority of the respondents (39%, 40% and 41%) said that government did not provide credit / loan, while, 45%, 47% and 44% of respondents

stated that government did not provide transport facilities and 43%, 42% and 41% of respondents reported that government did not provide technical training regarding proper handling and marketing of skin and hides in all three districts. A bulk of 33%, 30% and 29% of the respondents stated that government provide slaughter house facility, 41%, 38% and 40% of respondents said that government provide veterinary doctor for checking quality of skin and hides,

35%, 37% and 34% of respondents argued that government provide market price in all three districts.

Table 6: Major marketing problems of respondents (n=150)

Particulars	Naushahro Feroze		Sanghar		Shaheed Benazirabad	
	Freq	%	Freq	%	Freq	%
Shortage of competitive pricing	22	44	20	40	19	38
Poor assessment of transparent quality	17	34	21	42	23	46
Lack of access to the market	11	22	09	18	08	16
Total	50	100	50	100	50	100

Table 7: Perception of respondents (n=150) regarding government support and facilities

District	Naushahro Feroze		Sanghar		Shaheed Benazirabad	
	Yes	No	Yes	No	Yes	No
Government provide credit / loan	11	39	10	40	09	41
Government provide slaughter house facility	33	17	30	20	29	21
Government provide veterinary doctor for checking quality of skin and hides	41	09	38	11	40	10
Government provide transport facilities	05	45	03	47	06	44
Government provide market price	35	15	37	13	34	16
Government provide technical training regarding proper handling and marketing of skin and hides	07	43	08	42	09	41

Perception of butchers on hides and skin

The perception of butchers regarding the hides and skin was evaluated and presented in Table-8. In district Naushahro Feroze, Sanghar and Shaheed Benazirabad almost (88%, 84% and 80%) of the butchers buy their animals to local markets, while (12%, 16% and 20%) of the butchers buy their animals from other markets. Approximately (80%, 84% and 88%) of respondents transported hides and skins by means of track and rest of the (20%, 16% and 12%) of respondents used foot transportation method. Exactly, 60%, 68% and 60% of the respondents used Animal with good body

condition and pure skin criteria and remaining (40%, 32% and 40%) of them used animal with good body condition criteria. Majority (80%, 80% and 80%) of the respondents have opinion that the size of skin and hide was the parameter for buying skin and hides, whereas (20%, 20% and 20%) of them have opinion that quality of skin and hide was the parameter for buying them. Almost (80%, 80% and 80%) of the respondents keeping the animals in house before slaughtering and rest of the (20%, 20% and 20%) of the respondents keeping the animals outside house before slaughtering in all three districts.

Table 8: Perception of butchers regarding marketing of hides and skin in districts Naushahro Feroze, Sanghar and Shaheed Benazirabad (*n=25)

Perception	Naushahro Feroze *		Sanghar *		Shaheed Benazirabad *	
	Freq.	%	Freq.	%	Freq.	%
Locations used to buy the animals						
Local Markets	22	88	21	84	20	80
From another markets	3	12	4	16	5	20
Transportation method used						
By foot	5	20	4	16	3	12
By track	20	80	21	84	22	88
Criteria used to buy animals for slaughtering						
Animal with good body condition	10	40	8	32	10	40
Animal with good body condition and pure skin	15	60	17	68	15	60
Parameters used for buying skin and hides						
Size of skin and hide	20	80	20	80	20	80
Quality	5	20	5	20	5	20
Low price	0	0	0	0	0	0
Keeping of the animals before slaughtering						
In house	20	80	20	80	20	80
Outside	5	20	5	20	5	20

Perception of middlemen / traders (market) regarding marketing of hides and skin

The perception of middlemen / traders regarding the marketing of hides and skin was evaluated and presented in Table-9. In district Naushahro Feroze, Sanghar and Shaheed Benazirabad almost (25%, 50% and 50%) of the livestock keepers sell their hides and skins to middlemen, whereas, (50%, 50% and 25%) of them sell their hides and skins to middlemen. Approximately (75%, 80%, 75%) of respondents sell hides and skin at lower price when not sold in the market and remaining (25%, 20% and 25%) of them discard it. Majority (75%, 85% and 90%) of the respondents stated that

national price fixed the hides and skins prices in the market. Mostly (75%, 65% and 55%) of the respondents used quality of the skin and hides parameter when they buy. Almost (75%, 80% and 80%) of the respondents sell their hides and skin in the same market, while (25%, 20% and 20%) of them sell in other market. Majority (70%, 50% and 45%) of the respondents observed wound infestation in hides and skins, whereas (15%, 25% and 30%) of the respondents observed fly cut in hides and skins at the time of buying. Most of the respondents (75%, 80% and 70%) used transport system for hides and skins, whereas (25%, 20% and 30%) of them transport hides and skins by means of foot. Almost (90%, 85% and 95%) of the respondents used salting method for preservation of hides and skin.

Table 9: Perception of middlemen / traders (market) regarding marketing of hides and skin in districts NaushahroFeroze, Sanghar and Shaheed Benazirabad (*n=20)

Perception	NaushahroFeroze		Sanghar		Shaheed Benazirabad	
	Freq.	%	Freq.	%	Freq.	%
Selling of Skin and Hides						
To district market	5	25	10	50	10	50
To middlemen	10	50	10	50	5	25
To collection center	5	25	00	0	5	25
Difficulty of selling						
Sell at lower price	15	75	16	80	15	75
Discard it	5	25	4	20	5	25
Price followed						
National price	15	75	17	85	18	90
Market price	5	25	03	15	02	10
Parameters used to buy skin and hides						
Quality	15	75	13	65	11	55
Quantity	3	15	4	20	6	30
Low price	2	10	3	15	3	15
Location to sell skin and hides						
In the same market	15	75	16	80	16	80
To other market	5	25	4	20	4	20
Defects affecting price						
Wound	14	70	10	50	9	45
Fly cut	3	15	5	25	6	30
Ecto-parasites	3	15	5	25	5	25
Transportation methods						
By foot	5	25	4	20	6	30
By transport	15	75	16	80	14	70
Preservation methods used						
Salting method	18	90	17	85	19	95
Sun Drying	02	10	03	15	01	5

Perception of hide and skin collection centers regarding marketing of hides and skin

The perception of hide and skin collection centers regarding marketing of hides and skin was evaluated and presented in Table-10. In district Naushahro Feroze, Sanghar and Shaheed Benazirabad almost (60%, 40% and 60%) of the respondents determined absence of flay defects criteria when they purchased hides and skin from middlemen / retailer, whereas, (40%, 60% and 40%) of them

determined freshness of hides and skin criteria. Approximately (80%, 100%, 80%) of respondents used transport system for hides and skins. Majority (60%, 40% and 20%) of the respondents stated that they purchased hides and skins from middlemen, whereas (40%, 60% and 80%) respondents purchased hides and skins from butcheries. Mostly (100%, 100% and 100%) of the respondents demanded salted skin and hides in the study area. Most of the (100%) collection centers stated that the hides and skins prices was fixed in the market according to the national price.

Table 10: Perception of hide and skin collection centers regarding marketing of hides and skin in districts Naushahro Feroze, Sanghar and Shaheed Benazirabad (*n=05)

Perception	Naushahro Feroze *		Sanghar *		Shaheed Benazirabad *	
	Freq.	%	Freq.	%	Freq.	%
Criteria used to do you use to buy skin and hides						
Absence of flay defects	3	60	2	40	3	60
Freshness	2	40	3	60	2	40
Transportation methods						
by foot	1	20	0	0	1	20
by transport	04	80	05	100	04	80
Purchasing channels used to buy skin and hides						
Middlemen	3	60	2	40	1	20
Butcheries	2	40	3	60	4	80
Demand of skin and hides in market						
Salted	05	100	4	80	5	100
Sun drying	0	-	01	20	0	-
Price followed						
National price	04	100	5	100	5	100
Self	0	-	0	-	0	-
Black market	1	-	0	-	0	-
Difficulties during purchased						
Lack of price information	1	20	1	20	1	20
Low price offer	2	40	2	40	3	60
Low quality product	2	40	2	40	1	20
Channels used to know prices						
Broker	4	80	5	100	4	80
Other Hides and Skins traders	1	20	0	0	0	0
Friends/ other producer's	0	0	0	0	1	20

Variation of the prices						
Usually experience	4	80	3	60	4	80
Not applicable	1	20	2	40	1	20
Reasons for price variations						
Export price variation	3	60	2	40	3	60
Factory/Tannery price variation /setting	1	20	2	40	1	20
Wholesalers price setting	1	20	1	20	1	20
Peak prices experiences						
During holidays	4	80	3	60	4	80
Other than holidays	1	20	2	40	1	20

Almost (40%, 40% and 60%) of the collection centers have opinion that the most dominant reasons for purchasing hides and skins was low price offer and low quality products, whereas (20%) of them reported lack of price information was major reason for purchasing hides and skins from the buyers. Mostly (80%, 100% and 80%) of the collection centers get market price information of hides and skins from broker. Almost (80%, 60% and 80%) of the respondents stated that the variation in prices they usually experienced. Most of the (60%, 40% and 60%) respondents believed that variation in market prices from season to season might be due to export price variation, whereas (20%, 40% and 20%) argued that factory / tanner price variation / setting and wholesalers price setting was major reason for variation in market prices from season to season. However, majority (80%, 60% and 80%) of the collection centers stated that during holidays the price variation reaches high in the market and (20%, 40% and 20%) of them reported that price variation reaches high other than holidays in the market.

DISCUSSION

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 of 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 (Liulseged lemma, 2011). In view of the present finding, the study concluded that the respondents facing major constraints in marketing of skin and hides in all three districts. 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. 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. 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 Arkebe (2009) 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.

These results are in concurrence with those of Daniel *et al.* (2015) investigated the prevalence of major defects that caused skin rejection at Bahir Dar tannery. From the inspected 400 (200 sheep and 200 goat) pickled skins 114 (28.5%) of skins were rejected. Most skins were grouped under grade five (27.8%) and six (34.5%) in both species. 30 (25.2%) "ekek" (itching) and 17 (25.0%) flying defect was the major causes of minimizing and/or rejection of shoit skins at pickled level took after by scar 59 (14.8%), scratch 57 (14.2%), poor substance 40 (10.0%), pox 29 (7.2%) and putrefaction 20 (5.0%). The general prevalence of sheep and goat skin defects was 100%. There was no any pure skin that is the reason grade one and two were barred from grading of pickled skins. High rejection were recorded from additional large-sized skins (30.0%), trailed by largesized (29.0%), small-sized (22.0%) and medium-sized (17.0%).

The outcome demonstrated that 26.5% of goat skins and 22.5% sheep skins were rejected. There were statistically significant variations in the occurrence of the defects between the shoit skins. "Ekek" (27.5%) and flying defect (17.0%) were profoundly prevalent in sheep skins where as scratch (14.2%) was prevalent on goat skins. The occurrence of "ekek" was statistically diverse between species, 110(27.5%) higher in sheep than 16.5% (33/200) in goats. Addis (2014) demonstrated the major factor that caused rejection of skin and hide on wet blue skins and hides.

Chaudhry *et al.* (2011) studied the hide and skin markets and abattoirs of Lahore and Faisalabad and tanneries of Sheikhpura, Kasur and Sialkot. An aggregate of 21,671 skins and hides were inspected out of which 3918 skins and 600 hides were analyzed at the abattoirs of Lahore and Faisalabad, Skins 6784 and hides 1399 at hide markets and skins 8091 and hides 879 at tanneries. Out of aggregate 21,671 skins and hides, 66.12% were normal and 33.88% were having some sort of damage. The most widely recognized damages watched in general in all species contemplated were decay of skin 6.38%, followed in diving order watched was lesions of wounds 4.94%, old lesions of pox 4.82%, flaying cuts 3.17%, tick infestation 3.08%, lesions caused by parasites infestation 2.45%, scratches 2.33%, lesions caused by chatter fly hatchlings 1.47%, disintegration 1.32%, charr (fibrosis) 1.28%, ringworm contamination 1.10%, broad ruining by manure 0.84%, interminable abscesses 0.46%, and lice infestation 0.17%. Zenaw and Addis (2012) observed 99.9 % defects. Chaudhry *et al.* (2011) studied the hide/skin markets and abattoirs of Lahore and Faisalabad and tanneries of Sheikhpura, Kasur and Sialkot. An aggregate of 21,671 skins/hides were inspected out of which 3918 of skins and 600 hides were analyzed at the abattoirs of Lahore and Faisalabad, 6784 Skins and 1399 hides at hide markets and 8091 skins and 879 hides at tanneries. Out of aggregate 21,671 skins/hides, 66.12% were normal, and 33.88% were having some sort of damage. Arkebe (2009) reported that, in Ethiopia, 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. The fact that the majority producer respondents reported to sell hides and skins in a fresh state in 12 hour with no preservation is encouraged.

Delaying preservation of selling without the necessary precaution results in the spoilage of products and degrades their quality. Foxwell (1999) observed that pastoralist use sun drying methods of curing hides and skins leading to poor quality products. Jabbar (2002) has identified that most flora and fauna in African countries are slaughtered in facilities which do not have adequate infrastructure or tools required to make sure creation of good value hides and skins. As a outcome hides and skins that are ground dried become poor in quality. 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. The rate of degradation increases with increase of temperature (Kangaraj and Babu, 2002). This agrees with report by Kaguyun *et al.* (2011), 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. Melkamu (2014) evaluated the apparent defects and grading of hides and skins in Eastern Gojjam zone. From these, 74 (41.1%) hides, 750 (33.3%) sheep skins, 151 (31.4%) wet salted and 88 (30.9%) air dried goat skins were grade I; 90 (half) hides, 1380 (61.3%) sheep, 261 (54.4%) wet

salted and 168 (58.9%) air dried goat skins were grade II; 16 (8.9%) hides, 120 (5.3%) sheep skins, 67 (14%) wet salted and 29 (10.2%) air dried goat skin were grade III; and 1 (0.2%) wet salted goat skin was grade IV. The main watched defects that downgrade the hides were messiness with a value of 142 (17.9%), gouge mark with a value of 140 (17.7%) and poor example with a value of 107 (13.5%). Zembaba *et al.* (2013) investigated the dissemination and extent of major defects of sheep and goat skins. Defects caused by soil and blade are observed to be the most important defects of sheep and goatskins.

CONCLUSION

In view of the present findings, the study concludes that in all study districts respondents face major problem in marketing of skin and hides. The major production problems faced by the respondents in each districts include diseases and parasites, fly cut, lack of veterinary facilities and services and drought. Major marketing problems faced by the respondents in each of all three districts are shortage of competitive pricing, poor assessment of transparent quality, lack of access to the market.

REFERENCES

- Abaineshe, J. (2014). Assessment of pre Slaughter Hide and Skin Management in and Around Assela and Sagure Town, East ArsiOromia Regional State Ethiopia. DVM Thesis, Addis Ababa University, College of Veterinary Medicine and Agriculture, Department of Animal Production Studies, Bishoftu, Ethiopia; Pp.1-16.
- AdugnaAbreha (2004): Summary Report on Hides and skins Quality Improvement and marketing Development Efforts and Their Achievements in Tigray Region, Mekelle, Tigray.
- Adzitey, F. (2011): MiniReview Effect of pre-slaughter animal handling on carcass and meat quality, School of Industrial Technology, UniversitiSains Malaysia, Minden, 11800, Pulau Pinang, Malaysia, International Food Research Journal 18: 485-491.
- Ahmed M. (2000): Development Potential and Constraints of Hides and Skins Marketing in Ethiopia. The opportunities and challenges of enhancing goat production in East Africa. Proceeding of a Conference Held at Debub University, Awassa, Ethiopia from November 10- 12, 2000. E (Kika) dela Garza Institute for Goat Research, Langston University, Langston, UK, Pp: 127-138.
- Andargachew K. (1990): Sheep marketing in Central highland of Ethiopia .MSc thesis, university of Agriculture School of graduate studies, July 1990, Direedwa, Ethiopia
- Arunga, R. (1995). The role of hides, skins, leather and leather products for sustainable economic growth. Proceedings of a regional workshop held at Addis Ababa from July 28-30, 2010, Addis Ababa.
- Baily, D. (2003).The preservation of hides and skins. Journal of American leather chemists association, 98: 308-320.
- BerheArkebe (2009): Assessment of hides and skins marketing in Tigray Region: The case of atsbiwembertaworeda, Eastern Tigray, MA thesis, Addis Ababa university school of graduate studies college of development studies institute of regional and local development studies
- Cadirci, B., Ozgunay, H., Vural, C. and Yilmaz, O. (2010). A new defect on leather: microbial bio-film. Journal of American Leather Chemists Association, 105(2): 129 -134.
- Chabari, F. (1994).Livestock marketing in range management handbook of Kenya Vol. II, 9, Turkana District.Republic of Kenya, Ministry of Agriculture, Livestock.
- Daniel, A., T. Fentahun and B. Admassu. 2015. Study on the Major Defects That Causes Sheep and Goat Skins Rejection in Bahir Dar Tanning Industry, Ethiopia. Academic Journal of Animal Diseases 4 (3): 170-176.
- Dewell GA, Simpson CA, Dewell RD, Hyatt DR, Belk KE, Scanga JA, Morley PS, Grandin T, Smith GC, Dargatz DA, Wagner BA, Salman MD. (2008) Risk associated with transportation and lairage on hide contamination with Salmonella enterica in finished beef cattle at slaughter.71(11):2228-32.
- DugasaDirbaba and BelachewHurrissa (2009): Live Animal Transport Services in Ethiopia, current practices and future options, 17th-TP-027-2009.
- FAO (2009). 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.
- FAO (2013).World statistical compendium for raw hides and skins leather and leather footwear
- FAO (Food and Agriculture Organization) (2010).Study of Hide and Skin Collection and Processing. Food and Agriculture Organization of the United Nations Complex, Pulchowk, Nepal; P. 13.
- FAO, 2010.Study of Hide and Skin Collection and Processing. Food and Agriculture Organization of the United Nations UN Complex, Pulchowk, Nepal June 2010.
- Feleke, A. and Amistu, K. (2016).Assessment of the Status of Hides and Skins Production, Opportunities and Constraints in Wolaita Zone, Southern Ethiopia. Food Science and Quality Management, 53:30.
- Girma M. (2003): Opportunities and Challenges of Hides and skins Trade opportunities and Challenges of Livestock Marketing in Ethiopia.
- Gudro, I., Valeika, V. and Sirvaitytė, J. (2014).Shortterm preservation of hide using vacuum: Influence on properties of hide and of processed leather. Plos One, 9(11):e112783.
- Hagos A., Yacob H. and Mulugeta Y. (2013): Impact of sheep and goats ectoparasites on the tanning industry in Tigray region, Ethiop. Veterinary journal.17: 63-76.
- Ian Leach and R. Trevor Wilson (2009): Rural Infrastructure and Agro-Industries Division Food and Agriculture Organization of the United Nations Rome.
- Islam M.S., Miah T.H. and Haque M. (2001): Marketing system of marine fish in Bangladish, Journal of Productivity Improvement Center Agriculture Economics. 24:127-142.
- Juhar T, Teshager D, Getachew T. 2015. Evaluation of hide and skin market chains in and around shashemene town. Scientia Agriculturae, 10 (3), 0000. Retrieved from www.pscipub.com
- Juhar, T., Teshager, D. and Getachew, T. (2015). Evaluation of hide and skin market chains in and around shashemene town. Scientia, 10 (3): 27.
- Kanagaraj, J., Senthilvena, T., Panda, R. and Kavitha, S. (2015). Eco-friendly waste management strategies for greener environment towards sustainable development in leather industry: a comprehensive review. Journal of Cleaner Production, 89: 9-17.
- Kassa B. (1998): Control of sheep and goat skin diseases. Ian B.C and Kassa B. (Eds.). In: Pp. 13-15. Proceedings of Control of Sheep and Goat Skin Diseases for Improved Quality of Hides and Skins, 13-14 February1998,FAO, Addis Ababa, Ethiopia.
- Kassa B. (2005): Pre-slaughter defects of hides/skin and intervention options in east Africa: Harnessing the leather industry to benefit the poor Regional Workshop. Pp.71-84. Proceeding 18 -20April, Addis Ababa, Ethiopia.
- Kassa, B. (2006). Cockle, mange and pox: Major threats to the leather industry in Ethiopia. Perseverance towards value addition. Proceedings of the National leather industry workshop held in Addis Ababa from December 14-15, 2006, Addis Ababa, Ethiopia; Pp. 71-92.
- Kidanu C. (2001): Hide and skin defects, nature and effect on the industry. In. pp: 1 7. Proceedings of the Technical Workshop on Good Practices for the Ethiopian Hides and Skins Industry, 4-7 December 2001, Addis Ababa, Ethiopia.
- Kidanu C. (2001): Hide and skin defects, nature and effect on the industry. In. pp: 1 7. Proceedings of the Technical Workshop on Good Practices for the Ethiopian Hides and Skins Industry, 4-7 December 2001, Addis Ababa, Ethiopia.
- Koloka O. and Morek J. C. (2010): Performance of hides and skins subsector in Botswana: A critical review Livestock Research for Rural Development, 22:150175.
- Kotler P. and Armstrong G. (2003): Principles of Marketing, 10th Edition, Hall of India Private limited, New Delhi, Pp. 5-12.
- Kudit, G., Noor, I., Gasmelseed, G. and Musa, A. (2014).Effect of reused salt and biocide preservation method on some physical

- characteristics of sheep leather. *Journal of Applied and Industrial Sciences*, 1: 51-60.
35. Leach I.B. (1995): Hides and Skins for the tanning industry agricultural service bullet in Rome, Italy.
 36. Liulseged lemma (2011). The performance of Hides and Skins Marketing in Gedeo Zone, Southern Nations, Nationalities and Peoples Regional State, Ethiopia.
 37. Mahmud, A. (2000): Development potential and constraints of hides and skins marketing in Ethiopia, 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, OK pp. 127-138.
 38. Mwinyihija F. and Kerh K. (2010): Hides, Skins and Leather Value addition Initiatives; the Kenyan Scenario Leather and leather product development, division ministry of livestock development, Kenya.
 39. MwinyikioneMwinyihija (2010): Hides, Skins and Leather Value addition Initiatives; the Kenyan Scenario Scenario, Leather and leather Products Development, Division Ministry of Livestock Development, Kenya.
 40. Orlita, A. (2004). Microbial biodeterioration of leather and its control: a review. *International Biodeterioration and Biodegradation*, 53(3): 157 - 163.
 41. Scott J. (1995): Price Products, and People Analyzing Agricultural Markets in Developing Countries, Lynne Rinner Publisher, London .Pp 498.
 42. Selamawit, T. (2015). Assessment of Post Slaughter Hide and Skin Defects and Market Analysis in ArsiNegele and ShashemeneWoredas, West Arsi, Oromia Regional State. MSc Thesis, Addis Ababa University, College of Veterinary Medicine and Agriculture, Department of Animal Production Studies, Bishoftu, Ethiopia; Pp. 18-20.
 43. TeklayAsgedom (2010): Review on factors affecting the quality of raw hides and skins, Addis Ababa – Ethiopia. Manual on hides and skins revised Edition, livestock and meat Board.
 44. TeklayAsgedom (2010): Review on factors affecting the quality of raw hides and skins, Addis Ababa – Ethiopia. Manual on hides and skins revised Edition, livestock and meat Board.
 45. Teklebrhan, T., Urge, M. and Mekasha, Y. (2012). Carcass measurement, Conformation and Composition of Indigenous and Crossbred (Indigenous x Dorper) F1 sheep. *Pakistan Journal of Nutrition*, 11(11):1055-1060.
 46. Thanikaivelan, P., Rao, J., Nair, M. and Ramasami, T. (2004). Progress and recent trends in biotechnology methods for leather processing. *Trends in Biotechnology*, 22: 181-188.
 47. YacobHailu (2013): Skin Defects in Small Ruminates and Their Nature and Economic Importance: The Case of Ethiopia, Department of Pathology and Parasitology, College of Veterinary medicine and Agriculture Addis Ababa University.
 48. Zenaw Z. and Mekonnen A. (2012): Assessment of Major Factors That Cause Skin Defects at Bahir Dar Tannery, Ethiopia, School of Veterinary Medicine. *Advances in Biological Research*, 6:177-181.
 49. Zenaw Z. and Mekonnen A. (2012): Assessment of Major Factors That Cause Skin Defects at Bahir Dar Tannery, Ethiopia, School of Veterinary Medicine. *Advances in Biological Research*, 6:177-181.
 50. Zewdu K. (1998): Marketing of sheep and goat skins in Ethiopia Proceeding of conference. phase II. Ministry of Agriculture, Addis Ababa, Ethiopia and technical comparison program, FAO, Italy, Rome: MOA conference on in service training exercise on hide and skins improvement, Addis Ababa (Ethiopia), 9-12 Feb 1998.