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THE CONTRIBUTION OF HIDES AND SKINS TO THE PASTORALIST ECONOMY IN THE ETHIOPIAN SOMALI REGIONAL STATE: FINDINGS FROM JARRAR AND SHEBELLE ZONES

February 2016



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Agricultural Knowledge, Learning, Documentation
and Policy Project (AKLDP-Ethiopia)

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February 2016

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Revised Research Report

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Disclaimer:

The views expressed in this report do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

Acknowledgments:

This research report is one of a series on policy-relevant research in agriculture, food security, nutrition, and related topics. It is relevant to the Feed the Future Initiative in Ethiopia. The research was made possible by grants from the United States Agency for International Development (USAID) Agriculture Knowledge, Learning, Documentation and Policy (AKLDP) project to support higher education and research institutions in Ethiopia. The research was facilitated by Berhanu Admassu, Feinstein International Center at Tufts University Friedman School of Nutrition Science and Policy. The report was reviewed by James MacGregor, Gothenburg University.

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EXECUTIVE SUMMARY

Pastoralism is a viable, vibrant, and sustainable economic system that underpins the rural economy in East Africa. It accounts for a significant share of the informal and rural economy and contributes inputs critical to the formal economy, particularly milk and meat protein. Yet its economic significance is typically understated and its contribution undervalued (Behnke and Wolford, 2010). This poses challenges for decision-making, policy prioritization, and attracting the investments necessary to ensure that pastoralism persists. This study investigates the importance of pastoralism by examining the economic value of the production of hides and skins in the Somali Regional State of Ethiopia through original research.

The study reveals that the production of hides and skins has limited financial value for pastoralist households and local communities. As such, it is not a focus of rural livelihood strategy in Somali Region. It does, however, have untapped potential but suffers from systemic issues that limit the economic value generation having to do with quality, geography, transportation, scale economics in the local supply chain participants, and access to markets, technology, and information.

We use our survey data to conclude that:

- Somali Region is home to 3.9 million pastoralists in 600,000 households.
- Pastoralists manage a population of over 23 million head of livestock (8.4 million TLUs (Tropical Livestock Units)).
- Using official data, almost 6 million hides and skins could potentially be produced each year.
- Actual figures show that considerably fewer are produced, 1.6 million annually, owing to over-estimated official offtake rates, live sales, and mortality.
- In Somali Region, 450,000 hides and skins are traded each year, just more than one per household on average.
- Ninety-three percent of respondents view hides and skins as an important resource, but mainly for subsistence reasons rather than for commercial ones.
- On average, live sales each year are 11.1 percent of herds, or 2.6 million head of livestock.
- Annual mortality from disease is 12.2 percent, or 2.8 million head of livestock; for religious and market reasons, the hides and skins of these animals are not sold.
- Only 28 percent of respondents admitted to selling hides and skins after slaughter, with most hides and skins being used for subsistence and domestic purposes.
- Each household earns on average 29 ETB (Ethiopian birr)/year (1.38 USD (United States dollars)/year) from hides and skins.
- The potential value for the hides and skins in Somali Region is 7.3 million USD/year, but we estimate that only 27 percent of this value is realized, hinting at potential for value addition.
- The current estimated annual revenue from hides and skins marketing for pastoralist communities in Somali Region is an estimated 11.6 million ETB/0.55 million USD (per pastoralist household, 29 ETB/1.4 USD).
- The potential revenue from unmarketed or unused skins from diseased livestock for pastoralist communities in Somali Region is an estimated 93 million ETB/4.4 million USD (per pastoralist household, 155 ETB/7.4 USD).
- The total current value of hides and skins in Somali Region is 134 million ETB/year or 6.4 million USD/year.

INTRODUCTION

Pastoralism is a viable, vibrant, and sustainable economic system that underpins the rural economy in East Africa and accounts for a significant share of the formal and informal economy at national, regional, and global levels (Davies et al., 2015). Indeed, past research estimated the total annual economic value of pastoralism in Ethiopia at 15 billion ETB (around 1.6 billion USD) (SOS Sahel, 2006). In the formal economy, products from pastoralist systems are significant too, with domestic and export sales of livestock and livestock products accounting for 12–16 percent of national Gross Domestic Product (GDP) and 30–35 percent of national agricultural GDP (REGLAP, 2012).

Ethiopia's pastoralist areas cover 62 percent of its land mass and support 12–15 million people (Shitarek, 2012). By tribe, Somali pastoralists constitute 53 percent of the pastoralist population, followed by the Afar (29 percent) and the Borana (10 percent). The remaining 8 percent are found in Gambella, Benishangul, and Tigray Regions (Desta, 2006).

Yet data on the pastoralist economy in Ethiopia are weak, its significance is typically understated, and its contribution undervalued. Indeed, there are many dimensions of pastoralism that are invisible to standard market-based appraisals (Krätli, 2014) and many more that are only partially glimpsed (MacGregor and Hesse, 2013). To support decision-making, policy development, and the voices of the pastoralist community, we assess the pastoralist economy in Somali Region, using the broad framework developed by the International Institute for Environment and Development (IIED) (Hesse and MacGregor, 2006) to assess its true contribution and look beyond the immediate benefits of livestock and livestock products.

This study contributes to this discussion by focusing on hides and skins solely, as part of a wider program of research on the pastoralist economy that includes other inherent goods and services. It is a precursor to more in-depth research on the full TEV (Total Economic Value).

“Hides and skins from pastoralist herds” refers to both hides from larger animals such as cattle and camels, and skins from smaller animals such as goat and sheep.

Globally, hides and skins are typically a byproduct of the meat processing industry. However, this is complicated in Somalia Region owing to the local ownership of livestock

for subsistence and the lack of official abattoirs for meat processing in pastoralist areas, which drives the need for transportation pre-slaughter to urban centers (Tesfaye et al., 2015).

Ethiopia has a growing leather goods industry, with 21 tanneries that process hides and skins into finished leather. These are further channeled to 850 leather enterprises for manufacturing of leather products (ECA, 2012).

The Government of Ethiopia is committed to expanding the quality and volume of the leather, hide, and skin industry and the export economy, but geography, supply chain management, technology, training, and climate remain considerable barriers (Gonzalez, 1981; Kebede and Fetene, 2012, as cited in MoA, 2013). There are a number of institutions linked with pastoralism, including the Ministry of Agriculture, the Regional Agriculture Bureau, the Regional Cooperative Office, the Trade Ministry, and others.

STUDY METHODOLOGY

Study areas

Somali Region is the second-largest region in Ethiopia and covers 350,000 km². The region has 9 administrative zones, 68 *woredas* (districts), and 786 *kebeles* (wards) (BoFED, 2014). This study covers Jarrar and Shebelle Zones, with a population of 800,000, of which 80 percent live in rural households and can be considered pastoralists. See Figure 1 for a map of the study areas.

The region is divided into two broad rainfall regimes based on the seasons of the year:

- south: receives “*gu*” rains from April to June, and “*deyr*” rains from October to December;
- north: receives “*dirra*” rains from March to May and “*karan*” rains from July to September.

The population can be divided into three livelihood systems (SRS, 2012; ACPA, 2014):

- pastoralism (extensive livestock rearing): 60 percent of the population;
- agro-pastoralism (extensive livestock rearing and rain-fed crop production): 25 percent of the population;

- farming (sedentary and riverine): 15 percent of the population.

Livestock population

According to CSA and WB (2013), Somali Region has about 23 million head of livestock (3.8 million cattle, 8.5 million goats, 9 million sheep, and 2 million camels).

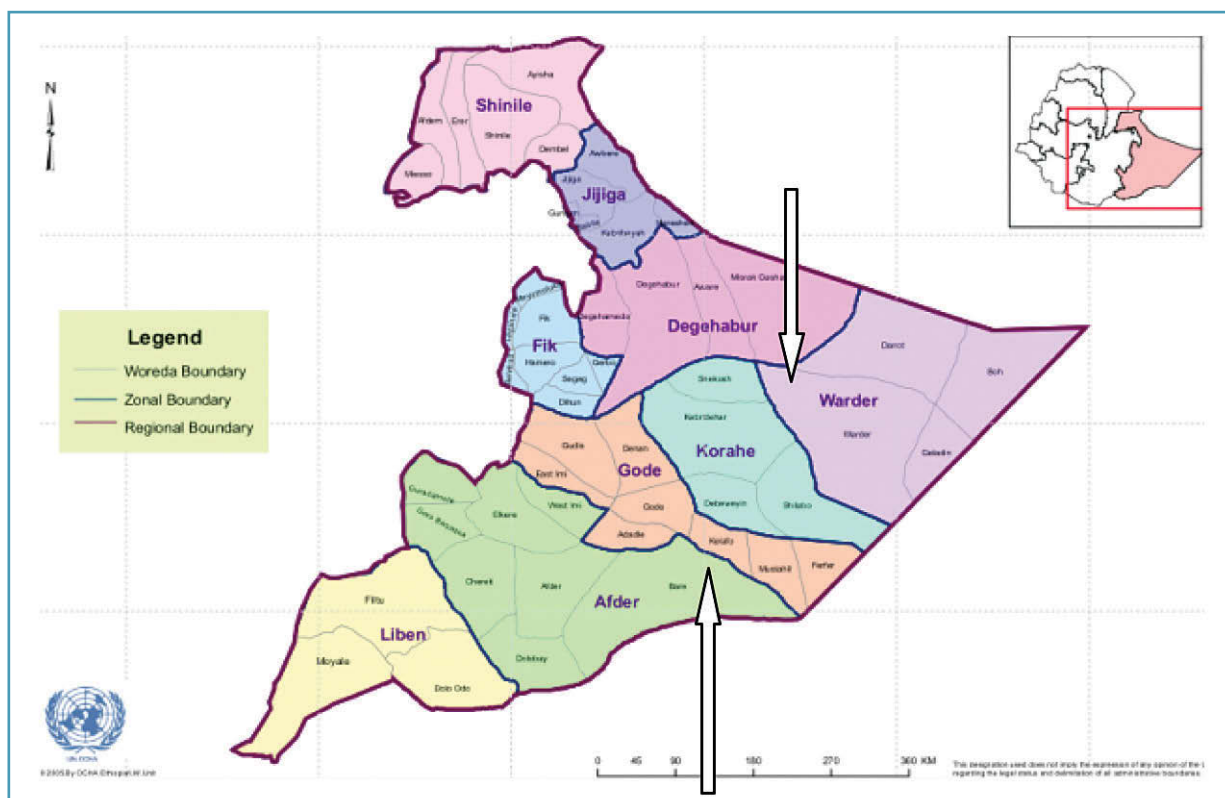
Estimates of volume and value of hides and skins

The offtake rates of 2.7 percent (cattle), 9.6 percent (goats), 7.6 percent (sheep), and 0.4 percent (camels) from our survey in 2015 indicate an estimated 1.2 million hides and skins potential in Somali Region. These data are not routinely collected, however.

Currently, the average price of hides and skins according to official sources is 75 ETB/piece for cattle and camel hides and 22 ETB/piece for goats and sheep skins (Regional Agriculture Bureau, 2015).

There is no indication that hides and skins are the reason for keeping or slaughtering livestock in Somali Region. Indeed, typically households slaughter animals during holidays, wedding ceremonies, funerals, and childbirth for guests and, in the case of inter-clan conflict, mediation.

Figure 1. Map of the study areas, Somali Region.



Source: Wikipedia (2015).

Sampling technique

The study uses a multi-stage sampling procedure involving a combination of purposive and random sampling. In the first step, purposively three *woredas* from each of the two zones (Shebelle and Jarrar) were selected: Adadile, Gode, and Danan *woredas* in Shebelle Zone; and Degahabur, Birkod, and Ararso *woredas* in Jarrar Zone. These two zones are pure pastoralist areas, and for this survey these *woredas* were both accessible and secure.

In the second stage, we applied multi-stage area sampling to these six *woredas* to select nineteen representative villages. Lastly, households were chosen by simple random sampling using a list of households. Our sample size is based on the following formula:

$$n = \frac{z^2 (1-p)p}{e^2}$$

where z is the desired degree of confidence, p is an estimate of the population proportion, and e is the absolute size of the error in estimating p that the researcher is willing to permit. Thus, instead of using a pastoralist population proportion of 60 percent or 85 percent we use 50 percent and a 95 percent confidence interval; i.e., $z = 1.96$ and an 0.05 error size were used to obtain a maximum sample size of 384. Accounting for 10 percent non-response, a sample size of 420 households was calculated. Table 1 provides evidence of the random sampling of households by *woreda*.

Data collection and tools

Collection of secondary data was started in the first week of August 2015, while the survey was conducted between August 27 and September 25, 2015. See Annex for Survey Questionnaires.

Additional data on the quantity of hides and skins supplied by households in the study areas, prices of hides and skins, and market information were collected from key informants, including heads of cooperatives, extension experts, and *Gudomiyes*. See Annex for Interview Guide for Key Informant Interviews. Secondary data were collected from the Ministry of Trade Hides and Skins Division, Common Market for Eastern and Southern Africa (COMESA), regional offices of the Bureau of Finance and Economic Development (BoFED), and the Regional Agriculture Bureau.

Limits to research methodology

The scope of the research was narrow and limited to hide and skin production and its value to producers' economies. We did not focus on the entire supply chain from production through processing to end consumption. Clearly such a focus would have been helpful to reveal the total economic contribution of both pastoralism and hides and skins, but its complexity, breadth, and geography are too broad for this initial study. Assessment of production volume and values in the Somali Region has relied on the representativeness of our sample, which provided robust data. A larger sample would be beneficial, owing to the differences among communities across the landscape.

Table 1. Sample selection from the six *woredas* for survey, $n = 420$

Jarrar Zone	Kebeles (wards)	#Household	Shebelle Zone	Kebeles (wards)	#Household	
Degahabur <i>woreda</i>	Cagasur	21	Adadile <i>woreda</i>	Adadile	10	
	Obale	10		Ilan	21	
	Sasamen	31		Hagere	29	
	Birkod <i>woreda</i>	Sandrixil	10	Gode <i>woreda</i>	Yahas Jable	31
		Hodale	32		Kunsen	13
		Grawo	20		Hadawe	26
		Daka Bahar	15		Hodidole	12
Ararso <i>woreda</i>	Magalaad	30	Danan <i>woreda</i>	DemberWeyne	19	
				Lamy	11	
				Cawoly	30	
Total		218			202	

Data analysis

Primary data were collected via survey interviews with members of pastoralist households in the region. Agricultural extension experts were also interviewed. Secondary data were collected from various federal and regional bureaus. Multi-stage sampling involving a combination of purposive and random sampling techniques was used to select a sample from the population. Simple descriptive statistics were used to analyze the data.

The data collected were used to generate simple descriptive statistics that were then analyzed. Simple descriptive statistics is a method of presenting summarized information that enables the researchers to describe households based on characteristics and to present the results of the study in the form of frequencies, tables, graphs, and measures of central tendencies. The data were analyzed using standard software (STATA, version 13).

RESULTS

Household characteristics

Households in our study are 12 percent larger at 7.3 persons than the official regional average of 6.5 persons (BoFED, 2014). In the sample of 414 household head respondents, 58 percent were female, the average age was 40, and 84 percent had no education at all. See Table 2 for details.

Hides and skins profile

Almost one-third of the herds managed by respondents in our sample change each year owing to sales (11 percent), slaughter (7 percent), or mortality (13 percent). See Table 3. One-fifth of the herds produce a hide or skin that in theory can be traded.

Only 28 percent of respondents admitted to selling hides and skins after slaughter. Despite the high death rate from disease of livestock reported in the survey, the respondents reported that religious reasons prevent them from using the hides and skins of these animals. Furthermore, key informants indicated that the hides and skins from non-slaughtered animals are considered unclean and a waste material. Yet cultural norms change, such as a recent

change to the culture around livestock use, allowing slaughtering of animals during pregnancy—at the seventh and ninth months.

Assuming our sample is representative for Somali Region, Table 4 illustrates the potential value across the region for hides and skins. We find an economy value of 41.3 million ETB/year (2 million USD/year). We estimate that the current revenue realization from this trade is 8 percent of the potential, at 845,000 USD/year, or 17.75 million ETB/year.

Supply chain for hides and skins

The hides and skins supply chain involves several economic activities, including collecting, processing, transporting, quality checking, storing, and tanning. Industry participants include producers, rural agents, private collectors, cooperatives, traditional processors, middlemen, and tanneries.

In Somali Region, there are two types of end markets—local and regional (see Figure 2). Local supply chains, pastoralist households and small abattoirs in Gode and

Table 3. Livestock mortality, trade, and slaughter, survey data, n = 414

Species	Total livestock	Live animal sales	Sales %	Slaughter	Slaughter %	Disease	Disease %
Cattle	2,814	257	9%	77	2.7	302	10.7
Goat	10,279	1,414	14%	989	9.6	1,752	17
Sheep	7,944	808	10%	600	7.5	1,033	13
Camel	2,007	83	4%	10	0.4	62	3
Total	23,044	2,562	11%	1,676	7.2%	3,149	13%

Table 4. Values of hides and skins (H&S) economy, Somali Region (SR)

Species	SR herd size	% slaughter	H&S/ year	Value/ ETB	Value/ USD	H&S diseased	Value/ ETB	Value/ USD
Cattle	3,796,000	2.7	102,492	7,686,900	366,043	406,172	30,462,900	1,450,614
Goat	8,547,000	9.6	820,512	18,051,264	859,584	1,452,990	31,965,780	1,522,180
Sheep	9,053,000	7.5	678,975	14,937,450	711,307	1,176,890	25,891,580	1,232,932
Camel	2,032,000	0.4	8,128	609,600	29,029	60,960	4,572,000	217,714
Total	23,428,000	7.2	1,610,107	41,285,214	1,965,963	3,097,012	92,892,260	4,423,441
Per household				68.81	3.28		154.82	7.37

Table 2. Household characteristics of respondents in the study areas, n = 414

Woredas	Households		Gender of respondents		Age of respondents				Education of respondents				Household size	
	Number		Male	Female	Mean	Std. Dev.	Min.	Max.	Basic	Primary	Secondary	Tertiary	None at all	Mean
Adadile	56		33 (59)	23 (41)	41.8	10.8	17	70	2 (3.5)	8 (14.2)	2 (3.5)	-	44 (78.5)	8.1
Ararso	30		9 (30)	21 (70)	37.6	8.4	22	63	-	6 (20)	-	-	24 (80.0)	6.7
Birkod	49		16 (32)	33 (67)	40.3	12.2	25	70	-	8 (16.3)	-	1 (2.0)	40 (81.6)	7.3
Degahabur	139		55 (40)	84 (60)	39.3	11.7	20	78	-	16 (11.5)	1 (0.7)	-	122 (87.7)	7.1
Danan	58		21 (36)	37 (64)	42.1	13.0	25	75	-	3 (5.1)	1 (1.7)	-	54 (93.1)	7.6
Gode	82		40 (49)	42 (51)	39.7	10.9	20	73	2 (2.4)	13 (15.8)	4 (4.8)	-	63 (76.8)	7.3
Total	414		174 (42)	240 (58)	40.1				(1)	(13)	(2)	(0.2)	(84)	7.3

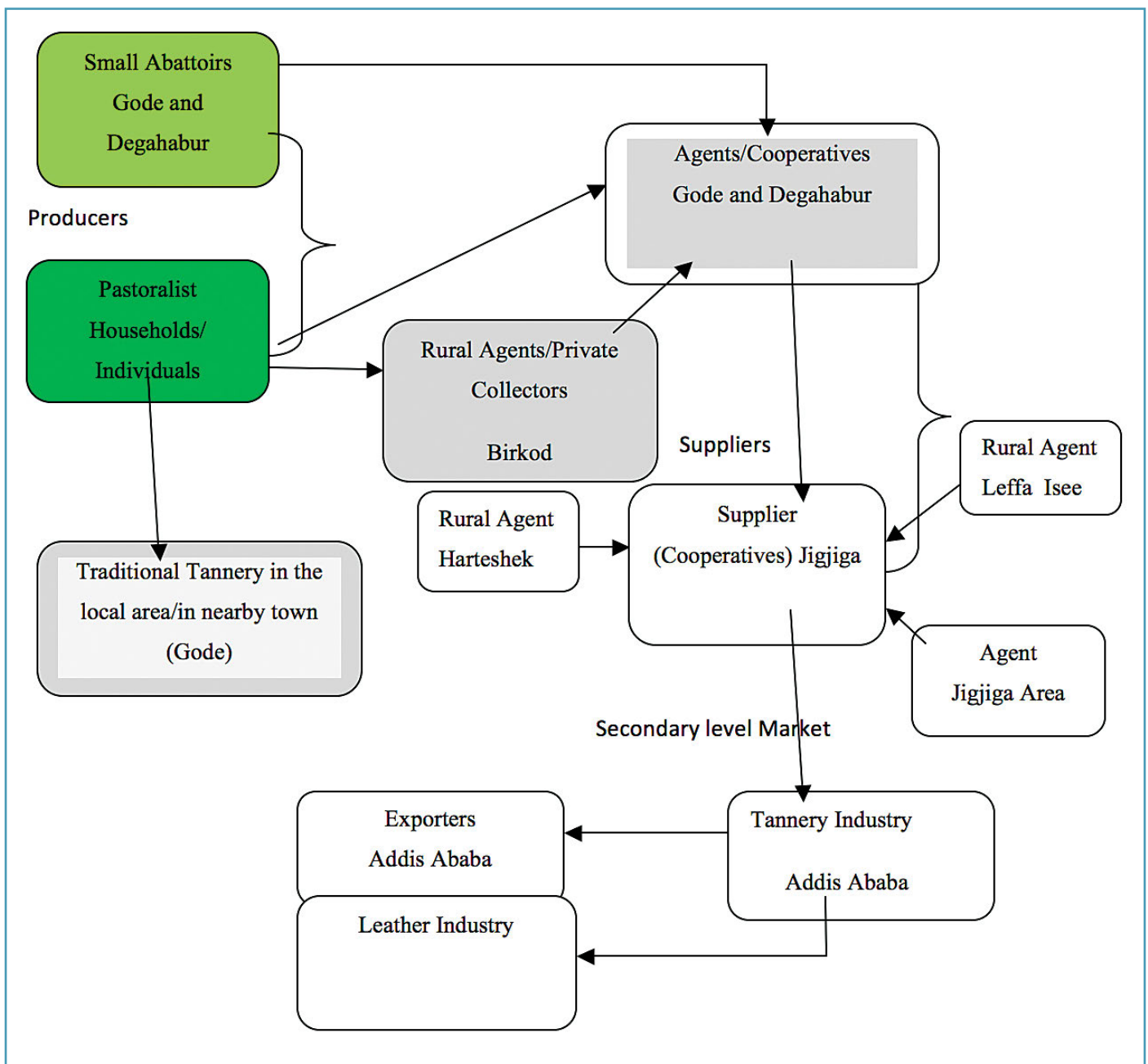
Note: Numbers in parentheses are percentages of respondents for each characteristic.

Degahabur, produce and sell raw hides and skins to the private collectors, rural agents, or the cooperatives. Similarly, pastoralist households around Adadile supply raw hides and skins to traditional tanneries that produce products like gemberka (traditional stools covered in leather).

For pastoralists seeking to sell outside of Somali Region, it appears to be a buyer's market, albeit one with few buyers

and limited market routes for pastoralists. According to key informants, the price of hides and skins paid to pastoralists is determined by the few buyers, who supply the hides and skins to cooperatives in Degahabur. These cooperatives treat the hides and skins with salt and supply them to the Al-Hubi Hide and Skin Cooperative in Jigjiga. Al-Hubi is a hub for hides and skins from surrounding pastoralist areas. Finally, these collated hides and skins are supplied to the Addis Ababa Tannery.

Figure 2. Hides and skins market chain.



Our survey found that only 28 percent of households in the study areas sold hides and skins after slaughter. Our survey reveals that pastoralists earn substantially more income from milk sales compared to sales of hides and skins in the study areas. Key informants in several districts report that, after slaughtering, pastoralists rarely bring the hides and skins of animals to the market. Instead, the household uses hides and skins for domestic purposes. They use hides and skins at home for making mats, bed mats, prayer mats, seat covers, and milk containers, and they use them in their huts for other purposes.

However, the perceptions of the respondents show that 93 percent consider hides and skins a very important resource, while only 7 percent consider them a waste material.

Due to the noncommercial nature of much of the hides and skins production, not much has been done by the federal and regional Government to promote the sector in the region or within the study areas in particular.

Challenges in hides and skins

Our survey indicates that the main challenges are lack of marketing opportunities, buyers, transportation, and market information. These challenges have far-reaching implications. Poor transportation means higher inventory levels for sellers, over long periods, which exposes the hides and skins to insects and results in their degradation. Poor flows of market information mean reliance on word-of-mouth information.

Buyers have indicated that the traditional method of branding animals with a red hot iron risks reducing the quality of hides and skins in the study areas.

Employment in the hides and skins sector

Employment in the hides and skins supply chain includes pastoralist households, abattoirs, middlemen, marketers, and cooperatives. For example, 148 jobs exist in cooperatives throughout Somali Region (see Table 5).

Table 5. Number of officially registered cooperatives in Somali Region

Zone	Number of cooperatives	Male	Female	Total members
Jarrar	3	23	54	77
City	1	7	7	14
Afdem	1	2	14	16
Fafan	2	16	25	41
Shebelle	0	-	-	-
Total	7	48	100	148

Source: Somali Region Micro and Small Enterprise Development Agency (2015).

RECOMMENDATIONS

Despite the potential in the region, the supplies of hides and skins by pastoralist households to the market are limited. This is due to the lack of a proper market for hides and skins in the study areas, a lack of transportation, and the limited access to market information for pastoralist households.

The study areas have some potential for enhanced quality and quantity of hides and skins production. Our findings suggest that previous assessments have underestimated the current value of hides and skins and overestimated the potential value. Indeed, for the full value of hides and skins to be recognized, and the range of benefits and support provided by pastoralism to be comprehended, we recommend that the research projects be expanded.

The following measures should be taken by the concerned bodies:

- Establish adequate commercial channels to purchase hides and skins produced at a household level and create strong linkages to the rest of the economy.
- Improve hides and skins operations at slaughter facilities in the large and small towns, create awareness, and promote the use of these facilities.
- Conduct awareness campaigns and training of the pastoralist households about the appropriate production methods and market for this resource.
- Work with the private sector to develop opportunities to invest in the hides, skins, and leather industries in rural Ethiopia.
- Investigate mechanisms to use the hides and skins of dead animals in the region.

To channel investments into pastoralism, supporting institutions need to play a greater role in the hides and skins supply chain and work more closely with pastoralist households and other market participants to realize the hides and skins resources in the region. Pastoralist households require better linkages to the central market. However, they lack coordination, and there is poor exchange of information between stakeholders vital in decision-making about the sector at both national and regional level.

CONCLUSIONS

The study areas have some potential to better market hides and skins in order to support pastoralist livelihoods. However, it is clear that a number of significant barriers exist in terms of: transportation, incentives for private buyers to travel to pastoralist areas, market information, and missing elements of the supply chain (abattoirs, processors). A master plan for rural areas of Ethiopia should consider attracting value-adding industries in order to enhance and develop this supply chain. While it is unlikely to supplant the milk sector in terms of value, it will nonetheless offer new economic opportunities.

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ANNEX

Survey Questionnaires

The purpose of this survey is to gather information on the livestock byproducts of milk and hides and skins in Ethiopia's Somali Regional State. The survey is used for research entitled "Total Economic Value of Pastoralism in Somali Regional State." The results from this survey will help the Government (both regional and federal) in developing policies that best serve the interests of livestock producers, traders, and consumers. The answers you give to the following questions will be kept confidential.

Only for Supervisor:

Staff	Name	Signature	Date		
			DD	MM	YY
Enumerator					
Supervisor					

Response status: Completed1

Questionnaire's status	Code
_____	_____

Partially completed2

Not at all3

Refused4

Section I: Household General Information

1. Name of the household head _____

2. Zone of household _____

3. *Woreda* of household _____

4. *Kebele* of household _____

5. Sex of the household head

1. Male 2. Female

6. Age of household head _____ (years)

7. What is education level of the household head?

1. Basic education 2. Primary level 3. Secondary level
4. Tertiary level 5. None at all

8. Household Size

1. Male _____
2. Female _____
3. Total _____

Section II. Livestock Population and Ownership

Code	Livestock type	1			2			3			4
		What is the grand total of livestock owned by household?			How many livestock for milk are owned by the holder?			How many livestock for meat are owned by the holder?			How many livestock that have given milk for the last 12 months are owned by the holder?
		Total	Male	Female	Total	Total	Male	Female	Total		
1	Cattle										
2	Goat										
3	Sheep										
4	Camel										

Code	Livestock	5			6			7			8
		How many livestock were slaughtered in the last 12 months?			What is the average number of months during which livestock are actually milked?			What is the average lactation period of livestock in months?			What is the quantity of milk produced per day per livestock in liters?
		Total	Male	Female	Months	Months	Months	Liters			
1	Cattle										
2	Goat										
3	Sheep										
4	Camel										

Code	Livestock	9			10			11			12
		What is the number of livestock that died from disease during the last 12 months?			What is the number of livestock that died for other reasons during the last 12 months?			What is the amount of livestock sales during last 12 months?			What was the total amount of money (in birr) obtained from sales of livestock during the last 12 months?
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Cattle										
2	Goat										
3	Sheep										
4	Camel										

		15				
Code	Livestock	For what purposes are you rearing livestock? (Use 'X' mark)				
		1. Sales of live animals	2. Livestocks products	3. Social value	4. Savings purposes	5. Other (specify) _____
1	Cattle					
2	Goat					
3	Sheep					
4	Camel					

13. How do you identify your animals from others' animals?

1. Brand marks using red hot iron 2. Modern branding techniques like ear notching
3. Using paint 4. Other (specify) _____

14. What are the major livestock production problems in your area

1. Feed shortage 2. Water shortage 3. Disease outbreak 4. Market
5. Other (specify) _____

Section III: Production and Consumption of Milk by Household

1. What is/are sources of food for your family? (Rank in the order of importance.)

1. Milk _____
2. Meat _____
3. Grain _____
4. Others specify _____

2. What is the source of income for the household? (Rank in the order of importance.)

1. Milk _____ 2. Meat _____
3. Hides and skins _____ 4. Milk byproducts _____
5. Live animal sales _____

3. Do you think that your family's life depends on livestock milk?

1. Yes 2. No

4. Is milk production is the same in all seasons?

1. Yes 2. No

5. If your answer in Q4 is "No," how much milk are you producing per day in wet season? (in liters)

1. Cattle milk per cow/day _____ 2. Camel milk per camel/day _____
3. Sheep milk per sheep/day _____ 4. Goat milk per goat/day _____

6. How much milk are you producing in dry season? (in liters)

1. Cattle milk per cow/day _____ 2. Camel milk per camel/day _____
3. Sheep milk per sheep/day _____ 4. Goat milk per goat/day _____

7. How much milk have you used for home consumption?

1. Cattle milk per individual/day _____ 2. Camel milk per individual/day _____
3. Sheep milk per individual/day _____ 4. Goat milk per individual/day _____

8. Do you purchase milk for household consumption?

1. Yes 2. No

9. If your answer is “Yes” to Q8, how much do you purchase?

1. Cattle milk per day _____ 2. Camel milk per day _____
 3. Sheep milk per day _____ 4. Goat milk per day _____

10. Out of total milk production, how much of milk is for sale?

1. Cattle milk per day _____ 2. Camel milk per day _____
 3. Sheep milk per day _____ 4. Goat milk per day _____

		11		
Code	Livestock	For what purposes do you use milk other than consumption and sales, if any remains? Give amounts in liters.		
		1 Social gifts	2. Wage in kind	3. Other (specify)_____
1	Cattle			
2	Goat			
3	Sheep			
4	Camel			

12. Do you process the milk at your home?

1. Yes 2. No

13. If the answer to Q12 is “Yes,” how many minutes do you spend in milk processing?

1. Minutes per cattle milking _____ 2. Minutes per camel milking _____
 3. Minutes per sheep milking _____ 4. Minutes per goat milking _____

14. Who is engaged in milking and related activities?

1. Men 2. Women 3. Children

15. How many minutes spent per livestock per milking?

1. Minutes per cattle milking _____ 2. Minutes per camel milking _____
 3. Minutes per sheep milking _____ 4. Minutes per goat milking _____

16. Do you employ any labor for milking activities?

1. Yes 2. No

17. If the answer to Q16 is “Yes,” how many laborers have you employed for these activities?

Specify_____

18. How much do you pay for the labor as wage? If any, specify_____

19. Do you have accessible animal extension services in your area?

1. Yes 2. No

20. What are the major constraints to milk production? Rank them.

1. Water _____ 2. Fodder _____
 3. Marketing _____ 4. Shortage of rangeland _____
 5. Veterinary services _____ 6. Other (specify) _____

IV: Market and Marketing of Milk

1. Do you sell milk and milk products?
 1. Yes
 2. No

2. Where do you sell livestock milk? _____

3. To whom do you sell livestock milk?

1. Directly to consumers _____	2. Local market traders _____
3. Cooperatives _____	4. Main market traders _____
5. Exporters _____	6. Private collectors _____
7. Other _____	

4. What is the selling price in the market during the wet season? (in birr)

1. Cattle milk/liter _____	2. Camel milk/liter _____
3. Sheep milk/liter _____	4. Goat milk/liter _____

5. What is the selling price in the market during dry season? (in birr)

1. Cattle milk/liter _____	2. Camel milk/liter _____
3. Sheep milk/liter _____	4. Goat milk/liter _____

6. For what purpose do you use the money you earn from milk sales?

1. _____	2. _____
3. _____	4. _____

7. How long a distance do you travel to sell milk in a day?
 1. Less than 5 km
 2. 5–10 km
 3. More than 10 km

8. How many minutes do you spend on milk-selling activities? _____

9. Who among your household members is engaged in selling milk?
 1. Men
 2. Women
 3. Children

10. Do you think that the amount of milk that you produce per day is enough for selling?
 1. Yes
 2. No

11. If the answer in Q10 is “No,” what are the main reasons for the answer? Rank them.

1. Low herd size _____	2. Poor management _____
3. Low market price _____	4. Less interest in selling milk _____
5. Lack of access to market for milk _____	

12. In your opinion, what should be done to improve livestock milk in your area?

13. What are the main milk marketing problems in your areas? (Rank in order.)

1. Price fluctuation _____	2. Lack of accessible market _____
3. Lack of market information _____	4. Lack of storage facility _____

V: Marketing of Hides and Skins

1. Do you sell hides and skins?

1. Yes 2. No

2. For what purpose you use hides/skins?

1. Household use 2. Sales 3. Gifts in kind
4. Wages in kind 5. Other _____

3. If for sale, to whom do you sell hides and skins?

1. To private collectors 2. To cooperatives
3. To local craftsmen 4. Other _____

4. If your answer to Q2 is for sales, what is the price per piece?

1. Hide of cattle price/piece _____ 2. Hide of camel price/piece _____
3. Skin of sheep price/piece _____ 4. Skin of goat price/piece _____

5. Do you get hides/skins marketing information in your area?

1. Yes 2. No

6. If your answer to Q5 is "Yes," what is the source of information?

1. Extension workers 2. From friends
3. Media 4. Other _____

7. What are the major constraints in the hides and skins market? Rank them.

1. Price fluctuation _____ 2. Lack of transportation facilities _____
3. Lack of market _____ 4. Lack of market information _____
5. Lack of facilities _____

8. Do you treat the hides and skins before you sell them?

1. Yes 2. No

9. How do you see the hides, and skins' value to your household?

1. Important _____ 2. Waste material _____

Thank You for cooperation!!!

ANNEX 2

Interview Guide for Key Informant Interviews

The enumerator/facilitator starts by recording the venue and date of meeting, the identity of the group (e.g., village/chief's name under which the group falls, suburb, etc.). He/she then asks questions to enable the informant to engage in discussion on the following themes:

Introduction: Thank you for your willingness to take part in this interview. The purpose is to explore in depth the perceptions regarding the importance of milk and hides and skins in this area.

1. What is the role of milk to your family?

Probes

- Who do you think is doing milking activities?

2. How do you manage milk production?

Probes

- How do you see the seasonal variation of milk production?

3. How do you manage milk consumption?

Probes

- Who consumes more in the household? Which type?
- What factors affect milk consumption at home?

4. How do you see the importance of hides and skins to households in this community?

5. For what purpose does the community use hides and skins?

Probes

- Where do you sell it?
- To whom do you sell it?

6. What are the major challenges to the hides and skins sector?

7. Let's summarize some of the key points from our discussion.

8. Is there anything else?

9. Do you have any questions?

Thank you for taking the time to talk to us!!

