

CHALLENGES AND OPPORTUNITIES IN THE HIDES AND SKINS SECTOR FOR IMPROVING LIVELIHOODS IN GARISSA SUB-COUNTY, KENYA

By

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Abstract

Garissa subcounty is located in an Arid and Semi-Arid Land (ASAL) region with a large livestock population, that produces a huge number of hides and skins. This study investigated the challenges and opportunities in the hides and skins sector within the subcounty to inform the interventions for quality improvement and economic empowerment of the pastoral communities. The study employed a descriptive research design, utilizing observation, field surveys and the delphi methods. Data was obtained from flayers, livestock owners and hides and skins traders. Qualitative data was analyzed using content analysis, while descriptive statistics were used for quantitative data. Data was collected from 62 respondents, consisting of 50 flayers, 8 livestock owners and 4 hides and skins traders. Key findings reveal a predominantly male-dominated occupation, with a significant portion of stakeholders possessing low formal education and relying acquisition of skills through apprenticeship. Key challenges identified include the poor quality of hides and skins resulting from inadequate flaying skills and the use of inappropriate tools since the primary focus is on meat production. Other challenges include delayed payments, harsh climatic conditions affecting preservation, poor handling of hides and skins, inadequate facilities and negative perceptions on hides and skins from northeastern parts of Kenya by tanneries. The inadequate market for hides and skins caused them to be discarded since they were perceived as having zero value. Despite these challenges, the sector offers significant opportunities which include the restoration of traditional knowledge on hides and skins for cultural preservation and value addition, the creation of job opportunities for youth and women across the value chain and the local production of affordable leather products like sandals, belts, and bags. The report concludes that despite government initiatives to revitalize the national leather sector, Garissa subcounty's hides and skins industry is declining. The current underperformance of the sector represents a missed economic opportunity for the community, highlighting the need for targeted interventions to improve quality, market access, and value chain development.

Key words: *Hides, Skins, Garissa Sub-county, Livelihoods, Pastoralism*

1. Introduction

In recent years, there has been a noticeable upward trend in the number of livestock being slaughtered in Kenya, with a significant portion originating from the Arid and Semi-Arid Land (ASAL) counties. In a study conducted by Kirui and Karugia (2019), it was observed that there was a notable increase in the number of cattle slaughtered from 2,590,000 in 2017 to 2,781,700 in 2018. These statistics provide valuable insights into the changing dynamics of livestock production and highlight the potential implications for various stakeholders in the agricultural industry. The production of hides and skins in the country is significant, contributing to approximately 4% of the agricultural GDP (Kirui & Karugia, 2019).

In recent years, an increasing trend in livestock slaughter, particularly from Arid and Semi-Arid Land (ASAL) counties has been recorded. For instance, cattle slaughter increased from 2.6 million in 2017 to 2.8 million in 2018 while goats slaughter rose from 9.2 million to 10.2 million during the same period (Kirui & Karugia, 2019). The Fourth Medium Term Plan (MTP-IV) 2023-2027 of the government of Kenya has outlined a strategy to transform the leather sector in order to increase its economic contribution. This is aimed at boosting the annual income from the leather sector from KSh 15 billion to KSh 120 billion and increase job opportunities through raising annual footwear production from 8 million to 36 million pairs within three years (The National Treasury and Economic Planning, State Department for Economic Planning, 2024). The leather sector has, therefore, been identified as a vital source of income and employment especially in rural where most livestock are reared and slaughtered at household levels (Onyoni & Basil, 2023). Central to this, the government focuses on enhance leather value chain from exporting raw and semi-processed materials to manufacturing of finished leather and leather products. As a result, efforts are geared toward developing local capacity for handling hides and skins to ensure quality raw materials for local manufacturing of finished leather goods like shoes, bags, and belts. However, despite this potential, the leather sector in Kenya has been decreasing gradually across the entire value chain ((Onyoni & Basil, 2023).

Garissa County, like all other ASAL counties in Kenya has high number of livestock population and thus produces large number of hides and skins. Nearly nine million livestock herds exist in the County (**KNBS**, 2019). Hides are obtained from camels and cattle, while skins come from shoats. A review of the 2018-2022 County Integrated Development Plans (CIDPs) shows that Garissa County produced a total of 190,300 cattle hides and 270,000 shoat skins (Onyango, Musyoka, Shibia & Laibuni, 2019). These are crucial raw materials for the leather industry. In 2022, for instance, the number of hides and skins produced was 17,612 and 110,271 respectively (Garissa County Annual Performance Report 2022/23, 2023). These hides and skins originate from homestead slaughter, rural slaughter slabs and urban slaughterhouses. Like in other parts of the country, the primary focus is meat production rather than leather and therefore less care is given to the quality of hides and skins leading to dwindling of the leather sector. Therefore, despite the thousands of livestock being slaughtered in Garissa County, the hides and skins sub-sector is underperforming due to low commodity demand and poor quality, failing to create job opportunities. Most of the hides and skins harvested in the county have defects emanating from poor handling during pre, during and post slaughter levels hence falling below premier grades. To

leverage the county's hides and skins potential, the study sought to find out the challenges and opportunities in the hides and skins sector in the sub-county.

Objective of the Study

The research aimed to assess the current state of hides and skins and evaluate the potential and the challenges facing the hides and skins business in Garissa Sub-County. Through identification of key issues, the research gathered essential data that inform targeted interventions that minimize hides and skins wastage as well as providing actionable strategies by which the economic benefits for local households will be enhanced.

Study Area

The study was conducted in Garissa Sub-County, which is part of Garissa County, located in northeastern Kenya. The sub county lies in the Arid and Semi-Arid Land (ASAL) region where the main source of livelihood is livestock keeping with 95% of the population practicing nomadic pastoralism and agro-pastoralism. The county has a population of about 9 million livestock which largely include cattle, shoats, donkeys and camels.

Methodology

Data was collected from 62 respondents consisting of constating of 50 flayers and slaughterhouse operators, 8 livestock owners and 4 hides and skins traders. The flayers and slaughterhouse operators were randomly sampled from a pool of 60 flayers. The livestock owners, who traded with livestock were sampled through convenience sampling since they were not easily accessible due to frequent movements while the hides and skin traders were selected through snowball sampling. Three approaches were used for data collection were observation, field survey and delphi methods. Observational visits were conducted to Garissa Town slaughterhouse where most of the hides and skins were produced and traded and the primary concentration flaying activities. Flaying practices and post-slaughter handling of hides and skins were observed. A field survey was conducted among livestock traders, flayers, slaughter operators and hides and skins traders within Garissa Sub-County. Due to the low literacy level among the targeted respondents, data was collected using structured interviews. This was supplemented with Focus Group Discussions (FGDs). Delphi approach, which involves gathering opinions from experts was used to collect information from seasoned flayers, hides and skins traders, slaughterhouse operators and livestock owners. Through this approach, the various actors in hides and skins value chain were engaged in productive conversations to achieve consensus on the challenges and opportunities in the sector.

Content analysis was instrumental in analyzing qualitative data obtained through interviews, focus groups discussions. Data was put into themes to derive meaning with regards to hides and skins

challenges and opportunities. Descriptive statistics were used in analyzing baseline survey data pertaining to the types of tools used in flaying, slaughtering and flaying processes, handling, curing, storage and grading of hides and skins.

Results and Discussion

Demographic characteristics

Flaying and slaughterhouse operations in Garissa sub county are male-dominated occupations influenced by cultural norms and physical demands. While livestock ownership (livestock business) was also male-dominated (94.1%), women also engaged in the business. Similarly, women also engaged in hides and skins trade, accounting for half of the traders. The majority (%) of people across the hides and skins value chain were aged between 36 and 55 years. This age group comprised 88% of flayers, 76% of livestock owners and 83% of traders. There was less youth engagement in the sector with less than 20% of participants being aged between 18 and 35 years. Due to physical demanding nature of these hides and skins value chain activities, no flayers, slaughterhouse operators or livestock owners were older than 55 (Table 1).

Table 1: Demographic characteristics of actors in hides and skins value chain in Garissa Subcounty

Attributes		<u>Hides and skins value chain actors</u>		
		Flayers	Livestock owners	H&S Traders
Gender	Male	100.0%	94.1%	50.0%
	Female	0.0%	5.9%	50.0%
Age	18-35	11.0%	17.0%	16.0%
	36-55	88.0%	76.0%	83.0%
	56 and over	0.0%	0.0	
Education Level	No formal and informal education	20.9%	35.3%	16.7%
	Quran/ informal religious education	50.0%	35.2%	16.6%
	Formal religious education (Madarasa)- Primary	8.3%	5.9%	16.7%
	Primary education	8.3%	11.8%	33.3%
	Secondary education	0.0%	11.8%	16.7%
	Vocational/ technical training	8.3%	0.0	0.0
	Degree and above	4.2%	0.0	0.0
Employment Status	Employment	36.0%	58.8%	16.7%
	Self employed	64.0%	41.2%	83.3%

Actors in the hides and skins value chain in the sub county had little or no formal education. About 50% of the flayers and 35.2% of the livestock owners had Quranic or informal religious education, with less than a 15% having formal education. Of the 50% of the traders who had formal education, 33.3% had primary and 16.7% secondary education. This signifies that most hides and skins players had low level of formal education despite considerable experience in the sector. Employment among the flayers was largely (64%) self-employment working on contractual basis with daily wages. Flayers joined the workforce through apprenticeship. Among the people who purchased livestock for resale to butchers (livestock owners), 58.8% were employed and 41.2% self-employed. About 83.3% of the hides and akin traders were self-employed, with only 16.7% employed.

Hides and Skins Production

Hides and skins produced are directly linked to the daily number of livestock slaughtered at household, slaughter slabs and slaughterhouses. Nearly 80% of the hides and skins produced in the subcounty were from Garissa Town slaughterhouse and other slaughter slabs and about 20% being produced at household levels. Livestock slaughtered at the slaughterhouse were owned by livestock traders making them key actors in the hides and skins value chain. Livestock slaughtered at the slaughter slabs were majorly owned by butchers and a few by households. Shoats were the most frequently slaughtered animals at the household level averaging at 20 livestock annually per household. Camels were only slaughtered during cultural occasions averaging at 2 per household annually. While large volumes of hides and skins are produced at Garissa Town slaughterhouse, a significant amount is produced in rural areas at slaughter slabs and households.

Hides and skins at the slaughterhouse were sold to traders by the flayers and butchers. Sales by the flayers accounted for 67.5% and butchers 29.5% (Figure 1). However, a significant number of flayers and butchers (40%) did not preserve the hides and skins leading to spoilage and wastage. Approximately 52% of the flayers and butchers used industrial salt for preservation, which is recommended and 8% relied on the sun drying method. It was the traders who provided the industrial salt s to the flayers and butchers. Although the traders preserved using salting method, still 22% used sun drying which is not recommended since it causes fibers to contract making the hide or skin hard, brittle, and less flexible for tanning (Mwundu, 2017). Sun drying was common when there was no known market for hides and skins. The use of salt reflected a more commercial approach towards ensuring quality and longevity of the hides and skins.

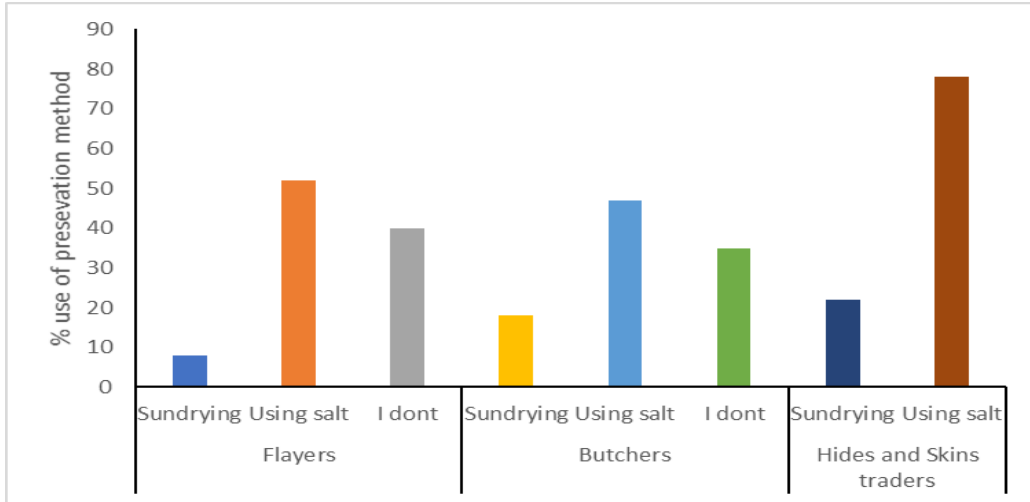


Figure 1: Preservation methods at the Garissa town slaughterhouse

Despite the efforts to promote hides and skins business by traders, the business was performing poorly with only 5% being sold for commercial purposes (Figure 2). The remainder was disposed off, making the community perceive hides and skin to be of zero value.

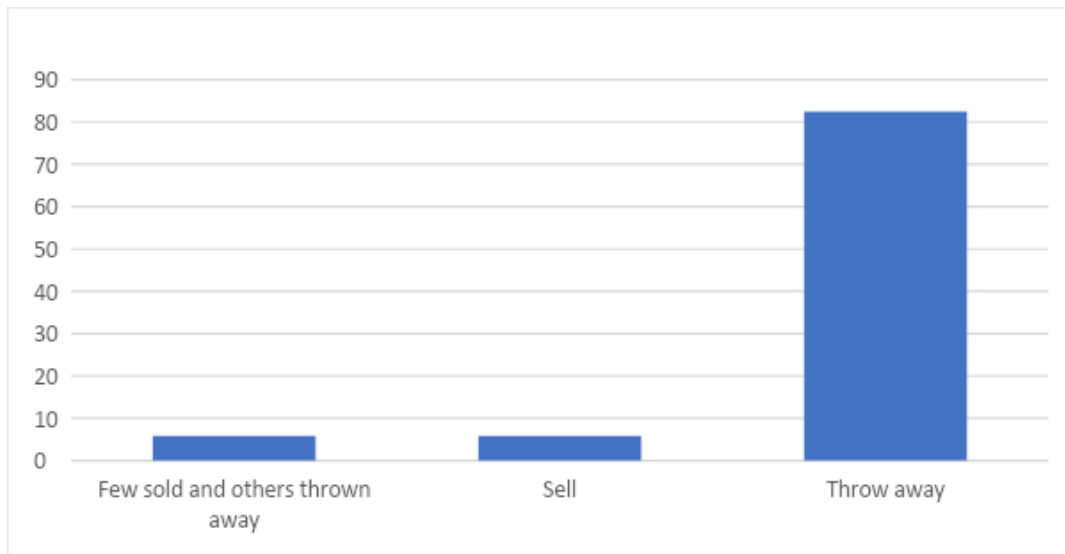


Figure 2: Percentage of hides and skins thrown away at the Garissa town slaughterhouse

Challenges in the Hides and Skins Sector

Hides and skins value chain in the subcounty faced a myriad of challenges that hindered its development. Flayers and traders reported that the quality of hides and skins produced was medium to low due to poor flaying practices that caused manmade defects. Little consideration to the quality of the hides and skins was given during flaying primarily because the focus was on the meat (Naporos, 2012). Figure 3 shows the challenges that led to poor quality of hides and skins in Garissa subcounty.

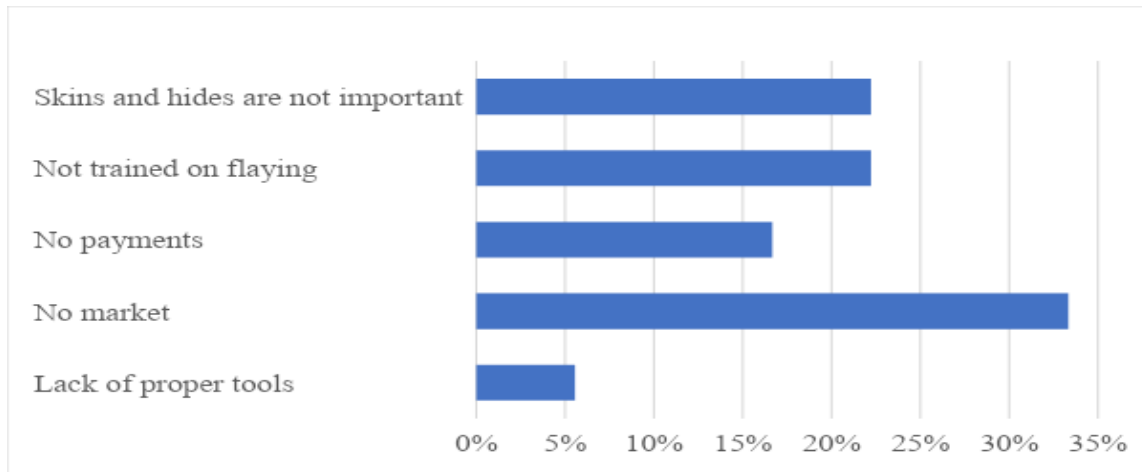


Figure 3: Challenges leading to poor quality of hides and skins in Garissa subcounty

Inadequate Market for Hides and Skins

This was identified as the major reason for the production of low-quality hides and skins since they seen to be of zero value to the community as cited by 34% of flayers. As a result, flayers disregarded the quality they produced. While hides and skins trade was profitable in the 1980s and 1990s, over the years prices have declined gradually to the point where they had no value, making them to be discarded (Figure 4). Only 5% of hides and skins are sold leading to significant underutilization.

One of the livestock owners lamented:

"We used to sell hides and skins to traders who had set up aggregation points. People looked forward to sell them and even looked for the traders. But the prices kept dropping over the years until there was no cost attached to them. Today, we just throw them away because the traders buy very little quantity and at very poor prices. In addition, they don't pay promptly."

Coupled with lack of market, flayers did not consider the quality of hide or skin during flaying since their daily wages were based on the number of carcasses flayed, not quality. Flayers risked losing job if they took too long to flay a single livestock, given the lack of value for the hide or skin. The following statement was reported by one of the flayers.

“Hides and skins fetch no prices for lack of buyers. Your employer will not consider how good the hide or skin you have produced but the number of carcasses flayed. As a result, flayers don’t bother producing quality hides and skins when there’s nowhere to take them. But if we can get the market, we promise to produce good quality”.

The slaughterhouse manager confirmed the assertion by the flayer by giving the following account:

“If hides and skins had value, we would certainly encourage our flayers to handle them with greater care and even offer incentives for proper flaying. Since this is lacking, our focus is on meat. We don’t care where the hides and skins are taken.”

Lack of market, coupled with pressures to skin many livestock, created a cycle where quality was not prioritized, perpetuating market decline. Figure 5 shows a hide with flay cuts at Garissa town slaughterhouse.

Lack and/or Delayed Payments

The success of hides and trade business was dependent on the uptake by tanners. With no tannery in Garissa County, the demand for hides and skins is in other parts of the country. Traders from Garissa subcounty supplied to tanneries in Nairobi area, more than 380 kilometres away. Despite the efforts to transport the hides and skins, traders faced delayed payments from tanners, which in turn affected payments to along the value chain below. Occasionally, tanners would reduce the agreed price after supply or reject the consignment, citing poor quality. The traders indicated that tanner would absorb less than 5% of the hides and skins as grade 1 and 30-35% as grade 2 and 3. Tanners would grade the remaining 60% as grade 3 or 4 which was considered waste. However, they would in turn buy them at very low prices. This led the business unsustainable resulting in lack or delayed payments to flayers, middlemen and farmers. Approximately 17% of flayers reported irregular payments for hides and skins sold. The observation confirms Wanyoike et. al., (2018) assertion that hides and skins are rejected by tanners due to poor quality.

Lack of Proper Flaying Tools

Only 6% of flayers recognized the importance of using proper tools for production of quality hides and skins. However, only 4% used the recommended flaying knives. Despite having received moderate training on flaying and importance of using proper flaying knives for better results, the others cited high cost and inaccessibility of the knives as reasons for non-adoption. About 96% of

the flayers used sharp-pointed kitchen knives (Figure 6), which caused flay cuts and gorges, damaging the quality.

Naporos (2012) observes that use of inappropriate tools cause holes, gauge marks, deep knife cuts, and flay cuts on the hides and skins, which consequently lowers the material quality resulting in lower prices.

Negative Perceptions from Tanneries

The perception that hides and skins from northeastern regions were low quality due to poor animal husbandry, scratches from thorns poor transportation by tanners led to offering very poor prices. This was reported by 15% of respondents. Although scratches from the thorny vegetation was reported as one cause of low quality of hides and skins (Kagunyu, et al., 2012), respondents argued that the same products are valued when the livestock are slaughtered in major towns outside ASAL regions. This has led to gradual decline in supply of hides and skins to the tanneries. A hides and skins trader stated:

“The tanneries we supply our hides and skins have branded products from the northeastern region as bad. As a result, they offer very poor prices. In many cases, they categorize 60% of the hides and skins as grade 4 with less than 5% as grade 1. This often leads to huge losses making the hides and skins trade not viable. But this is false narrative because the largest number of the livestock slaughtered in Nairobi comes from the region yet the same tanners do not reject the hides or skins from slaughterhouses in Nairobi. This is just a narrative they use to create an avenue to buy our products in their terms and conditions”.

Inadequate Flaying Skills

Flaying skills are typically imparted to flayers through apprenticeship. Majority (87%) of the flayers learnt the skills at home and perfected through apprenticeship over the years. The main motivation behind learning to flay was getting a portion of the meat from the flayed livestock to 80% of flayers (Figure 7). Flaying for hide/ skin acquisition motivated 20% of the flayers since there was no immediate market for the product.



Figure 7: Motivation for flaying

About 58% of flayers were introduced into flaying activities in the slaughterhouse by other flayers, suggesting a strong network and informal training system among flayers. The other 42% were introduced into flaying by the butchers who had employed them since it was part of their job description. Overall, flayers had no formal training on flaying, handling, preservation and storage of hides and skins. Wanyoike et. al., (2018) observes that the main reason for rejection of hides and skins is post mortem defects due to improper flaying skills, improper flaying tools, insufficient bleeding, careless handling of carcasses, and poor curing methods. Lack of flaying skills have been amplified by poor extension services on how to handle skins and hides especially the flaying techniques (Onyango, et. al., 2019).

Harsh Climatic Conditions

Garissa subcounty lies in a semi-arid climate characterized by very high daytime of $>25^{\circ}\text{C}$ and low relative humidity less than 30%. The existing storage facilities (bandas) did not meet required standards, exposing hides and skins to high temperatures and climatic anomalies like floods. While high temperatures made hides and skins vulnerable to breakages, floods caused significant damages (Wayua & Kagunyu, 2012). To prevent damage from heat, more industrial salt for preservation was used adding to the costs of preservation. A hide trader reported the following:

In 2024 floods swept away hides and skins worth Kshs 20,000 that I had gathered. It was painful to lose such a huge investment especially when we struggle to gather enough of them in the first place."

Poor Proper Facilities

Storage facilities available did not reach the required standard. They were constructed by traders using locally available materials and with no adherence to the required standards (Figure 8).

These shanty storage sheds exposed them to high temperatures, moisture and floods, rodents and other harmful pests leading to decay and spoilage (Figure 9). Onyango, et. al., (2019) note that the storage facilities are dilapidated or poorly constructed exposing hides and skins to harsh weather and infestation with pests. This results in inconsistent quality due to varied handling and storage methods. For example, the floods that occurred in 2024 damaged stored hides and skins as stated by a trader.

"The recent floods were devastating. They swept away hides and skins worth Kshs 20,000 that I had gathered. It's heartbreaking to lose such an investment, especially when we struggle to gather enough hides in the first place."

Some slaughterhouses/slabs such as the Garissa town slaughterhouse lacked basic facilities like slaughter rails and recommended floor type. In the slaughterhouse cattle and camel were flayed while on the on the ground.

Poor Handling of Hides and Skins

The most common form of mishandling of hides and skins was dragging a carcass on the ground lead to staining of the hides and skins with blood (Figure 10), stomach contents and dirt resulting in hastened deterioration of their conditions. With no proper flaying facility, cattle and camels were slaughtered and flayed on the ground resulting in poor bleeding and staining of the hides and skins.

Other forms of poor handling included exposing the fresh hides and skins in sun for a prolonged time, lumping of the hides and skins together without the recommended way of stacking (Figure 11), delays between flaying and preservation causing putrefaction and poor fleshing.

During flaying, flayers would deliberately leave meat in the hides and skins (Figure 12) to earn them extra income from the meat obtained during fleshing. Fleshing is the removal all loose tissue and meat/ fat from the skin. To acquire large amount of meat through fleshing, flayers would gouge out meat from the skins, resulting in deep flay cuts that damaged the hide or skin. In addition, respondents reported cases of deliberate cutting of hides and skins to lower their quality since there was demand from West Africa for such products. According to Rao (2025), most the cattle hides are illegally exported with undervaluation with over 90% exported to West Africa as food.

Opportunities for Hides and Skins

a) Restoration of traditional knowledge on use of hides and skins

Traditionally, the pastoral communities in Garissa sub county have used hides and skins for various purposes like beddings, prayer mats, cultural garments, baby carriers and making of ropes. Combining this indigenous knowledge with modern techniques, the sector can preserve indigenous knowledge, preserve culture, add value to products and create a unique market for authentic,

locally-produced goods. Promoting the sector would lead to documenting and preserving indigenous knowledge related to hides and skins processing and use.

b) Creation of job opportunities

Opportunities for job creation exist at every stage of the value chain especially for youth and women. The leather industry in Kenya is estimated to employ 14,000 people with 10,000 being in informal sector and can still directly create over 60,000 jobs, the majority of which would be in the rural areas where livestock keeping is dominant (Onyango, et. al., 2019). Among the opportunities reported by the respondents included flaying, collection and aggregation, trading and transportation of hides and skins. In addition, it was noted that people would trade in hides and skins for leather from the tanneries and develop small-scale leather enterprises and cottage industries where finished goods such as shoes, bags and belts would be produced.

c) Production of Affordable Leather Products

Local production of leather products will provide a range of affordable products that cater to the domestic market. Due to the harsh climatic condition in the sub county, respondents proposed production of sandals made up of leather since they are not only long lasting but would be more affordable than imported alternatives. It was noted that the price tag on the sandals made out leather was high and beyond reach of many people. Other products proposed were, belts, hand bags and wallets.

4. Conclusion

The hides and skins sector in Garissa sub-county offers significant opportunities for economic growth and cultural preservation. By blending traditional knowledge with modern techniques, the community can preserve cultural heritage, create unique, high-value products while simultaneously create jobs for youth and women across the entire value chain. This local production would also lead to the availability of more affordable and durable leather goods ultimately fostering economic growth and self-reliance within the community. Nevertheless, a significant finding from the survey is the missed opportunity in the use of hides and skins sector as an income earner. As a result, the sector was of zero value to the pastoral community leaving in the sub county. This led to poor handling of hides and skins at pre-slaughter, during and post-slaughter stages. Nealy all produced hides and skins are thrown away. Poor quality of hides and skins was prevalent in the subcounty causing low demand of the product. Consequently, there has been lack of enthusiasm in the sector leading to prevalence of knowledge and skill gaps among slaughter operators, flayers and traders regarding proper handling, preservation and storage techniques. These deficiencies compromise the quality of hides and skins from slaughter to sale. Thus, the sector faces lack of market for hides and skins and low prices.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Data availability

Data are available from the authors on reasonable request.

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