

# Hides, skins and leather value chain vision and strategy for Ethiopia



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# Preface

In 2012, the Ministry of Agriculture commissioned ILRI to develop several background papers to inform the development of a livestock master plan and roadmap for Ethiopia. The papers were developed by teams of people brought together for this task.

The production of the background papers was supported by the Improving the Productivity and Market Success of Ethiopian farmers project (IPMS) funded by the Canadian International Development Agency (CIDA). The eight papers are listed below and are all available at <https://cgspace.cgiar.org/handle/10568/51565>.

- Animal health strategy and vision for Ethiopia.
- Animal production vision and strategy for Ethiopia.
- Apiculture value chain vision and strategy for Ethiopia.
- Dairy value chain vision and strategy for Ethiopia
- Livestock extension vision and strategy for Ethiopia.
- Hides, skins and leather value chain vision and strategy for Ethiopia.
- Live animals and meat value chain vision and strategy for Ethiopia.
- Review of past policies and strategies for livestock in Ethiopia.

## Background: The hides and skins subsector

Ethiopia has one of the largest livestock population in Africa. As a result, its potential for development of the leather sector is substantial. Based on the annual offtake rate of 7% for cattle, 33% for sheep and 35% for goats, the potential annual production is estimated at 2.4 million hides, 10 million sheepskins and 7.4 million goatskins. Ethiopian sheep population is mainly of hair type producing skins highly valued in the world market for high tensile strength and compact fibre structure.

The export of processed and semi-processed skins constitutes one of Ethiopia's largest export commodities. However, the quality of raw material has been reported to be low with an increasing percentage of reject grades. For example a recent estimate has put the percentage of rejected skins as high as 65% (Kebede and Fetene 2012), caused by various antemortem and postmortem factors, including poor animal husbandry, disease and parasites, bad slaughtering and flaying techniques, and bad practices in curing, collection, transportation, storage and general handling (Ethiopian Investment Agency 2008). This implies that there is a need for putting strategies in place to enhance the economic contribution of the value chain.

## Current situation

Presently, Ethiopia's leather industry is in the forefront of the leather sector development within the eastern and southern Africa region. In the current national GTP plan, it is planned to increase skins and hides production from 44.7 thousand tonnes in 2010/11 to 103 thousand tonnes at the end of the plan period (2015). There are 21 tanneries in the country, having an average tanning capacity of approximately 4000 pieces of hide and 30,000 pieces of skin/day (Ethiopian Investment Agency 2008). With respect to the degree of tanning, the tanneries are largely limited to semiprocessing and currently only 14% of the total production is finished leather.

To increase the level of value added retained in Ethiopia from the processing of these raw materials, the government is now requiring that all new investments in the tanning industry be capable of processing hides and skins up to the stage of finished leather (Ethiopian Investment Agency 2008). The Ministry of Industry has also banned the export of crusted leather starting from December 2011 due to price hikes and scarcity of supplies (Fortune, 19 September 2011). Increasing the quality of hides and skins requires strategies for reducing pre- and post-slaughter damage and improving preservation and handling practices. In the sections that follow, key challenges of the sector and strategies for lessening these challenges and improving the value chain for these commodities are outlined.

## Key challenges and overall strategies

Ethiopian skins and hides, especially sheep skins from highland breeds, are well known in the world to produce high quality leather due to their fine grain and compact structure. Though the country has very good potential for supplying finished skins and hides, and leather products to the world market, the quality of skins and hides supplied has rather deteriorated over time (Kebede and Fetene 2012). The main challenges associated with downgrading of skin and hide quality can generally be categorized as natural defects (scratches, disease, ectoparasite induced defects) and manmade defects (brand marks, ripping and flaying, preservation, transportation, storage and poor handling). Overall, there is much to be done to improve the quality of hides and skins supplied to the leather industry and in improving the quality of the processed leather.

# Vision and targets

## Vision

A hide, skin and leather sector competitive in world markets, with expanded capacity to produce a variety of quality products for domestic consumption, and increased foreign exchange earnings through exports.

## Targets

- To reduce the proportion of low grade hides and skins from 70% at present to 10% in 2025 (based on GTP targets, and personal communication Kassa Bayou)
- Increase the foreign currency gained from HSL sector exports from USD 80 million at present (recently reported on radio) to USD 500 million in 2025 (based on GTP targets, MoFED 2010).



# Challenges and strategies

## Challenge I: Low quality of hides and skins emanating from poor husbandry practices

Quality deterioration in hides and skins can arise from the time an animal is born until the leather processing is completed. Evidence indicates that sizable volumes of these commodities go to waste or their quality substantially deteriorates in the value chain due to husbandry factors that could be avoided. Defects can be alleviated by using readily available and conventional remedial measures related to livestock husbandry. The major issues noted are:

- Erratic feed availability.
- Lack of efficient disease control and extension services.
- Absence of organized marketing system for livestock and livestock products.

It is thus vital to devise strategies aiming at addressing these constraints in its entirety from the stage of small producers to the final consumers, employing a participatory approach that will not compromise the interests of any of the involved partakers. The guiding principle need to be to promote commercialization of livestock rearing and linking this to slaughter facilities and the market of meat, and hides and skins.

- Strategies
  - Promote commercialization of livestock rearing
  - Strengthen programs on livestock feeding and upgrading of feed quality
    - Feed sheep and goats with balanced feeds or let them graze on good quality grass
    - Keep sheep and goats away from thorny bushes and barbed wire which can affect the skins by scratching.
  - Create awareness of the importance and value of hides and skins amongst farmer and pastoral communities and acquire hide and skin collectors/traders to implement quality-based payment schemes.
  - Improve veterinary extension service (VES) training of farmers to:
    - Treat sheep with insecticides like diazinon four times a year at quarter intervals, so that they become free of the parasites that cause skin defects

- Treat sheep and goats against sheep and goat pox which causes skin defects and also against Peste des petits ruminants, contagious caprine pleuropneumonia, fasciolosis, gastro-intestinal parasites.
- Use knap sprayers to avoid use of dip-tanks to dip sheep and goats affected by contagious diseases.
- Water animals to be dipped or sprayed so that they do not drink the pesticide solution.
- Avoid treating animals during the rains because the rain would remove the pesticide away from the body of the animals without killing the parasites.
- Create and promote efficient livestock and livestock product trading channels.
- Use proper shearing scissors to shear hairy sheep and never shear with kitchen knives which could easily nip the skins and cause skin scars.
- Avoid whipping sheep and goats with lashes and try to move them gently.

## Challenge 2: Poor slaughter facilities and practices

Most animals in Ethiopia are slaughtered in facilities which do not have adequate infrastructure or the tools required to ensure production of good quality hides and skins. The level of skills and techniques used during slaughter also vary widely. The challenges related to slaughtering facilities and practices include:

- Lack of adequate slaughter facilities in designated slaughter houses where the height of the abattoir may be a limitation; lack of hoists; proper flaying knives and hide pullers are not available in most cases.
- Perceived high fees charged to butchers when they slaughter in supervised abattoirs.
- Inadequate infrastructure where slaughterhouses are located and in homesteads; for instance lack of pipe water.
- Poor enforcement of existing legislation on the meat industry governing minimum requirements for slaughter houses and slaughter slabs.

The prevailing tradition of slaughtering especially of small stock during various holidays means that the slaughter takes place in homesteads or in market places. In situations where adequate commercial channels have not been established to purchase materials produced at this level, there is low recovery of hides and skins produced. The tanner in a majority of cases also obtains low prices and this influences the effort they put into taking care of quality of raw hides and skins during and after slaughter. Strong extension and training needs to be undertaken to avoid losses due to these factors.

- Strategies
  - Promote centralized slaughtering by enforcing existing legislation especially in urban centres.
  - Municipalities to charge fees commensurate with services rendered.
  - Improve and upgrade slaughter facilities and tools, including installation of hide pullers whenever possible.
  - Carry out awareness campaigns and training of butchers, flayers, traders as well as hides and skins extension workers on flaying and preservation techniques.

## Challenge 3: Processing and manufacture of finished leather goods

Hides and skins are processed into leather and subsequently manufactured into different finished leather products such as shoes, handbags etc. There are two forms of leather processing in Ethiopia: modern leather processing in tanneries and traditional tanning using vegetable tannins in pits. Traditional tanning is practised mainly for artisanal products and the modern processing has different facets related to its economic significance in terms of foreign exchange earnings and creation of employment opportunities. The issues related to leather processing and manufacturing are:

- **Lack of backward and forward linkages in the Ethiopian leather sector:** The development of this sector has been initiated from the production side because of the availability of raw hides and skins. Most tanneries in Ethiopia have been established as an export based industry to produce semi-processed raw hides and skins, without a long-term strategy linking it to the development of finished leather manufacture or manufacture of leather products.
- **Access to technology:** The Ethiopian leather sector suffers from lack of necessary technical skills and access to current technology. Most tanneries were initially started with reconditioned equipment and rarely invested in new equipment and technologies. As a result the sector's performance is constrained by the technology used and this is reflected in lower quality and low productivity.
- **Environmental issues:** The leather industry has been identified with generating air, liquid, and solid waste pollution. This has created a negative public image. Tanneries are expected to invest in effluent treatment plants as well as in other forms of waste disposal. To meet the regulations set to control pollution, the industry is forced to invest heavily in pollution abatement.
- **Strategies**
  - The Federal Ministry of Agriculture and regional bureaus of agriculture initiate and enforce programs promoting purchase of hides and skins according to quality.
  - The Quality and Standards Authority introduce grading standards for raw hides and skins.
  - GoE promote utilization of leather processing capacity with tax incentives.
  - The Leather and Leather Products Training Institute ensure better handling and preservation techniques through training of DAs and SMSs.
  - The Environment Protection Agency enforces international standards for clean nonpolluting production methods in leather processing and safe waste disposal.

## Challenge 4: Manpower training and skills

Available evidence indicates that there are few training institutions for the leather sector; poorly equipped and outdated technology in the existing training institutions; lack of employee skills upgrading and poor compensation for higher skills by private companies; low investment in hides, skins and leather research and development activities by companies and GoE. This has resulted in employee inefficiency, low productivity and low quality; shortage of trained manpower; and high levels of obsolescence and redundancy (Government of Ethiopia and the World Bank Group 2006).

- Strategies
  - Upgrade/rehabilitate the Leather and Leather Products Training Institute and open related departments in the existing higher agricultural teaching institutions.
  - Initiate relevant capacity building in technical skills in hides and skins as well as leather technology by the Leather and Leather Products Institute.

## Challenge 5: Quality grading, and prices not based on quality

The economic incentive is not sufficient for smallholders to improve the quality of hides and skins. It is important to strengthen the price signals and links of the supply chain to the smallholder farmer to enhance their investment in quality and produce satisfactory results. The economic incentives also need to be provided where the resultant impact is expected to be greatest, at the point of production or early in the supply chain. Thus, in order for the possible solutions to take root and begin to produce visible benefits, the presence of a supportive and enabling policy environment is essential.

An important measure that could help alleviate some of the quality problems is the establishment of differential payments for quality at the primary production level. Purchasing in mixed lots without paying due regard to grade deprives the primary producer of any incentive to improve quality and obtain a better price. Effective and supportive policy and enforcement by the appropriate government agency is required if incentive prices are to lead to improved quality. In addition, relevant stakeholders like the Quality and Standards Agency and the Leather and Leather Products Training Institute need to be involved in the process of setting up and implementing the grading and pricing scheme as this would encourage buy in ownership and adherence to the requirements of such a scheme once in place.

## Challenge 6: Limited supply of skins and hides as a result of low offtake and high proportion of informal slaughtering

Use of hides and skins for producing traditional household items, the existence of illicit cross border trade and misuse of the raw material due to lack of awareness, result in a low recovery rate and ultimately shortages of raw hides and skins (Government of Ethiopia and the World Bank Group 2006).

- Strategic options
  - Create awareness through various means (mass media, training at FTCs etc.) so that offtake of the commodities would be improved.
  - Strengthen industry cluster projects/models like that implemented by USAID agribusiness and trade expansion program for improving, among others, harvest management and increase raw stock collection.

## Challenge 7: Research gap for technology generation

Research in the hides and skins sector is weak in Ethiopia. Research programs need to be formulated, rationalized and prioritized with stakeholders' participation to ensure that the country's strategic research interests in the hides and skins industry are addressed (GRM International BV, undated document). The following research themes need to be given considerable attention.

- Descriptive research works on production, management and processing of hides and skins is needed to identify constraints along the value chain.
- Hides and skins are affected by the pre-slaughter defects accumulated during the life of the animal. Research aimed at identifying the natural and manmade factors accountable for the pre-slaughter damages of hides and skins under various livestock production systems is very important to be able to formulate strategic options to alleviate these constraints.
- Nutrition is one of the factors affecting the health of animals and the quality of hides and skins. Poorly fed animals are smaller; their skin is thinner and inelastic. It is thus important to generate information on the effects of various feeding regimes on the quality of skins and hides to design appropriate feeding systems targeted for quality hide and skin production.
- Basic information on the effect of age of the animal on the quality of hides and skins is meagre in Ethiopia. This information, if made available, can be used to decide at what optimum age the animals have to be slaughtered to get quality hides and skins.
- Desirable or undesirable characteristics of hides and skins can be attributed to certain breeds. Cattle hide and sheep skins were for example reported to be influenced by breed than that of goat skins (Gonzalez 1981). The climate in which an animal is raised does also influence the substance of its skin and on the grain of the leather. Animals raised in warm climate were reported to have a short hair and the leather produced to have superior substance, smoother and finer grain patterns, whereas animals raised in cooler climate or higher altitudes grow longer wool or hair; and the leather made are of poorer substance and coarser grain patterns. These effects of climate, especially on substance is more pronounced on sheep and goat skins than on cattle hides (Gonzalez 1981). Information on the effect of breed and climate on the quality of hides and skins is not available at national level indicating the importance of researching on these factors in the future in Ethiopia.
- Integration of indigenous knowledge into the development of improved technologies for hides and skins is also important..

## Challenge 8: Lack of strong technology transfer efforts

- The Federal MOA and regional agricultural development bureaus need to strengthen technology transfer efforts targeting quality improvement of hides and skins to smallholder farmers through improved animal husbandry and health service delivery.
- Creation of awareness among extension staff, butchers, collectors, tanners and other stakeholders and the general public of the economic importance of hides and skins is very important.
- It is important to support local producers in participating in local, national and international shows and exhibitions of hides and skins, leather and leather product and by-products. This can be facilitated by the Ministry of Trade, regional trade and industry bureaus and other concerned stakeholders.
- Promotion of extension training in hides, skins and leather sector at tertiary institutions is also vital.

# References

- EIA (Ethiopian Investment Agency). 2008. Investment opportunity profile for tanning of hides and skins up to finished level in Ethiopia, Addis Ababa, Ethiopia: EIA.
- Fortune. September 19, 2011. Addis Ababa, Ethiopia.
- Gonzalez, V.M. 1981. *Hides and skins improvement manual*. Geneva: ILO.
- Government of Ethiopia and the World Bank Group. 2006. An overview of the integrated value chain analysis of selected strategic sectors, Global Development Solutions.
- GRM International BV. Undated. Federal Democratic Republic of Ethiopia, MOA: Livestock development master plan study. Phase II Volume 1a. Executive summary of main report and sub master plans, Addis Ababa, Ethiopia.
- GRM International BV. Undated. Federal Democratic Republic of Ethiopia. Ministry of Agriculture and Rural Development. Livestock Development Master Plan Study, Phase II Volume I.
- Kebede, N. and Fetene, T. 2012. Population dynamics of cattle ectoparasites in Western Amhara National Regional State, Ethiopia. *Journal of Veterinary Medicine and Animal Health* 4(1):22–26.
- LLPI (Leather and Leather Products Institute). 2002. Leather and Leather Products Institute – Prospectus. Addis Ababa, Ethiopia: LLPI.
- MoFED. 2010. *Growth and Transformation Plan (GTP) of Ethiopia*. Addis Ababa, Ethiopia: MoFED.

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The Improving the Productivity and Market Success of Ethiopian Farmers (IPMS) project, funded by the Canadian International Development Agency (CIDA), was a research for development project that worked with the Ethiopian Ministry of Agriculture (MoA) to transform the smallholder subsistence farming system to a more commercial-oriented agricultural system. To contribute to this transformation process, the project used a value chain systems approach, focusing on the MoA's extension system, value chain actors, service and input suppliers. <https://ipmsethiopia.wordpress.com/>



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