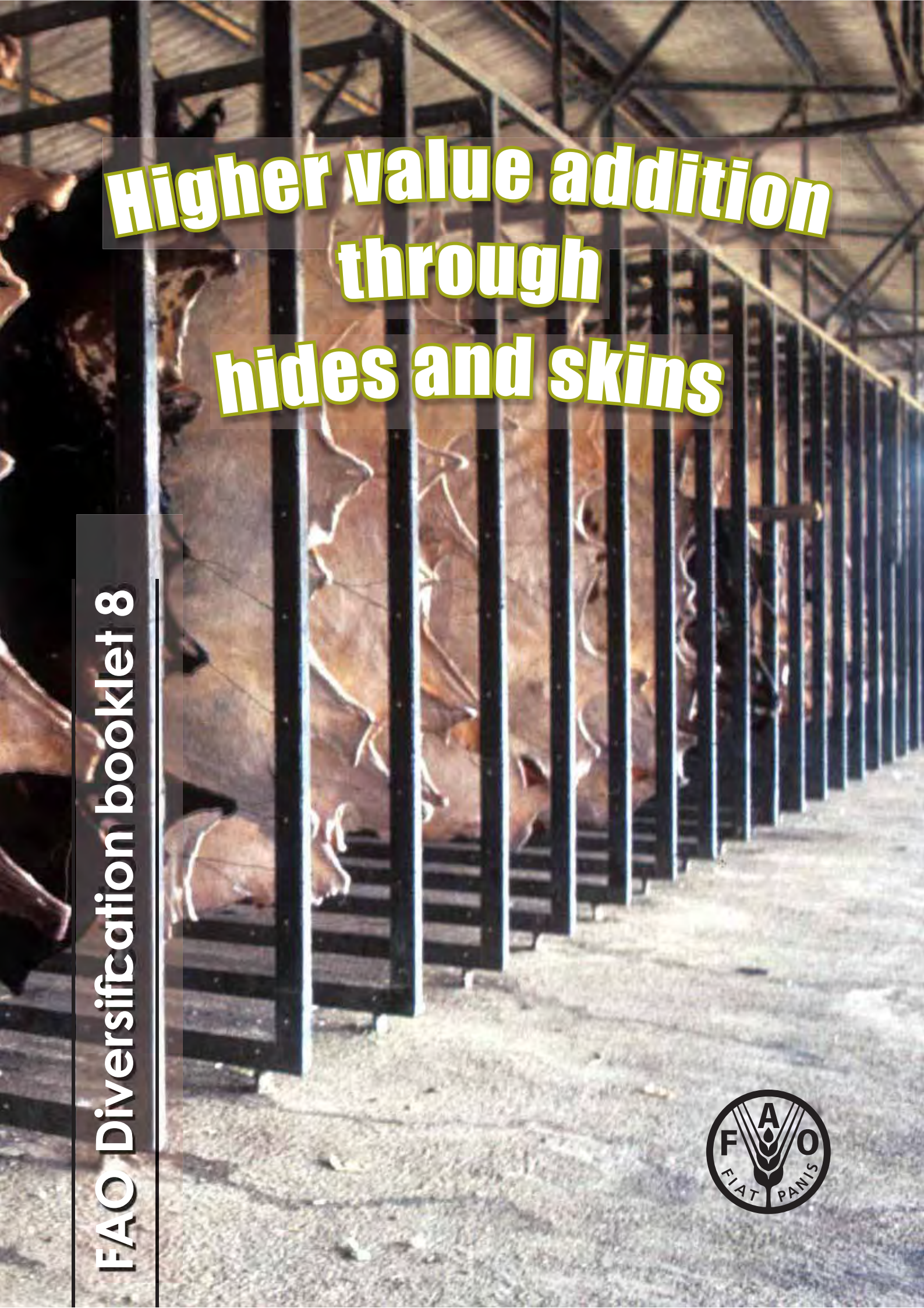
Higher value addition through hides and skins



FAO Diversification booklet 8

Diversification booklet number 8

Higher value addition through hides and skins

Ian Leach and R. Trevor Wilson

Rural Infrastructure and Agro-Industries Division
Food and Agriculture Organization of the United Nations
Rome 2009

The views expressed in this publication are those of the author(s) and do not necessarily reflect the views of the Food and Agriculture Organization of the United Nations.

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

All rights reserved. Reproduction and dissemination of material in this information product for educational or other non-commercial purposes are authorized without any prior written permission from the copyright holders provided the source is fully acknowledged. Reproduction of material in this information product for resale or other commercial purposes is prohibited without written permission of the copyright holders. Applications for such permission should be addressed to: Chief Electronic Publishing Policy and Support Branch Communication Division FAO Viale delle Terme di Caracalla, 00153 Rome, Italy or by e-mail to: copyright@fao.org

© FAO 2009

Table of contents

Preface

The purpose of the FAO Diversification booklets is to raise awareness and provide decision support information about opportunities at farm and local community level to increase the incomes of small-scale farmers.

Each booklet focuses on a farm or non-farm enterprise that can be integrated into small farms to increase incomes and enhance livelihoods. The enterprises profiled in the FAO Diversification booklets are suitable for smallholder farmers in terms of resource requirements, additional costs, exposure to risk and complexity. The products or services generated by the enterprises are suitable for meeting demand on a growing, or already strong, local market and are not dependent on an export market. However, in this particular booklet, export markets will be considered.This is because small enterprise development and local markets are influenced by international market demand for hides and skins.

The main target audience for these booklets are people and organizations that provide advisory, business and technical support services to resource-poor small-scale farmers and local communities in low- and middle-income countries. It is hoped that enough information is given to help these support service providers to consider new income-generating opportunities and how these might enable small-scale farmers to take action. What are the potential benefits? What are farmer requirements and constraints? What are critical 'success factors'?

The FAO Diversification booklets are also targeted to policy-makers and programme managers in government and non-governmental organizations. What actions might policy-makers take to create enabling environments for small-scale farmers to diversify into new income-generating activities?

The FAO Diversification booklets are not intended to be technical 'how to do it' guidelines. Readers will need to seek more information or technical support, so as to provide farmer advisory and support activities relating to the introduction of new income-generating activities. To assist in this respect, each booklet identifies additional sources of information, technical support and website addresses.

A CD has been prepared with a full series of FAO Diversification booklets, relevant FAO technical guides, together with complementary guides on market research, financing, business planning, etc. Copies of the CD are available on request from FAO. FAO Diversification booklets can also be downloaded from the FAO Internet site.

If you find this booklet of value, we would like to hear from you. Tell your colleagues and friends about it. FAO would welcome suggestions about possible changes for enhancing our next edition or regarding relevant topics for other booklets. By sharing your views and ideas with us we can provide better services to you.

Acknowledgements

Gratitude is owed to E. Seidler, Senior Officer, Rural Infrastructure and Agro-industries Division (AGS), FAO, for providing detailed reviews to the various drafts of this booklet. Thanks also go to Heiko Bamman, Enterprise Development Officer, AGS, FAO, for reviewing the booklet and providing comments and Clare Bishop-Sambrook for providing technical inputs to the booklet.

Acknowledgements for the series

Gratitude is owed to Doyle Baker, Chief, Rural Infrastructure and Agro-Industries Division (AGS), FAO, for his vision, encouragement and constant support in the development of the FAO Diversification booklet series. Thanks are also due to Josef Kienzle, Agro-Industries Officer, AGS, FAO, for his patience, commitment, and contributions to the production and post-production of the series. Clare Bishop-Sambrook, principal editor of the series, provided technical support and guidance, both during the development and finalization of the booklets. Martin Hilmi provided both technical and editorial inputs and managed the post-production phase of the series. Fabio Ricci undertook the design and layout of the booklets and desktop publishing.

Contribution of hides and skins to rural livelihoods

Introduction

Hides and skins are an end product of animal production. As an end product – although more correctly they are a by-product – they are an important and valuable resource. In the developing world they are almost never exploited to anything like their full potential. Hides and skins are often thought of as intrinsically unclean and end up being discarded or wasted because of ignorance or misinformation. Others are processed improperly which greatly reduces their potential value.

Hides and skins are a renewable resource of national and international significance. They provide scope for exploitation on a sustainable long-term basis. More particularly, production and marketing of hides and skins provide opportunities to support and sustain livelihoods especially in rural areas. In order to operate successful ventures, however, there must be a suitable business structure and the hides and skins must be treated as commercial assets. As a resource, hides and skins are the raw materials for various types of businesses – such as collecting, processing and distributing – which provide many service jobs in countries where livestock are produced.

To take advantage of this in a successful way, farmers, merchants, butchers, entrepreneurs, and traders working in rural communities need to take full advantage of their local knowledge, including sources and supplies of hides and skins. Each of these groups needs to be aware of its own special skills and those of others in the supply chain so that each is able to add to the production process. Too often butchers, for example, see hides and skins merchants simply as unnecessary middlemen. Greater understanding and appreciation of other people's contribution to the business of hide and skin production – for example under the auspices of trade associations – could help to resolve contentious issues and promote economic cooperation.

Purpose of booklet

By highlighting the most important issues in increasing the best use of hides and skins, it is hoped that development personnel and potential entrepreneurs will recognize the opportunities that are available for

increasing the quantity and quality of hides and skins that enter the production chain. This would not only result in improved livelihoods for producers but also assist in expanding employment and income opportunities in general.

The booklet focuses on important aspects of this business. The case studies demonstrate some of the constraints that have affected useage of hides and skins in some countries and offer some solutions. Most of these examples derive from project work of FAO in various parts of the world. More detailed information about the production and utilization of hides and skins is available from other publications listed at the end of this booklet. Additional sources of information, such as trade associations, research organizations, commercial publications and websites are also listed.

Market potential of hides and skins

Production

In the short term until 2010, global production of hides and skins is expected to continue growing at a slow rate. Slow or negative growth in production in developed countries is expected to be compensated by faster growth in developing countries, where livestock raising is likely to expand in order to satisfy an increasing domestic demand for meat. Among the developed countries, production of bovine hides and sheep and goat skins in North America is expected to contract. In Europe and the former Soviet Union area, the negative trend experienced during the past decade is likely to reverse, mainly because of improvements in income that are projected to take place in Eastern European countries and the Russian Federation and the subsequent increase in the demand for meat and slaughter.

Production of bovine hides and sheep and goat skins in developing countries is projected to increase and is expected to be equivalent to 56 percent of global production for bovine hides and 71 percent of global production for sheep and goat skins in 2010. This increasing trend is likely to be governed by a growth in slaughter and the per caput consumption of meat, as well as by increased efficiency in the collection, flaying and preservation of hides and skins, especially in Africa.

Leather products

More than 50 percent of bovine hides and approximately 40 percent of sheep and goat skins are processed into footware, with the remainder being used for the production of garments, furniture and travel goods. It is projected for the medium term that shoes will continue to provide the major demand for leather although other products are also expected to increase their share, especially in developed countries.

While the consumption of leather products is mainly determined by the level of prices, income and consumer demand preferences for other product attributes, the production of hides and skins depends on factors related to the meat market that are exogenous to the hides and skins and leather markets. These differences in economic incentives at both ends of the leather

supply chain are often responsible for wide price variations as the market adjusts to equilibrium.

In the medium term, it is likely that income growth will stimulate demand for footware and other leather products, and as the supply of hides and skins will record restrained growth rates, prices will strengthen to bring consumption in line with production.

Consumption of leather products, in the developing countries, expressed in raw equivalent, is expected to increase by an average of 1.1 percent per annum for bovine hides and by 1.8 percent per annum for sheep and goat skins. These rates reflect a slowdown in consumption in developing countries in comparison to the previous decade which was characterized by a strong upward trend in the Far East; China, especially found improvements in income in conjunction with increased tanning capacity and obtained gains in efficiency in the manufacturing of footware, thus stimulating local and export demand for leather goods, but all in all consumption is likely to increase moderately in the Near East.

Consumption of hides and skins in Africa is expected to increase by 1.54 and 4.67 percent per annum respectively, mainly because of improvements in income. This signifies increasing market opportunities.

Trade

Among the developing regions, the Far East is expected to continue being the most important net importer of bovine hides, with imports projected to grow by 1.24 percent per annum to approximately 1.0 million tonnes by 2010. It is likely that, given the tanning and footware manufacturing capacity in China, most of the imports in the Far East will be in the form of raw hides for processing and re-export. Exports of bovine hides from Africa are likely to grow at a fast rate and provide an important source of export earnings for countries such as Kenya, Ethiopia, Somalia and Zimbabwe, while exports of sheep and goat skins are likely to be reduced as a result of growing domestic demand.

Latin America is expected to continue being the most important net exporter of bovine skins and leather products, accounting for 10 percent of global consumption by 2010. Developed regions are expected to remain, as a group, net exporters of hides and skins. Exports of bovine hides from North America are likely to grow at a fast rate, while those from countries in the former Soviet Union are expected to contract because of strong domestic demand. Oceania will remain the dominant exporter of sheep and goat skins, while net imports of both bovine hides and

sheep and goat skins into Europe are projected to level-off by 2010 to 47 000 tonnes and 59 000 tonnes respectively, exhibiting slow rates of growth.

Although hides and skins output from developing countries is projected to increase appreciably, a number of problems that have plagued the sector need to be addressed in order for developing countries to realize their full potential. Such problems include, but are not limited to: poor quality of hides and skins; poor and deteriorating road infrastructure; weak power supply and poor communication flows that affect all the components of the supply chain; low labour productivity; inadequate levels of technological development; poor management; and inefficient training services. Fortunately, many stakeholders realize the need to address these issues.

Location of business

Production of hides and skins and pre-tanning processing are practised throughout the world, but locations for the production of finished leather and the manufacture of leather products are much less widespread. Two thirds of finished leather comes from only ten countries with the four dominant producers being Italy, the Republic of Korea, China and India.

Global concentration of the tanning industry, particularly during the 1980s and 1990s, led to an increase in international trade in all types of raw hides and skins, semi-processed and finished leather, leather goods and components. Global trade in leather has increased consistently since the 1960s and is now an industry with an estimated turnover of US$10 billion per year. Recently, there has been a trend to move the manufacturing process for finished leather goods to Eastern Asia, where labour costs are lower. The countries involved are China, Taiwan, India, and, to a lesser extent, Thailand and Indonesia.

Shoe manufacturing is a labour-intensive industry. Like leather finishing, shoe manufacturing has been concentrated in Asia because of the low labour costs. Taiwan and the Republic of Korea were once the pre-eminent countries for shoe manufacturing, but now Brazil, China, Indonesia and Italy have become the major producers.

The leather industry has been and continues to be under increasing pressure from different fronts concerning compliance with environmental regulations. By its very nature, leather processing requires enormous amounts of water and involves the use of several chemicals. Effluents discharged from tanneries thereby become a significant source of environmental pollution. Many

in the industry continue to search for ways to address the problems of pollution in the tanning industry. A number of environmentally friendly processes have been developed and implemented across the world, but mostly in developed countries. By virtue of their scale of operation, many tanneries in the developing world still lack the capital required to invest in the currently available environmentally friendly processing methods. The increasing costs of environmental compliance are making it difficult for processors to remain competitive. In some cases, this has led to closures, while in others, tanneries have chosen to relocate their businesses to places where environmental regulations are less stringent. In the medium to long term, compliance with environmental requirements could continue to lead to a shift in tanneries from developed to developing countries where regulations are less stringent and labour costs are lower.

Livelihood opportunity

Advantages as a livelihood activity

Producing hides from large animals and skins from small animals does not entail a huge investment and although operational costs may be high, solutions can be found to keep them to manageable levels. No hide is too big and no skin too small to provide a source of income and employment in rural areas. Hence it is an activity that many rural dwellers could take up.

Most countries have resources from livestock that can provide hides and skins for making leather, garments, shoes, handbags and other leather goods. Hides and skins are most commonly a by-product of meat, milk or wool production. They become available when an animal is eventually slaughtered and flayed. In developed countries, hides and skins are produced during the course of slaughter in purpose-built premises (abattoirs) while in developing countries they often emanate from backyard slaughtering or informal slaughter (see Figure 1). These latter sources are rarely exploited to their full potential.

Hides and skins are also produced by one of a variety of religious or ritual slaughtering techniques. However, many hides and skins remain uncollected, and income and employment opportunities that might be associated with their use are lost (see Case Study 1).

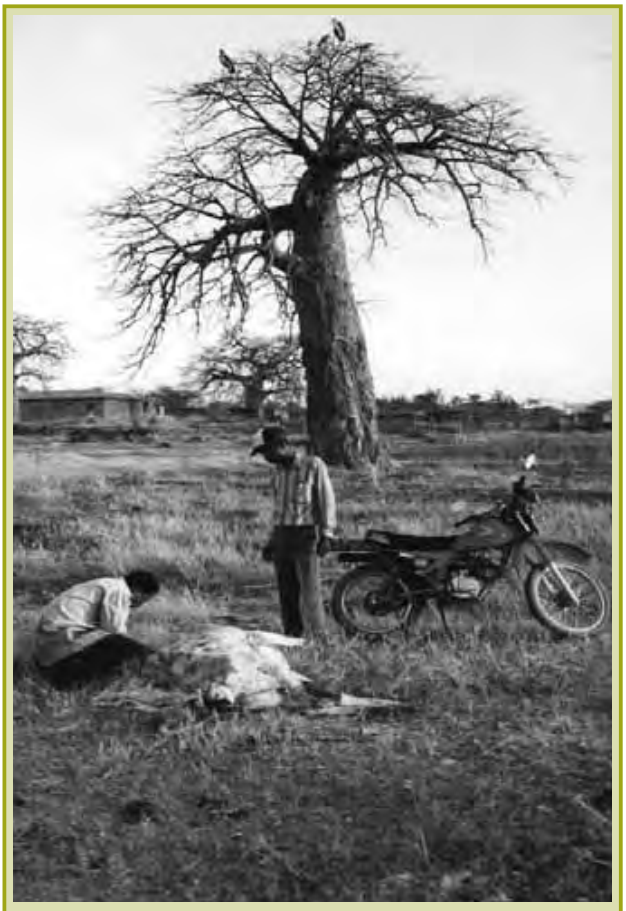


FIGURE 1 Bush or informal slaughter is the source of many hides and skins (Photo by I. Leach)

Very few animals are kept specifically for their hides and skins. Exceptions

CASE STUDY 1 **Cultural and religious significance of livestock in Pakistan**

In many societies the slaughter of animals is commonly used to provide food for special festivities, often religious celebrations such as the Muslim Eid-ul-Azha. In Pakistan during the Eid-ul-Azha, which is referred to locally as *Qurbani*, the slaughter of animals may exceed ten times the normal daily rate. Normal, or halal, slaughtering procedures require animals for human consumption to be fit and healthy, but those used during *Qurbani* must be of particularly high quality because of their religious symbolism and significance. This festival could thus produce a large number of high quality hides and skins, but the animals are commonly slaughtered on private premises by people with little practical experience. The slaughtering process is often wasteful and unsanitary, and many hides and skins produced during *Qurbani* are lost or spoiled. During such an important religious festival it would often be difficult to encourage people to worry about issues such as avoiding waste and keeping the environment clean and tidy, but in Pakistan public service broadcasts have been used to increase businessmen's knowledge of the commercial opportunities which arise in these situations.

FIGURE 2 Animal selected for ceremonial slaughter during 'Qurbani' in Pakistan (Photo by I. Leach)

include fur-bearing breeds of fox and mink and Karakul sheep for their pelts (see Case Study 2). The vast majority of hides and skins come from a relatively small number of domesticated livestock species, which include: cattle, sheep, goats, pigs and buffalo.

CASE STUDY 2 High value pelts from Karakul sheep in Namibia

The Karakul industry, which has existed for over 100 years in Namibia, is one of the enterprises that have enabled economic and social development in large parts of the country and rural communities. Although the industry is relatively small, it contributes to the livelihood of communities, especially in the arid areas of the country where resources are limited; moreover, the industry has the potential to grow, as a result of increased demand for the particular pelts.

Karakul productivity is expressed by the number of pelts per ewe per unit time and is therefore affected by low reproductive and high mortality rates. Lambs used for pelt production are slaughtered the first day after birth, otherwise the characteristic curls and patterns disappear. Slaughtering and skinning are done by knife and by hand. Tissue and fat are removed with a knife, and the blood and dirt are washed out with cold water. The wet pelt is spread on a frame covered with jute and dried in the air.

Prices of pelts are related to:

Colour

Grey pelts are better priced than black ones. Prices for check red pelts are very low owing to low demand and inferior quality.

Pelt size

Pelt size depends on litter size and the nutrition and age of the ewe. Pelts smaller than a standard fetch much lower prices.

Hair length and curl size

Hair length and curl size affect price. 'Good' is short hair or small curls and 'bad' is overgrown hair and curls. Overgrowing is more common in years of good nutrition.

Hair quality and pattern

Hair quality is determined by lustre and texture while pattern has a considerable influence on the attractiveness of a pelt. Hair quality and pattern therefore have high economic value.

Curl type

The breeder distinguishes among the Shallow types in Galliac (almost without curls), Watersilk, Shallow and Shallow developed, and among the Curl types in developed Shallow and Pipe curl but there are many intermediate types. The Shallow types were bred from the Curl types in the 1920s. Only four classes are recognized on the market, these being **Shallow**, **Developed**, **Ribbed** and **Curl**. Better prices are achieved for shallower types.

Swakara pelts, which are the main product of the Karakul sheep, are sold at international fur auctions. Swakara fur garments, styled by the most prominent and famous designers, are displayed in fashion boutiques around the world.

Source: 2007. The Namibia Economist. (http://www.economist.com.na/)

Opportunities foregone

Determining the extent of losses from hides and skins that are not collected for processing or are processed improperly is difficult to estimate. Many hides and skins are discarded soon after slaughtering, but the major losses occur among materials which have been damaged before, during or after collection. Most hides and skins are affected by pre-slaughter defects accumulated during the life of the animal (see Case Study 3). Some are damaged during slaughter while relatively few are spoilt during preservation.

FIGURE 3 Outdoor drying in Uganda (Photo: © FAO/17516/R. Faidutti)

CASE STUDY 3 **Damaged livestock skins: external parasites in Ethiopia**

In Ethiopia in the early 1990s almost all the country's sheepskins and most of its goatskins were increasingly affected by pre-slaughter defects of unknown origin. The problem varied from minor imperfections in the surface grain of finished leather made from affected skins to more severe pits and blisters. None of these defects were apparent on the raw material, so skins went through expensive processing before the damage became obvious. Since these types of skins were often used to make such products as high quality sporting gloves, anything less than a perfect, blemish-free skin was a serious problem.

Field trials eventually confirmed that the sheep skins were affected by cockle, an irritation caused by the sheep ked (*Melophagus ovinus*) and the sheep louse (*Bovicola ovis*). Goats were affected by sarcoptic mange caused by mites (*Sarcoptes scabiei*). Both problems were easily treated with pesticides such as Diazinon or Amitraz, but the sheep also responded well to simple shearing. Since the damage caused by these external parasites was not permanent, skins from treated animals soon showed no evidence of the original defect. Among the goats in particular, mortality was reduced significantly and there was significant weight gain among the treated animals. In practice, these findings were of immense value to the industry.

FIGURE 4 External parasites (keds) on Ethiopian hair sheep
(Photo by I. Leach)

The potential for reducing losses associated with uncollected and spoiled hides and skins is affected by general economic factors and by the balance of supply and demand (see Case Study 4). The overall supply of hides and skins is fixed because livestock numbers and slaughter rates are relatively stable. The demand for leather products – and hence for hides and skins – can, however, fluctuate quite rapidly.

CASE STUDY 4 **Fast-growing rabbits producing poor-quality skins in India**

Certain types of skins have always provided special problems during the tanning process. This applies especially to the skins of very young and immature animals. Such skins are particularly susceptible to damage by high temperatures and intensive agitation.

In Northern India in the early 1980s, rabbit production became popular as a convenient source of inexpensive meat. Rabbit skins were ideal for leather manufacture in the local handicrafts industry. Intensive commercial production of rabbit meat, however, normally uses concentrated feeds to achieve rapid growth and weight gain. This produces large animals ready to slaughter at a relatively young age, but it also makes their skins immature and weak, and liable to damage during tanning. Because of this, the skins from this production system were of little value. A simple solution is to use low energy, non-concentrate diets. These feeds are relatively cheap, so the extra time required to reach slaughter weight is not significant and the skins of the older animals are much less susceptible to damage during tanning and are therefore more valuable.

The livelihood activity

Producing quality hides and skins

For production of the best hides and skins only healthy animals should be slaughtered and they should be processed by operators properly trained in slaughtering and dressing techniques. To avoid unnecessary stress and to reduce the risk of stress-related defects in the meat, animals should be treated humanely. Approved slaughtering and dressing techniques should be adhered to. Correct post-slaughter treatment of hides and skins by small producers is essential if quality is to be assured. Correct flaying, drying and treatment of skins is necessary if slaughter is 'in the bush'.

If appropriate precautions are adopted during slaughtering, the hides and skins produced should be free of processing or peri-slaughter defects. They should be even along the backbone and more or less rectangular without being folded inward. They should in particular be free of deep cuts on either side and have no holes in the external surface. Hides and skins should be, wherever possible, well protected against contamination by blood, dung or other extraneous matter and kept cool to restrict the growth of any micro-organisms that can damage them.

Preservation

Most hides and skins must be preserved to protect them during storage and transport until they are converted into leather. Preservation should ideally begin immediately after slaughter and should never be delayed overnight.

The most common methods of preservation are drying, salting, brining or the use of other chemicals (see Table 1). Refrigeration, freezing and mechanical drying methods can be used, but they are expensive and tend to be reserved for more valuable skins in particular situations.

TABLE 1 **Common methods of preservation of hides and skins**

Drying	*Sun drying:* in direct sunlight and usually on the ground. *Frame drying:* in a large frame. *Shade drying:* in a roofed shelter and usually in a frame and is the recommended way. *Suspension drying:* in a large frame, over a pole or even on a porous wall.
Salting	*Pit salting:* using an excess of salt and preventing any loss of moisture by retention in a pit. *Stack/wet salting:* using an excess of salt and allowing excess moisture to drain away. *Dry salting:* using an excess of salt followed by drying.
Brining	*Static/pit brining:* by immersion in a saturated brine with little or no agitation. *Raceway brining:* by immersion in a saturated brine with considerable agitation.
Chemical	Chemicals (other than salt) provide preservation lasting days, weeks, months or years.

With the exception of sun drying, which has no real merits, most of the preservation procedures presented in Table 1 can be used successfully almost everywhere.

The final choice will depend on the availability of materials, chemicals and suitably trained staff and on the requirements of the customer. In practice, the most useful methods tend to be suspension drying on a frame in the shade (see Figure 5) and stack salting.

FIGURE 5 Suspension drying of large cattle hides (Photo by I. Leach)

FIGURE 6 Transport of dried hides from source to central collection in Ethiopia (Photo by I. Leach)

Preservation is most effective when it is carried out quickly and thoroughly. Cattle hides, for example, should be dried to a moisture content of less than 15 percent within three days. Sheep and goat skins should be dried to a moisture content of less than 15 percent within one day. If drying takes longer bacterial damage is likely to occur. Similarly, hides and skins preserved by salting or brining should be saturated with salt – sodium chloride – within one day. Properly preserved hides and skins should be free of post-slaughter defects related to preservation processes, such as bacterial decay, contamination and adulteration. Dried hides and skins should be flat, smooth and protected against insect damage during long term storage. Salted and brined hides and skins may be rolled, stacked or bagged to facilitate storage and transport.

Preserved hides and skins may be stored for up to a year while awaiting further processing. During this time preserved hides and skins may be collected and transported from remoter parts of a country (see Figure 6) and undergo grading, sorting and accumulation into large lots pending storage, sale and delivery. Storage usually involves costs such as rent, depreciation and interest charges.

Common fallacies concerning hides and skins

The section below addresses some of the common misunderstandings about the production and presevation of hides and skins:

Preservation is an essential part of the tanning process.

No

Leather can be made by using unpreserved hides and skins, but if hides and skins have to be stored and transported for long periods they must be protected by preservation.

Sun drying is the least expensive method of preserving hides and skins.

No

It is the most expensive. Because only a small piece of ground and a few fixing pegs are needed, sun drying might seem to be inexpensive but the quality of the dried hides and skins provided by this technique is often poor.

Drying salted hides is an essential part of the preservation process.

No

Salted hides are dried to reduce the weight-based costs of transport.

Hides with deep cuts and holes are not suitable for leather manufacture.

Not necessarily

Many hides are deliberately cut into two halves, or sides, in the tannery, so if defects such as cuts and holes are close to the backbone they will disappear when the hide is cut.

Heavy bull hide is better and more valuable than small calfskin.

Usually not

Most leathers made from heavy hides must have their thickness reduced in order to be suitable for many purposes. As layers are cut away from underneath the hide, what remains becomes progressively weaker.

Wet-salted hides and skins are better raw material than dried material.

No

The few recorded tannery evaluations comparing similar hides and skins preserved in different ways show that dried hides and skins can be as good as wet-salted ones.

Salting is the best method of preservation.

No

In many parts of the world salt is scarce and expensive so the method is often corrupted. Rehydration and washing salted hides produces a problem with effluents that is difficult to handle.

'Red heat' is a sign of bacterial damage on salted hides and skins.

No

It is true that many halophytic bacteria are red in colour and can attack salt-cured hides and skins, but their activity tends to be very slow and there are many colourless salt-tolerant bacteria that can damage salt-cured hides and skins.

Salt preserves hides and skins by removing water, changing the acidity (pH) and acting as a disinfectant.

No

Well-preserved salted hides may still contain 45 percent moisture; the pH is unchanged by salt and salt is not a disinfectant. Salt preserves hides by making the water in the hide biologically unsuitable for bacterial growth.

Grade I hides and skins make better quality leather than Grade IV material.

Yes

But only if all the defects such as cuts and holes in the raw material are large and visible. Most defects on hides and skins are small and difficult to see and only emerge during tanning. So Grade IV materials can sometimes provide better leather than Grade I materials if, as sometimes happens, they contain fewer pre-slaughter defects.

A price of US$3.00/kg for hides or skins is better than a price of US$1.86/kg.

Not necessarily

If the price is US$3.00/kg for dried material, for example, and the US$1.86/kg is for wet-salted material, the total price for a hide or skin of the same original fresh weight would be the same.

Markets and marketing

Markets

The traditional image of a market is a collection of stalls where buyers and sellers exchange goods or services, usually for cash. In rural areas they are usually places where food is sold. Prices – usually based on recent trends or market demand – may be displayed or conveyed verbally and may be subject to negotiation.

Although there are similar markets for hides and skins, most tend to be out of public sight and the way they operate varies according to location and purpose (see Figure 7). The main market place for hides and skins usually exists, however, near the source of the raw material, which is often the slaughterhouse.

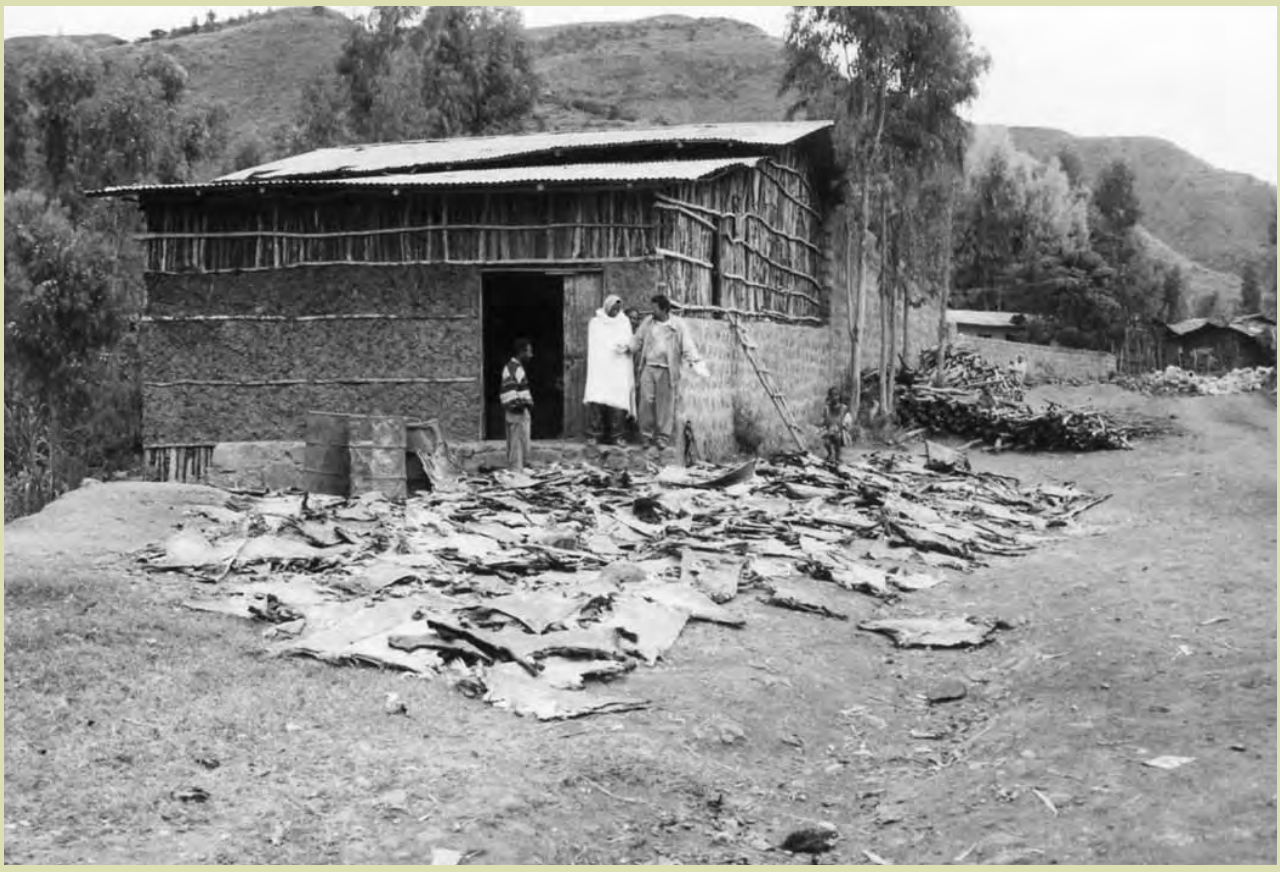


FIGURE 7 Hides and skins market in a rural area in Ethiopia
(Photo by I. Leach)

The producer's main concern will be to obtain the highest possible price per piece, but other factors that may be important include:

- price determination: according to piece, to weight, to grade or to type of preservation;
- type of payment: cash or credit;
- timing of payment: at collection, at delivery or after a fixed or agreed time;
- contractual obligations: agreement to buy a certain number of hides and skins or to buy over a certain period of time.

Other market opportunities may arise during the course of distribution of the hides and skins, or between processing and delivery to the tanner and eventually to the global market (see Figure 8).

The global market for hides and skins is increasingly important. In the past, many countries had a laissez-faire attitude to hides and skins and allowed export in the raw state. Some countries then looked upon them more seriously as a national resource of strategic importance and prohibited exports in unprocessed form. Domestic processing of hides

FIGURE 8 Tanners at work treating hides in Morocco
(Photo: © FAO/22387/A. Gandolfi)

and skins was considered to provide extra employment, while adding value to manufactured products destined for export, as in Ethiopia in the 1970s and 1980s.

Market intelligence

In the hides and skins trade, just as in any other segment of the business world, taking risks can be rewarded or penalized by profits or losses. Knowledge is crucial in reducing risks and increasing the likelihood of profit. In most businesses, market intelligence – including knowledge about potential buyers or consumers – is the most important information that an entrepreneur can have.

Market intelligence involves more than simply collecting data related to local prices for hides and skins. It includes the provision of a comprehensive and up-to-date picture of all factors affecting the hides and skins trade, whether it be local, national or international. Without market intelligence, time, effort and expense will be lost trying to find buyers. Knowledge of markets and marketing skills is necessary for following a proactive approach to planned sales, rather than simply relying on opportunistic or reactive selling.

For a small trader who works locally, market intelligence may consist only of information about buying and selling prices and the situation of competitors. However, in the case of large trading operations that have large stockpiles of materials and operate in many markets there is the need for considerably more information. They must have some idea of both current and future trends in prices. Historical data on prices for hides and skins are available from a number of sources, including trade magazines and various Internet sites.

Historical data does not, however, necessarily indicate what will happen in the future. It needs to be examined together with other information and interpreted accordingly. For example, the general state of the economy – global, regional or national – strongly influences specific national and international trends in the demand for hides and skins. When the economy is good, people tend to spend more on shoes, but when it deteriorates they spend less. This is a clear indicator that allows producers and traders to predict changes in the demand for leather and hence for hides and skins.

Economies and markets that encompass hides and skins are dynamic. Even a hides and skins trader who has what appears to be a secure and reliable outlet for products is wise to keep informed of alternatives, to remain aware of any risks and be prepared for worst-

case scenarios. This is the essence of good marketing. Although one established outlet for hides and skins may disappear it does not necessarily mean that all options have been lost. Identifying or anticipating trends in prices and accommodating the associated profit or loss is all part of the trader's job.

Sales are an important part of the marketing process, but a great deal of other work is needed prior to selling if a business is to continue and prosper. If market research has been undertaken correctly and information has been gathered about potential customers, their locations and their requirements, selling should be relatively simple and straightforward.

Marketing procedures

Marketing procedures that apply to business functions can be classified according to the four Ps – product, promotion, place and price. The nature of these component activities will vary according to the entrepreneur and according to the place occupied by an enterprise in the production and supply chain.

Product

Buyers collecting directly from slaughterhouses are often restricted to buying whatever types of materials happen to be available – cattle hides, sheep skins or goat skins. For each type there are basic differences which may be compounded by preservation processes. To take two extreme examples, a wet-salted and heavily-woolled sheepskin is not the same as a shade-dried goatskin. A shade-dried goatskin from West Africa is not the same as a shade-dried goatskin from Eastern or Southern Africa. Some products, such as Ethiopian hair-sheep skins, Scandinavian cattle hides and Nigerian goat skins, have established reputations in certain parts of the leather industry. In marketing terminology they have achieved the status of a market brand.

Promotion

If hides and skins of a particular type or from a particular location are considered especially attractive there is good reason to promote them on this basis. Promotions of this type usually require subjecting the product to a grading system.Although grading systems have limitations they provide essential information that can facilitate the marketing of hides and skins. They must be credible, however, and be supported by documentation. It is important to note in this respect that most buyers of hides and skins value consistency more than anything else.

Most tanners do not expect their raw materials to be perfect,but they do expect them to be consistent with

previous supplies. Accurate labelling from the very start of production and processing is therefore essential.

Place and price

In the case of hides and skins, place and price are closely linked. The nature of the supply chain means that there tends to be a funnelling effect with a smaller number of buyers at each stage. This results in a progressive decrease from a vast number of producers to a relatively small number of exporters.

Previously, when the collection and distribution of hides and skins was operated as a parastatal enterprise in many countries, selling was done through clearly defined channels at set prices. Many of the hides and skins that were destined for export would ultimately have been sold at auction or through private agreements based on internationally set prices.

With the liberalization of trade in most countries, buying and selling hides and skins is now entirely unrestricted and prices are subject to negotiation. For negotiations to be completed to the satisfaction of all parties, it is important that each party has access to the sort of marketing information referred to above, together with an appreciation of some of the financial factors involved.

Financing

In presenting the case for generating income by producing and trading in hides and skins this booklet examines the importance of technical operations, marketing and financing. These three activities are the core of almost any business enterprise. Of the three, finance is undoubtedly the most important and arguably the cause of most problems and failures.

Gaining access to financial services that adequately meet the needs of the business is often the most important precondition to establishing and managing a successful hides and skins enterprise. Knowing that hides and skins are available, how to process them and how to sell them might appear to be all that is needed to start this type of business. It will not, however, be sufficient to ensure the successful operation of such a business.

Operating expenses

Unlike many other businesses, the hides and skins business requires low investment costs. The capital costs associated with equipment are generally low because of the fact that most of the items involved are cheap or can be improvised easily.

Entrepreneurs need enough capital to cover the relatively high operating costs associated with this business; the main items of expenditure are listed in Table 2, on the following page. Chemicals for treatment include salt, bactericides, fungicides and insecticides, plus pesticides for controlling rodents. Hides – especially fresh hides – and skins are bulky and can be heavy. Transporting them over long distances involves a great deal in terms of the cost for vehicle fuel, maintenance, etc. Processing the raw materials also necessitates the use of storage facilities and treatment chemicals.

With the exception of a few very small operators anyone involved in the hides and skins trade will need to invest some capital in order to operate the business. If they do not have funds they must acquire them from other sources. In this case it is imperative to carry out a cash-flow analysis to identify possible credit needs prior to engaging in any business activity. Once this is done then the best ways of financing the enterprise need to be determined.

TABLE 2 **Description of expenditures for a small-scale hides and skins business**

Hides and skins	**Storage expenses**
Purchase costs, interest charges on money borrowed to buy hides and skins, interest income lost by spending money on hides and skins.	Rent, depreciation of owned buildings, deterioration of materials during prolonged storage, protection against pests such as rodents, etc.
Equipment	**Transport**
Fleshing/trimming knives, fleshing/grading tables, washing tubs, drying frames and shed, strings, pallets, baling press for dried hides, scales, etc.	Vehicle, fuel and labour costs to transport hides and skins from the slaughterhouse to merchant's premises to market or the next link in the supply chain.
Chemicals	**Market intelligence**
Salt, bactericides, fungicides, pesticides, and insecticides (for rodents).	Up-to-date information on prices, trends, current buyers, etc.
Labour	**Contingencies**
Personnel for the collection, transportation, fleshing, preservation, weighing, labelling, grading and storing of hides and skins, as well as on-site security.	Decrease in the value of hides and skins during the course of storage (after the original purchase and before any subsequent sale).

Financing for businesses is either long-term, involving more than one year, or short-term, involving less than one year. If a business needs to purchase a building in which to process and store hides and skins or a vehicle to transport goods, a substantial sum of money will be needed. Any loan used to buy these assets is therefore likely to take a long time to repay. Conversely, the money needed to buy and store hides and skins pending resale can be repaid after a short time.

The distinction between long-term and short-term financing is significant for a number of reasons. In general, much more work is required to acquire long-term financing from a bank, but the rate of interest will be lower

than for short-term financing. While long-term financing is relatively inexpensive, it should be understood that borrowing too much money on a long-term basis may burden the business unnecessarily. Moreover, some banks may not be prepared to lend sums of money on a long-term basis below a certain minimum level.

Irrespective of how much long-term and short-term financing is required to run a business, most financial institutions require the owner of the business to provide some portion of the funding themselves. This is called the owner's equity. It provides some guarantee of the owner's commitment to the enterprise as well as guaranteeing collateral to secure repayment of at least some of the loan if the enterprise fails.

Possible sources of finance

An entrepreneur seeking to establish a business in hides and skins can choose among informal and formal financing mechanisms, ranging from the use of personal resources, borrowing from family and friends, joining a rotating savings and credit group, accessing financial services at a local microfinance organization, or going to a commercial bank. In some developing countries, entrepreneurs can access financing for small-scale businesses through grant programmes under rural development initiatives.

Microfinance is a fairly recent innovation, designed to remedy some of the problems that small businesses have with the conventional banking system. Microfinance lenders provide small loans to entrepreneurs to finance business enterprises that would not be considered by conventional banks.

Irrespective of the source of outside financing provided to an entrepreneur, it is likely that the provider will require some reassurance about the viability of a hides and skins enterprise. This usually requires preparation of a business plan describing all the activities of the proposed enterprise, especially the scale and scope of operations, marketing strategy and tactics, details of financial arrangements, cash flow projections, expected sales, and incomes and costs.

Selected further reading

FAO. 2001**.** *Manual for the humane handling, transport and slaughter of livestock*, by P.G. Chambers & T.Grandin, Rome.

FAO. 1999**.** *Enhancing farmer's financial management skills*, by J.Heney, FAO/GTZ Agricultural Finance Revisited (AFR) No. 6, Rome.

FAO. 1995**.** *Hides and skins for the tanning industry*, by I.B. Leach, Rome.

FAO. 1993. *Commodity review and outlook*, Rome.

FAO. 1992a. *World statistical compendium for raw hides and skins, leather and leather footwear, 1972–1990*, Rome.

FAO. 1992b. *Construction and operation of medium-sized abattoirs in developing countries*, by F. Veall, Rome.

FAO. 1988. *Standard design for small-scale modular slaughterhouses*. Rome.

FAO. 1986. *The world hides, skins and leather products economy: global analysis of recent developments and future outlook*, Rome.

FAO. 1985a. *Hides and skins improvement in developing countries*, by R.G.H. Elliott**,** Rome.

FAO. 1985b. *Slaughterhouse cleaning and sanitation*, by T. Skaarup, Rome.

FAO. 1985c. *Manual for the slaughtering of small ruminants in developing countries*, by J.A.Clotty, Rome.

FAO. 1983. *Manual for animal health auxiliary personnel*, Rome.

FAO. 1975.*Chemistry and technology of novelty leather*, by K.H.P. Fuchs**,** Rome.

FAO. 1978. *Training manual for hides and skins improvement personnel*, by I. Hussein, Lusaka.

FAO. 1968. *Hides and skins improvement and by-products industries*, by E. Knew**,** Rome.

FAO. 1967. *Processing and utilization of animal by-products*, by I.Mann, FAO Agricultural Development Paper No 73, Rome.

FAO. 1955. *Flaying and curing of hides and skins as a rural industry*, by A. Aten, R.F. Innes, & E. Knew, Rome.

Laut, A.C. 1921. *Fur farming for broadtail, Persian lamb, Astrakhan and Krimmer*, Macmillan Co., New York.

Wilson, R.T. 1992. Goat and sheep skin and fibre production in selected sub-Saharan African countries, *Small Ruminant Research* 8: 13-29.

Sources of further information and support

American Leather Chemists Association
Texas Tech University
PO Box 45300
Lubbock
Texas 79409-5300
USA
Tel: +1 806 7427296
Fax: +1 806 7427298
http://www.orgs.ttu.edu/leatherresearchinstitute

British Leather Confederation
Kings Park Road
Moulton Park
Northampton NN3 6JD
UK
Tel: +44 1604 679952
Fax: +44 1604 679998
http://www.blcleathertech.com

British School of Leather Technology
University College of Northampton
Park Campus
Boughton Green Road
Northampton NN2 7AL
UK
Tel: +44 1604 735500
Fax: +44 1604 721625
http://www.nene.ac.uk

Common Fund for Commodities
Willemshuis
Stadhouderskade 55
1072 AB Amsterdam
The Netherlands
Tel: +31 20 5754949
Fax: +31 20 6760231
http://www.common-fund.org

Confederation of National Associations of Tanners and Dressers of the European Union
Rue Belliard 3
B-1040 Brussels
Belgium
Tel: +32 2 5127703
Fax: +32 2 5129157
http://www.euroleather.com/

Food and Agriculture Organization of the United Nations
Via delle Terme di Caracalla
00153 Rome
Italy
Tel: +39 06 57971
Fax: +39 06 57053152
http://www.fao.org

Leather Biz
News portal to complement World Leather magazine
http://wwwleatherbiz.com

International Council of Hides, Skins and Leather Traders Associations
Douglas House
Douglas Road
Melrose TD6 9QT
Roxburghshire
UK
Tel: +44 1896 822233
Fax: +44 1896 823344
http://www.ichslta.org

International Council of Tanners
Leather Trade House
Kings Park Road
Moulton Park
Northampton NW3 6JD
UK
Tel: +44 1604 679917
Fax: +44 1604 679998
sec@tannerscouncilict.org

International Labour Office
4 Route des Morrillons
CH-1211 Geneva 22
Switzerland
Tel: +41 22 7996111
Fax: +41 22 7988685
http://www.ilo.org

International Organization for Standardization
Case Postale 56
CH-1211 Geneva 20
Switzerland
Tel: +41 22 7490111
Fax: +41 22 7333430
http://www.iso.ch

International Trade Centre
Palais des Nations
CH-1211 Geneva 10
Switzerland
Tel: +41 22 7300111
Fax: +41 22 7334439
http://www.intracen.org

International Union of Leather Technologists and Chemists Societies
British School of Leather Technology
Northampton NN2 7AL
UK.
Tel: +44 1604 735500
Fax: +44 1604 711183
http://www.iultcs.org/

Natural Resources Institute
Park House
Bradbourne Lane
Aylesford ME20 6SN
Kent
UK
Tel: +44 1732 878686/7
Fax: +44 1732 220498/9
http://www.nrinternational.co.uk

Society of Leather Technologists and Chemists
38 Roseholme Road
Northampton NN1 4TQ
UK
Tel/fax +44 1604 635932
http://www.sltc.org

United Nations Conference on Trade and Development
Palais des Nations
CH-1211
Geneva 10
Switzerland
Tel: +41 22 9071234
Fax: +41 22 9070043
http://www.unctad.org

United Nations Environment Programme
PO Box 30552
Nairobi
Kenya
Tel: +254 2 621234
Fax: +254 2 623927
http://www.unep.org

United Nations Industrial Development Organization
Vienna International Centre
PO Box 300
A-1400 Vienna
Austria
Tel: +43 1 26026
Fax: +43 1 2692669
http://www.unido.org

Notes

Notes

HIDES AND SKINS FROM DOMESTIC LIVESTOCK ARE POTENTIALLY VALUABLE AGRICULTURAL PRODUCTS, ESPECIALLY SUITED FOR EXPORT. Markets for finished leather products have grown, with much of the impetus coming from the fashion industry. In the rural areas of developing countries, the processing of hides and skins is often neglected or undertaken incorrectly, but can provide much needed employment and extra income – leading to improved livelihoods for rural dwellers. This booklet outlines the opportunities for generating income by producing and trading in hides and skins. It is hoped that it will provide valuable information to people and organizations providing advisory, business and technical support services to farmers and entrepreneurs attempting to exploit the commercial opportunities arising from the better utilization of hides and skins.

Photo: © FAO/12616/P. Rocher