

A BLUEPRINT
for
THE AFRICAN LEATHER
INDUSTRY

**A development, investment and trade guide
for the leather industry in Africa**

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Foreword

The African leather industry is an important strategic sector for the economic and industrial development of many African countries. It has an abundant and renewable resource base in Africa's large population of cows, sheep and goats. It is labour-intensive with the potential to be a major source of employment all along its supply chain. It has, however, major obstacles to overcome to realize this potential. The main problem lies in the collection and processing of its rich supply of hides and skins. The predominant practice is to keep animals for their meat and not for their hides and skins. Availability of hides and skins for processing is therefore determined by the rate of meat consumption.

The Common Fund for Commodities (CFC), which is already financing projects that will lead to increased collection, better preservation, improved quality and better processing of hides and skins, has recognized the need for a comprehensive and integrated approach to the problems in the African leather industry and has joined with the Food and Agriculture Organization (FAO), the International Trade Centre (ITC), and the United Nations Industrial Development Organization (UNIDO) in preparing this development, investment and trade guide for the leather industry in Africa. CFC and UNIDO financed studies at each stage of the leather supply chain to identify the major constraints and opportunities. The findings of these studies were then discussed by a panel of experts at Africa's premier leather event, 'Meet in Africa 2002', in Tunis from 7th to 9th October 2002. *A Blueprint for the African Leather Industry* has been developed from these studies.

A Blueprint for the African Leather Industry is designed to be used by development agencies, policy makers, industrialists, financiers, investors, traders and farmers to open up new opportunities for adding value to and commercially exploiting hides and skins, and to thereby make a significant contribution to economic and industrial development in Africa.

CFC and UNIDO would like to express their appreciation for the contributions of the other intergovernmental agencies to the successful development of the Blueprint: FAO, which hosted the Intergovernmental Sub-Group on Hides and Skins Secretariat, and ITC, which organized the 'Meet in Africa 2002' event. It is our hope that this co-operation will lead to a greater strengthening of public-private partnerships in the development of Africa's leather industry. Last but not least, the expertise and information provided by experts, consultants and institutions is greatly appreciated.

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Acronyms

| | |
|---------|--------------------------------------------------------------------------------------|
| ACP | African, Caribbean and Pacific countries |
| AFLAI | African Federation of Leather and Allied Industries |
| ASSOMAC | Associazione Nazionale Costruttori Macchine dell'area pelle |
| B2B | Business-to-business |
| CAD | Computer aided design |
| CAM | Computer aided manufacturing |
| CEPEX | Le Centre de Promotion des Exportations (Tunisia) |
| CFC | Common Fund for Commodities |
| COMESA | Common Market for Eastern and Southern Africa |
| COTANCE | Confederation of National Associations of Tanners and Dressers of the European Union |
| ECOWAS | Economic Community of West African States |
| EDE | Electronic data exchange |
| EMAS | Eco-Management and Audit Scheme (EU programme) |
| EPZ | Export Processing Zone |
| ESALIA | Eastern and Southern African Leather Industries Association |
| ETP | Effluent treatment plant |
| FAO | Food and Agriculture Organization (United Nations) |
| FDI | Foreign direct investment |
| GDP | Gross domestic product |
| GSP | General System of Preferences |
| HRD | Human resources development |
| IATRC | International Agricultural Trade Research Consortium |
| ICHSLTA | The International Council of Hides, Skins & Leather Traders' Associations |
| ICT | Information and communication technology |
| ICT | International Council of Tanners |
| ILRI | International Livestock Research Institute |
| IMF | International Monetary Fund |
| ISEFI | Information Service for the European Footwear Industry |
| ISO | International Standards Organization |
| IT | Information technology |
| ITC | International Trade Centre |
| LAT | Leather Association of Tanzania |
| LLPI | Leather and Leather Products Institute |
| MoA | Ministry of Agriculture |
| MVA | Manufacturing value added |
| NEPAD | New Partnership for Africa's Development |
| NGO | Non-governmental organization |
| NICs | Newly industrialized countries |
| OBM | Original brand manufacturing |
| OECD | Organization for Economic Co-operation and Development |
| OEM | Original equipment manufacturing |
| PPP | Public-private partnerships |
| PR | Public relations |
| R&D | Research and development |
| RALFIS | Regional Africa Leather and Footwear Industry Scheme |
| SMEs | Small and medium sized companies |
| SSA | Sub-Saharan Africa |
| T & TA | Training and Technical Assistance |
| TILT | Tanzanian Institute for Leather Technology |
| TNCs | Trans-national companies |
| TPCSI | Training and Production Centre for the Shoe Industry |
| UNIDO | United Nations Industrial Development Organization |

Preface

A Blueprint for the African Leather Industry is the outcome of a major initiative that has been taken to examine the difficulties faced by the African leather industry, and to identify and implement solutions. The United Nations Industrial Development Organization (UNIDO), the International Trade Centre (ITC), and the Common Fund for Commodities (CFC), at the request of the Food and Agriculture Organization (FAO) of the United Nations, commissioned a number of studies by leading experts. These were presented and discussed at an Expert Group Meeting on ‘Trade Development in the Leather Industry in Africa’ held during Meet in Africa 2002¹² in Tunis from 7th to 9th October 2002. This meeting brought together experts from these organizations, leather experts representing various African countries, and participants from the many leather sector enterprises.

The Expert Group Meeting recommended the commissioning of a blueprint based on the major findings and recommendations in the various studies, which would serve as a guide for designing policy instruments to tackle the problems in the African leather industry. *A Blueprint for the African Leather Industry* is derived from the ten studies, listed below, that were presented at the Expert Group Meeting, and incorporates the recommendations contained in the final report of the Meeting, produced in December 2002. References are made to these studies throughout the Blueprint. The name of the commissioning agency is given after each study.

Expert studies:

1. Milone, C. (2002): The effects of globalization on the African leather sector (UNIDO).
2. Kiruthu, S. (2002): Benchmarking the African leather sector (UNIDO-ESALIA).
3. Salazar de Buckle T. (2002): Assessment of production and management barriers in the African leather and leather products value chain: macroeconomic policies, trade and investment and the institutional environment (UNIDO).
4. Jabbar M.A., S.Kiruthu, B.Gebremedh and S. Ehui. (2002): Essential actions to meet quality requirements of hides and skins and semi-processed leather from Africa - case studies in four African Countries (CFC).
5. Leach I. (2002): Marketing requirements of importers of African hides (CFC).
6. Mosconi G. (2002): Innovative models in the field of business (UNIDO).
7. Cipriani, S. (2002): Quality control and management of the African leather industry (UNIDO).
8. Favazzi A. (2002): The impact of the main environmental policies and protection measures on Africa’s leather sector (UNIDO).
9. Gibb Wudhipan Y (2002): Prospects for e-enabling international trade in the African leather industry (ITC).
10. Dengu C.(2002): Financial strengthening of the leather supply chain in Africa (CFC).

The studies deal with all the components of the African leather supply chain from the production and handling of raw materials, in animal husbandry and slaughtering, to the

¹ Meet in Africa is an example of a business initiative to improve the image of Africa as a supplier of leather and leather products. It provides an opportunity for participating enterprises, from both within and outside Africa, to establish business contacts, thus strengthening African leather trade and widening the industrial and technical know-how in the sector. Meet in Africa included the following events: general meeting of the African Federation of Leather and Allied Industries (AFLAI); the Expert Group Meeting; buyer-seller and joint venture meetings, factory visits and the Trade Fair.

² The studies were carried out by experts from Associazione Nazionale Costruttori Macchine dell’area pelle (ASSOMAC), International Livestock Research Institute (ILRI), UNIDO, and Triple Consultants.

processing, manufacturing and marketing of intermediate and final products. Field visits were made to selected leather producing countries in Africa for studies 4 and 5, and questionnaires sent out for studies 1, 3, 7, and 8. Countries were selected as being representative of different geographical regions, and of the different problems in the industry. Discussion at the meeting focused particularly on improving competitiveness, and on the key roles of the government and civil society in building a business environment that would provide the conditions and transparency needed to attract international investment.

Pullout supplement. A separate pullout Table of Recommendations is included with the Blueprint. This summarizes the key recommendations in the Blueprint and is designed for quick reference, convenient filing, and ease of use in meetings and discussions.

Terminology note: The term 'leather supply chain' is used rather than the more precise term 'leather and leather products supply chain' for ease of reading.

Executive Summary

The gap between resources and production

African countries have 20% of the world's cattle, sheep and goats, but produce only 14.9% of world output of hides and skins. They have 10% of the world's cattle but produce only 4.5% of bovine hides. Their exports of hides and skins have fallen in recent years from 4% to 2%, and their tanning capacity from 9.2% to 6.8%. At a time when other developing countries have substantially increased their share of world footwear production in relation to developed countries, African countries have shown only a modest increase. Import penetration of their domestic leather footwear markets by other developing countries is estimated at 73.3%.

This gap between resources and production shows the considerable potential of the African leather industry. Reducing this gap is especially critical in an important strategic sector for the economic and industrial development of many African countries. Not only does this sector have an excellent and renewable resource base, but it is also labour-intensive with the potential to be a major source of employment all along its supply chain. In eight of the nine countries surveyed in the studies from which this Blueprint is derived, the leather and shoe manufacturing sub-sector already provides 4% to 5% of total industrial employment, with contributions to MVA of 2.9% in Egypt, 8.3% in Tunisia and 74% in Ethiopia, where the cattle population is the highest in Africa, and close to 1% in the remaining five countries.³ Clearly the realization of the African leather industry's potential would bring significant economic gains to the continent.

A Blueprint for the African Leather Industry has been commissioned to identify ways in which this potential can be realized. Its purpose is to serve as a guide for designing policy instruments and activities that will assist the different players in the leather supply chain - the government, the private sector and international organizations - to tackle, jointly and in an integrated manner, the problems that affect the African chain, applying cost-effective solutions within the context of globalization and interregional trade.

The African leather industry is not without its positive indicators:

- Institutions have been set up to introduce and reinforce standards and quality.
- Databases have been established and are in operation to support the industry, though not all with the same level of efficiency.
- Standards have been, or are in the process of being, harmonized at the national level in all the nine countries surveyed, a step that facilitates transactions and greatly reduces costs.
- Some advances have been made towards general macroeconomic stability and a more stable political environment, though still with room for improvement.
- The reduction of environmental pollution is now recognized as a factor of competitiveness.
- Trade promotion strategies have been designed and support institutions established, although their coordination needs to be improved.

The problems, however, that negatively affect the growth and competitiveness of the African leather industry are many. These include:

- The quality of hides and skins.

³ Years 1997-1999, UNIDO World Industrial Data Base. Countries: Egypt, Tunisia, Morocco, Ethiopia, Senegal, South Africa, Tanzania, Benin, and Kenya.

- A poor and deteriorating infrastructure of roads, power supply and telecommunications that affects all the components of the chain.
- Low levels of transparency in business operations.
- Insufficient experience in trade negotiations.
- Inadequate levels of technological development.
- Low labour productivity, poor management, and out-dated training services.

These, moreover, are the kind of problems that discourage FDI, joint ventures and sub-contracting, all of which are important mechanisms for participating in the global leather chain, and for gaining the transfer of technology and know-how and less expensive capital.

A supply chain concept

A Blueprint for the African Leather Industry takes a supply chain perspective. It regards the various components of the African leather industry as stages in a supply chain, from animal husbandry through to the production and marketing of leather and leather products. The value of this perspective is that it provides an integrated approach to the analysis of problems throughout the industry. It supports the generation of solutions in specific components that will positively impact other components, and of solutions in the chain as a whole that are most cost and resource effective.

Outline of the Blueprint

The Blueprint consists of four parts, with seven chapters, followed by appendices and with a separate Table of Recommendations supplement.

Part One places the African leather supply chain in the context of the global supply chain.

Chapter One presents:

- The concept of the supply chain in the leather and leather products industry, briefly describing the different components of the chain, and the links between them.
- Dynamic changes occurring in the global leather supply chain, particularly in the geographical distribution of raw materials, and of intermediate and finished products for the global markets.
- The market position, both international and domestic, of the African leather and leather products.
- Factors determining the competitiveness of the African leather supply chain, as well as recent positive developments.

Part Two examines the production of hides and skins in Africa, and looks at ways that this could be improved.

Chapter Two: Animal Husbandry, presents an analysis of animal husbandry practices conducted in four representative African countries, and examines development, trade, and policy issues.

Chapter Three: Slaughterhouse Management, deals with technical and policy issues related to the slaughter of animals, and their impact on the quality of hides and skins and the products processed from them.

Part Three examines the processing and manufacturing of leather and leather products, and presents recommendations for improvement.

Chapter Four: Tannery management, examines technical, investment, policy and environmental issues related to the tanning of hides and skins for the production of leather.

Chapter Five: The Manufacture of Leather Products, examines issues of development, trade, human resources development, and quality and competitiveness in the leather products industry.

These chapters emphasize the need to modernize enterprises, and to improve the service infrastructure for training and technical assistance, and the provision of integrated services.

Part Four deals with market development and trade promotion.

Chapter Six: Marketing of Hides and Skins, Leather and Leather Products:

- Reviews the market position of African leather and leather products, and the negative competitive factors in trade and marketing that contribute to this.
- Identifies the implications for the African supply chain of current trends and requirements in the global leather and leather products industry, and in the trading policies and import regulations of importing countries.
- Describes mechanisms that could be used to enable African enterprises to participate more effectively in the global supply chain.
- Suggests initiatives to support African enterprises' participation in the global supply chain.
- Presents recommendations for improving the market position, both global and domestic, of African leather and leather products.

Chapter Seven: Business Strategies and Tools, presents business mechanisms for developing the African leather supply chain:

- Macro policies to increase FDI inflows to African countries.
- Strengthening the financing system for the leather supply chain in Africa: the financing needs of different components of the leather supply chain; the potential sources of finance; guidelines on how to present proposals to financial institutions; the main components of a structured finance system, and the advantages and challenges of introducing such a system in Africa.
- A discussion of electronic trade and its application in the African leather supply chain.
- Benchmarking as a tool for understanding the position of African raw materials, leather and leather products in the global market.

Appendices: A number of appendices have been included which provide useful reference material on norms and standards, specialized institutions and services, contact persons and institutions, and importers' requirements, all of which should be very useful for all actors in the African leather supply chain.

Table of Recommendations: This is a comprehensive table of recommendations on the development of policies; the improvement of animal resources and hides and skins, and of tanning and the manufacture of leather products; training and technical services; the marketing of hides and skins, and of intermediate and finished products; information technology; and finance. It specifies the roles to be played and the activities to be undertaken by the agents of improvement: governments, the private sector, producer associations, producers' federations, finance institutions, international organizations, including bilateral cooperation and NGOs, and regional economic agreements and regional cooperation agreements. It is included with the Blueprint as a separate pullout

supplement designed for quick reference, convenient filing, and ease of use in meetings and discussions.

Actions and actors

The Blueprint sees the development of the African supply chain as requiring several primary actions:

- The design of comprehensive strategies and related policies.
- The application of a large number of interrelated activities to improve governance, information flow, the modernization of services to industry and infrastructure, and the introduction of updated technologies and investments throughout the supply chain.
- The modernization of trade mechanisms and institutions, and the building of training institutions to improve productivity throughout the chain.
- The strengthening of the capacity of the local banking system to deal with leather as a commodity, together with the setting up of a structured finance system.
- The removal of barriers to FDI and inter-regional trade.
- Inter-regional cooperation to improve market access.

The government and the private sector should undertake these actions jointly, with the assistance of international organizations specialized in the different areas of the supply chain. Given the number of problems that have to be simultaneously addressed along the supply chain to attain the maximum impact, there will be a need to prepare and implement integrated programmes.

This Blueprint, with the Table of Recommendations that forms its core, will provide a platform for initiating dialogue and designing partnership initiatives. Mechanisms such as Public-Private Partnerships (PPPs) will promote consultation and dialogue with participants from the public sector, both at the national and the local levels, and from the private sector as represented by associations, federations, chambers of industry and commerce, trade unions, financial institutions, and research and university institutions. International organizations such as UNIDO, UNDP, FAO, ITC, CFC, the World Bank, and the African Development Bank should participate actively, as should NEPAD⁴ with its capacity to accelerate the solution of problems related to regional infrastructure and the promotion of intra-regional trade. These international organizations are seen as having an essential role as catalysts of the dialogue in supporting the technical assistance and investment components and partnerships that will result from this dialogue, and in monitoring the progress made as a result of the dialogue.

Vision and goals

The challenge faced by the African leather supply chain, enormous though it may be, is undoubtedly one that can be met. With a major strength in the availability of raw hides and skins, and with global forecasts⁵ that world demand for leather in the coming decade will be greater than supply, the African leather industry is well capable of realizing the vision espoused at the Expert Group Meeting and based on the progress observed in several countries in surveys carried out for this Blueprint, of 'A world in which African leather and leather products are seen by local consumers and by consumers in developed countries as having the best quality, design and value for money'. This vision will be realized in the attainment of seven goals:

1. The gap between available raw material resources and the products processed and traded from these resources is substantially reduced.

⁴ NEPAD: The New Partnership for Africa's Development

⁵ Milone 2002

2. A market-oriented approach with a buying system based on value incentives is applied throughout the supply chain.
3. Private sectors and governments are agreed on regional trade initiatives and an approach to trade liberalization.
4. Investment and working capital are available in the form of equity finance and other mechanisms to facilitate production and trade.
5. An improved business environment and the transparency of operations attract FDI.
6. The components of the African leather supply chain are modernized, both technically and managerially, and the quality of human resources and support institutions is of a high standard.
7. The production of footwear and other leather products is driven by the market in the pursuit of import substitution; the promotion of linkages with the global leather supply chain through sub-contracts, partnerships and other alliances; and the development of Africa's own design capacity in the 'Made in Africa' strategic approach.

With the realization of this vision, the African leather supply chain will be able to make an important contribution to the economic and industrial development of the continent.

PART ONE

The global leather supply chain

Chapter 1: The global leather supply chain: the context for the development of the African leather industry

This chapter places the African leather industry in the context of the global leather supply chain. It presents:

- The concept of the supply chain in the leather and leather products industry.
- Dynamic changes occurring in the global leather supply chain.
- The market position of African leather and leather products.
- Factors determining the competitiveness of the African leather supply chain.

The concept of the supply chain in the leather and leather products industry

The fashionable leather shoes, handbags and garments on sale in high street shops around the world are the outcome of a long and varied process that begins with the rearing of cattle, sheep and goats on small farms and large agribusinesses, on the hills and plains and in the valleys, of many very different countries: animals are reared and eventually slaughtered; their skins and hides are recovered, are tanned and become leather; the leather is further processed into leather products; these products are packaged and transported, and marketed and sold around the world.

The shoes that we wear and the other leather goods that we use are not the products of one industry, nor yet of several separate industries, but of an integrated industrial chain, a supply chain where the quality and commercial success of both intermediate and end products is determined by many different factors in the successive stages of the chain – in the selection and purchase of raw materials and components, in the production processes, in marketing, distribution and sales - and finally by consumer demand both at home and abroad.

This concept of the leather industry as a supply chain is central to this Blueprint, and forms the basis of most of the contributory studies produced for the Expert Group Meeting, on which the Blueprint is based. The value of the supply chain concept is that it provides an integrated approach to the analysis of problems and constraints throughout an industry, supporting the generation of solutions in specific components that will positively impact other components, and the generation of solutions in the chain as a whole that are most cost and resource effective.

For example, in the leather industry certain insects leave small marks on animals that can often not be seen when the hides and skins are being recovered and sold, but become evident later in leather processing, and affect quality and price (see Appendix 2). The quality of processed leather can therefore be improved by providing extension services and facilities to farmers and by introducing a price system that will reward hides and skins that are free from such blemishes.

The leather supply chain, presented graphically in Diagram 1.1, begins with animal husbandry, the source of its raw materials. It then has four primary stages - three processing stages and the final stage of marketing:

- Stage 1: The recovery of hides and skins from slaughtered animals on farms and in slaughterhouses.

- Stage 2: The conversion of hides and skins into leather in tanneries, normally requiring substantial investment in equipment. (Box 1.1 describes these processes in detail.)
- Stage 3: The manufacture of leather products, often carried out in labour-intensive small workshops with less need for substantial investment in equipment, or in larger capital-intensive factories.
- Stage 4: The marketing, both domestic and export, of intermediate and end products at different stages of the supply chain. This is the key to success in the modern leather products business. At the global level it is tightly controlled by international marketing agents who have the market knowledge and the wide network of sales channels that allow them to manage the complex supply chain mechanism, contracting production, providing finance and serving the customer on time⁶ (Schmel1998, Magretta 2000).

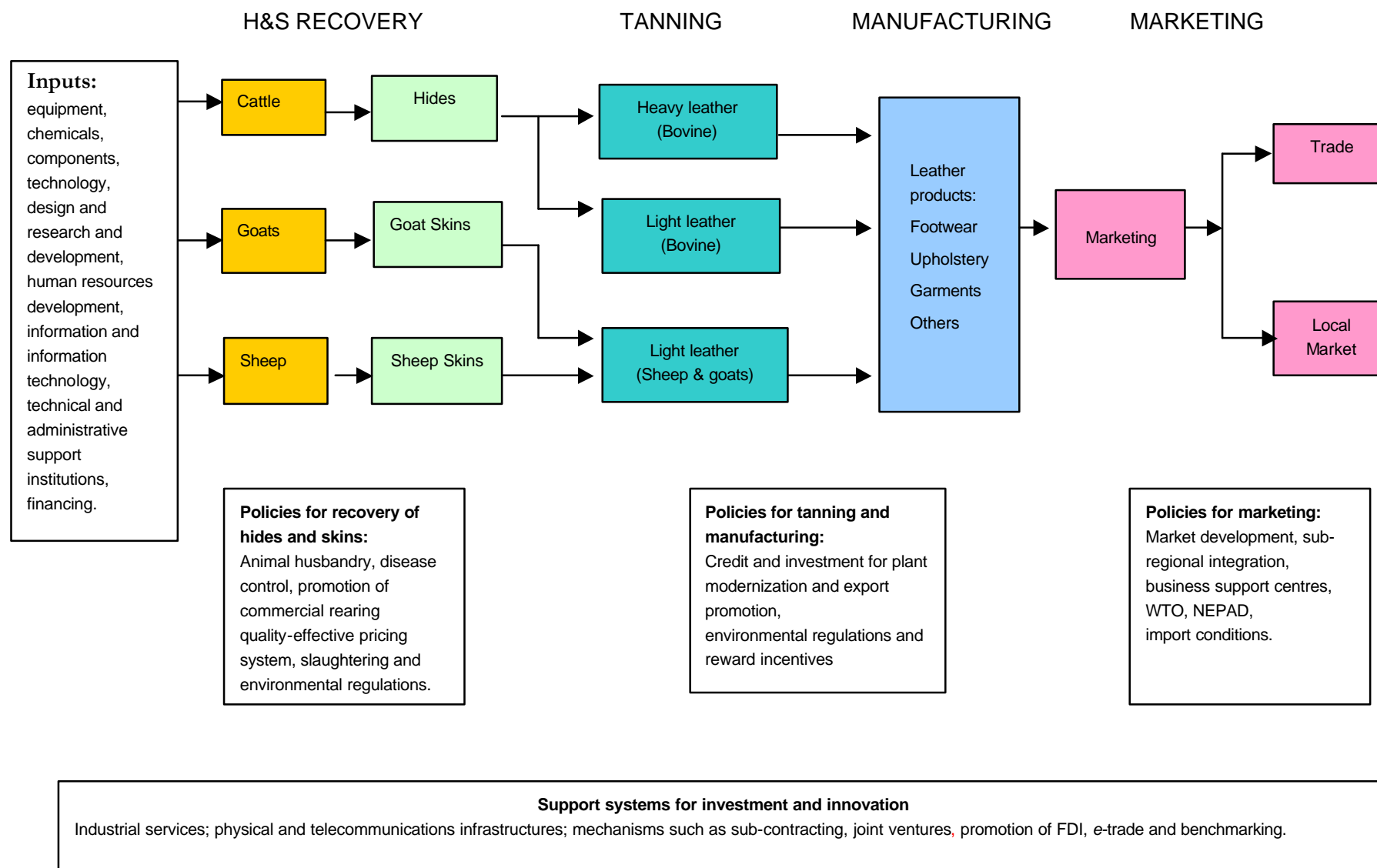
Each of these stages requires inputs, policies and support systems if the whole chain is to function effectively.

- **Inputs** include equipment, chemicals, and components such as laces and buckles; technology, design, and research and development; information and information technology; human resources development; technical and administrative support institutions; and financing.
- **Policies must** be formulated, and strategies developed:
 - *Recovery of hides and skins*: policies on animal husbandry, disease control, the promotion of commercial rearing of animals, a quality-effective pricing system, slaughtering regulations, and environment-protection regulations.
 - *Tanning and manufacturing*: policies on credit and investment for plant modernization and export promotion, environmental regulations, and reward incentives.
 - *Marketing*: policies on market development, sub-regional integration, marketing business support centres, WTO, NEPAD, and import conditions.
- **Support systems for investment and innovation** are required at each of the processing stages, in related services, in improved industrial services, in physical and telecommunications infrastructures, and in the linkages between all the stages of the chain. Such systems must be included in the formulation of policy. There are a number of mechanisms that may be considered: sub-contracting, joint ventures, promotion of FDI, e-trade, benchmarking.

The leather supply chain, with all the inputs, policies and support systems that it requires, is clearly a highly complex system, where problems and constraints, and the search for their solutions, are interrelated. Although the chapters which follow focus on different stages and aspects of the supply chain, it should be kept in mind that the issues examined and the recommendations presented in each chapter, inevitably impact on and are in turn impacted on by those in other chapters.

⁶ The process of globalization has promoted two types of supply chain: the producer-driven chain in the capital intensive and high-technology industries such as the automobile industry, and the buyer-driven chain, to which the leather industry belongs, which is organized around labour-intensive industries such as footwear and garments. In the buyer-driven chain the marketing and manufacturing agents (retailers, branded marketing agencies and branded manufacturers) set up global production networks, principally in developing countries. Enterprises in exporting developing countries produce the finished goods under contract, following the specifications, guidelines and technical advice provided by the purchasing agents. The sale is concluded within three to five weeks after placing the order, as is often the case in the global garments supply chain.

Diagram 1.1 The leather and leather products supply chain



Box 1.1 Converting hides and skins into leather

Steps in leather production

The production of leather from hides and skins involves the treatment of raw materials, i.e. the conversion of the raw hide or skin, a putrescible material, into leather, a stable material. This material is obtained after passing through the different treatment and processing steps described in points 1 to 4. The production processes in a tannery can be divided into four main categories, though the processes employed in each of these categories may change, depending on the raw material used and the final goods that are to be produced.

1. Hides and skins storage and beam-house operations. Upon delivery, hides and skins can be sorted, trimmed, cured (when the raw material cannot be processed immediately) and stored pending operations in the beam house. The following processes are typically carried out in the beam house of a tannery: soaking, de-hairing, liming, fleshing (mechanical scraping off of the excessive organic material) and splitting (mechanically splitting regulates the thickness of hides and skins, splitting them horizontally into a grain layer, and, if the hide is thick enough, a flesh layer).

2. Tannery Operations. Typically the following processes are carried out in the tannery: de-liming, bating, pickling and tanning. Once pickling has been carried out to reduce the pH of the pelt prior to tanning, pickled pelts, e.g., sheepskins, can be traded.

In the tanning process the collagen fibre is stabilized by the tanning agents so that the hide (the raw material) is no longer susceptible to putrefaction. The two main categories of tanning agent are mineral (trivalent chromium salts) and vegetable (quebracho and mimosa).

The tanned hides and skins, once they have been converted to a non-putrescible material called leather, are tradable as intermediate products (wet blue). However, if leather is to be used to manufacture consumer products, it needs further processing and finishing.

3. Post-Tanning Operations generally involve washing out the acids that are still present in the leather following the tanning process. According to the desired leather type to be produced the leather is retanned (to improve the feel and handle of leathers), dyed with water-soluble dyestuffs (to produce even colours over the whole surface of each hide and skin), fat liquored (leathers must be lubricated to achieve product-specific characteristics and to re-establish the fat content lost in the previous procedures) and finally dried. After drying, the leather may be referred to as crust, which is a tradable intermediate product.

Operations carried out in the beam house, the tannery, and the post-tanning areas are often referred to as wet processing, as they are performed in processing vessels filled with water to which the necessary chemicals are added to produce the desired reaction. After post-tanning the leather is dried and subsequent operations are referred to as dry processing. Typically, hides and skins are traded in the salted state, or, increasingly, as intermediate products, particularly in the wet-blue condition for bovine hides and the pickled condition for ovine skins.

4. Finishing Operations. The art of finishing is to give the leather as thin a finish as possible without harming the known characteristics of leather, such as its look and its ability to breathe. The aim of this process is to treat the upper (grain) surface to give it the desired final look. By grounding (applying a base coat to leather to block pores before applying the true finish coats), coating, seasoning, embossing (to create a raised design upon a leather surface by pressure from a heated engraved plate or roller) and ironing (to pass a heated iron over the grain surface of the leather to smooth it and/or to give it a glossy appearance) the leather will have, as desired by fashion, a shiny or matt, single or multi-coloured, smooth or clearly grained surface. The overall objective of finishing is to enhance the appearance of the leather and to provide the appropriate performance characteristics in terms of colour, gloss, and handling, among others.

Dynamic changes in the global leather supply chain

Most of the leather produced today is light bovine leather from small and young animals, with a lesser output of heavy bovine leather from big animals, and leather from sheep and goats. In the manufacture of shoes, light bovine leather is used for shoe uppers, heavy bovine leather for soles, and the leather from sheep and goats for gloves and garments. The leather industry depends on the availability of hides and skins. This is determined by the size of the animal population, the off-take ratio⁷ and the weight per hide and skin recovered.

Between the early 80s and the end of the 90s world output of bovine hides and skins increased by 16%⁸. Most of this growth was concentrated in developing countries⁹, with production actually decreasing in developed regions. Developed regions, however, with a higher off-take ratio and superior marketing and distribution, still account for more than 50% of total world production.

Heavy bovine leather: World production, which had been in decline, increased during the 1990s as a result of a 21% increase in world leather footwear production. Relative growth was highest in the Far East, rising from 25% of total world production in 1990 to 40% in 1999. Most of this increase was in China, which has become the world's largest producer of heavy leather. Production in the Near East, Latin America and Africa remained the same, while production in Europe and the former Soviet Union decreased. (See Figure 1.1.)

Light bovine leather: World production grew by 28% from 1990 to 1999, largely due to an 88% increase in production in developing countries, which raised their share of world output to 57%. The steepest growth took place in the Far East, with a much smaller increase in Latin America. In spite of this substantial growth in the developing world, Africa's global share actually fell slightly during this period (See Figure 1.2.)

Sheepskin and goatskin: World sheepskin production grew by almost 20% during the 1990s. Growth here too was higher in developing than in developed countries. World goatskin production grew by 70% during this period, again two thirds of this taking place in developing countries. Africa's share of world production however remained the same at around 10% (See fig. 1.3 – which does not differentiate between sheep and goats.)

Shoe production: The FAO estimates that between 1997 and 1999, 57.3% of light bovine leather production and 41.1% of leather from sheep and goats was used for the production of shoes, and the remainder for garments, furniture and travel-goods, also a growing market. It estimates that the world output of shoes with leather uppers exceeds 4,200 million pairs (2000-2001), with a 148% growth in production of this type of shoe in developing countries between 1982-2000, representing an increase in their share of global output from 35% to 72% (FAO 2001).

The expansion in leather shoe production was greatest in the Far East (1990-99) but much less in Latin America, and there was a decline in all developed regions. China is the largest producer in Asia using 70% of its leather for the production of footwear. Africa has experienced only a small increase in the production of shoes. (See Figure 1.4.)

Figures 1.1. to 1.4 are from the FAO World Compendium for Raw Hides and Skins and Leather Footwear, 1982 to 2000.

⁷ The ratio between actual recovery of hides and skins and potential recovery.

⁸ FAO 2002

⁹ As a consequence of improvements in husbandry and an expansion in beef production.

FIGURE 1.1: REGIONAL SHARE IN THE WORLD PRODUCTION OF HEAVY LEATHER FROM BOVINE ANIMALS

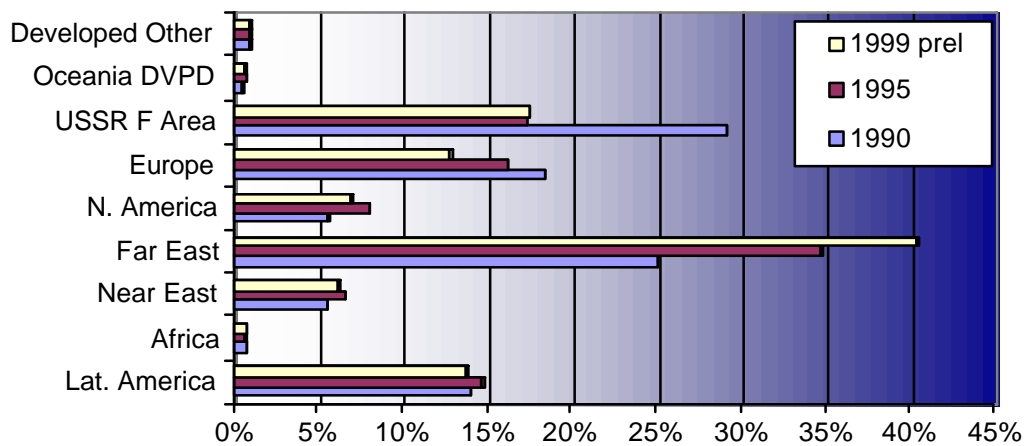


Figure 1.2. REGIONAL SHARE IN THE WORLD PRODUCTION OF LIGHT LEATHER FROM BOVINE ANIMALS

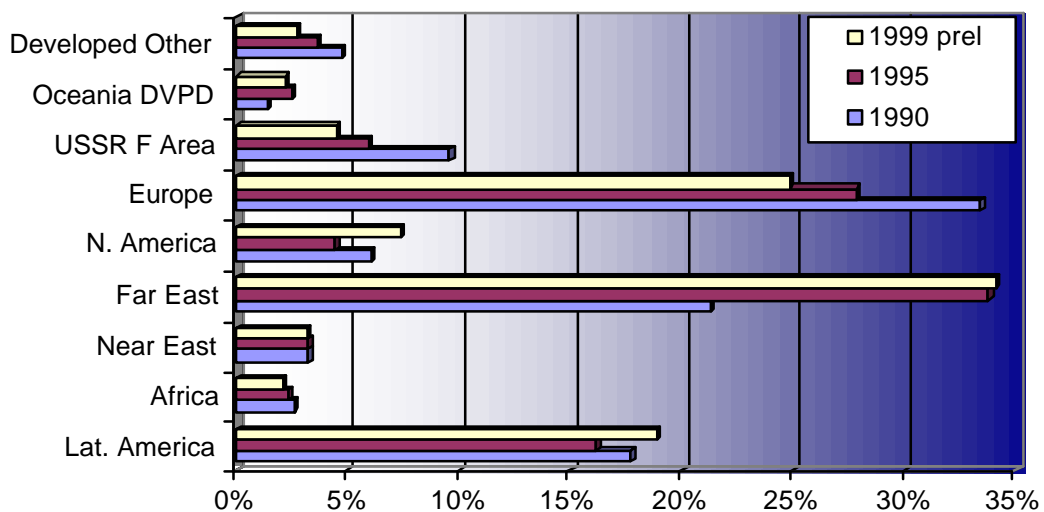


Figure 1.3. REGIONAL SHARE IN THE WORLD PRODUCTION OF LEATHER FROM SHEEP AND GOATS

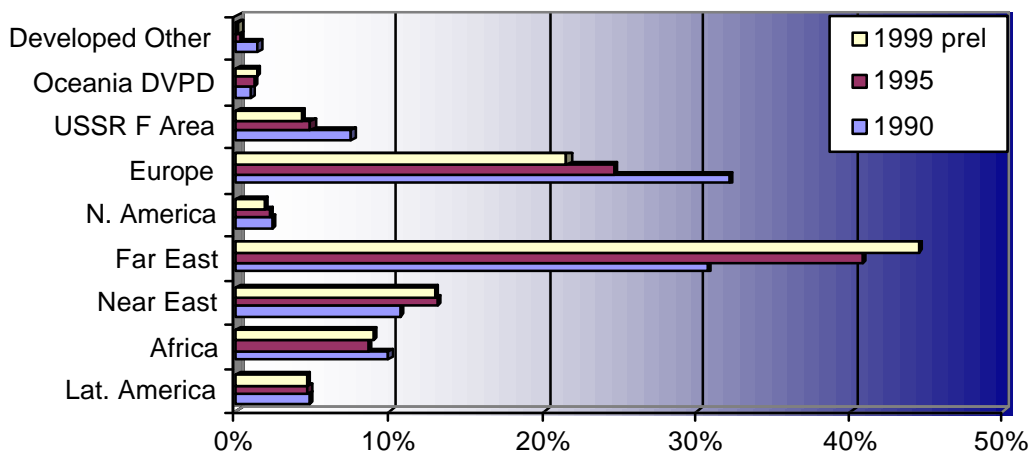
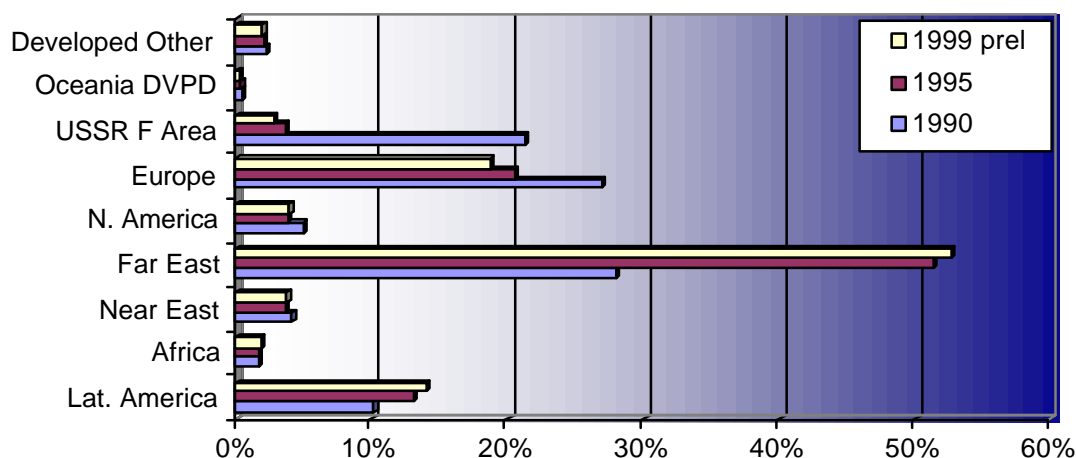


Figure 1.4. REGIONAL SHARE IN THE WORLD PRODUCTION OF LEATHER SHOES



The market position of African leather and leather products.

The African leather supply chain has not kept pace with the substantial growth in the production of leather and leather goods in other developing countries, although the quantity and value of its production and exports have actually increased. This picture becomes more critical when one takes into account the size of the African livestock population. Even the increase in domestic African demand, still modest, is satisfied mainly by either cheap imports from other developing countries, like China, or by second hand goods from developed countries: the percentage of total import penetration in footwear has been estimated at 73.3%.¹⁰ Table 1.1 presents the relative shortfalls in the African supply chain.

Table 1.1 Selected characteristics of the African Leather Supply Chain: 1984-late 90s

| African % of world total | | Remarks |
|----------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cattle, sheep and goats | 20% of world resources - 14.9% of hides and skins output. | Due mainly to constraints in breeding, low recovery rate of hides and skins, poor handling, lack of incentives in the buying systems etc. |
| Cattle | 10% of world resources - 4.5% of hides output. | |
| Exports of hides and skins | Decreased from 4% to 2%. | Due to inefficient recovery of hides and skins and also to export restrictions, and increases in local tanning capacity. |
| Imports of bovine hides | Increased from 4.1% to 5.1% | This is a trend in the developing world, a consequence of the shift of leather production from developed to developing countries. |
| Tanning Capacity | Decreased from 9.2% to 6.8 % | Very large growth in the Far East and Latin America explains the relative decrease in Africa, in spite of an actual increase of 42% in African tanning capacity. |
| Footwear manufacture | | Footwear manufacture is growing slowly, and not responding well to local demand; 73.3% import penetration, particularly from Asia, mainly China |

Source: (FAO 2002)

¹⁰ The African market consumes 506 million pairs of shoes, 371 million of which are imported. South Africa, Egypt and Algeria are the big importers, China being the main supplier.

Factors determining the competitiveness of the African leather supply chain

A range of factors have been identified¹¹ that affect the competitiveness and export development of the African leather supply chain.

Positive competitive factors.

The primary positive factors are the large animal resources available and the potential for improving hides and skins in both quality and image. Progress has been found in several important areas:

1. Institutions have been set up to introduce and reinforce standards and quality in the leather industry.
2. Databases have been set up to support the industry and are in operation, though not all with the same level of efficiency.
3. Standards have been, or are in the process of being harmonized at the national level in some countries¹², a step that facilitates transactions and greatly reduces costs.
4. Some advances have been made towards general macroeconomic stability and a more stable political environment, though there is still some room for improvement.
5. Actions to reduce pollution are being taken in a number of countries, and there have been reductions in environmental pollution from tanning operations. This is now recognized as a factor of competitiveness.
6. Trade promotion strategies have been designed and support institutions established. Assistance may however be required to improve the functioning of the trade promotion systems in several leather producing countries where surveys were carried out for this Blueprint.

Negative competitive factors

The major negative competitive factors are:

1. The quality of hides and skins. This is the primary restriction on the development of the African leather supply chain as a whole. Poor quality is caused by:
 - a. Lack of incentives to producers to improve quality.
 - b. The cultural patterns and lifestyle of traditional livestock producers.
 - c. Price setting that does not encourage quality.
 - d. Lack of grading of raw hides and skins.
2. Poor and deteriorating physical infrastructure and expensive services. These together form the second most common constraint on competitiveness, especially roads, electricity supply, electricity tariffs and telecommunications.
3. Low levels of FDI due to:
 - a. Low levels of transparency in business operations. Although this is a business problem around the world, it is one that must be dealt with. It prevents the creation and maintenance of an acceptable business environment and deters FDI in-flows.
 - b. The level of marginal corporate taxes. Lowering these taxes below the level acceptable to foreign companies of 30% would contribute to the creation of the kind of business environment needed to secure FDI.
 - c. The size of the market, the poor infrastructure and low productivity.
4. An inadequate level of technological development throughout the leather supply chain, from the selection of breeds for rearing through to the production of finished leather products.
5. Low productivity and often poor workmanship. Although lower labour cost in the leather industry is a factor that should give African enterprises a competitive edge,

¹¹ Kiruthu, 2002, Salazar, 2002

¹² The nine countries examined in Salazar 2002

this potential advantage is undermined by the¹³ absence of the strategic vision needed in enterprise development to encourage productivity, by poor management and by high local manufacturing costs.

6. Scarce and often out-dated training programmes in many countries. There is a need for the provision of training in modern processes and technologies, and in enterprise and quality management. (See also 9.c below).
7. Lack of working capital or of low cost capital. This is a major constraint facing many enterprises in Africa. Most commercial banks in the region offer financing to industries at very high interest rates, and as short-term loans. This provides no incentive to business to procure loans and is reflected in the industry's poor growth. Most industries are indigenous and, unlike trans-national companies, do not have the financial solidity to negotiate loans or investments offshore.
8. Lack of effective environmental control mechanisms to monitor compliance with existing environment protection laws.
9. Lack of trade and marketing information, expertise and support:
 - a. Poor intelligence and information systems on trade and marketing, resulting in a limited availability of trade information, a serious constraint to export growth.
 - b. A lack of training and experience in marketing, in trade negotiations, in negotiating partnerships within and outside the continent, and in trade facilitation. These are considered to be high to medium constraints on competitiveness and export development in leather producing countries.¹⁴
 - c. Weak linkages between institutions dealing with export development.¹⁵
 - d. A product-oriented rather than a market-orientated approach among leather and leather products enterprises, which often fail to give due consideration to consumer preferences.
 - e. Under-utilization of technologies such as the Internet in exploring markets or in finding out about new technological developments.
 - f. Trade liberalization. The loss of domestic market share has been due first to trade liberalization, which has brought second-hand shoes from Europe and cheap quality products from Asia that meet the demand from consumers with limited buying power, and then to the failure of the African companies to respond appropriately to this challenge. In many African countries customers now find that second-hand shoes from Europe are often of better quality than new footwear manufactured in local factories.
 - g. Quality. The most critical area for market success is of course quality. The prevalence of defects in imports of hides and skins from Africa and the lack of compliance with delivery dates are key issues for present and potential importers. Defined as fitness for use or purpose, quality includes all the features that the customer expects of a product. Hides and skins, for example, that arrive late may no longer be 'fit for their intended purpose' since they disrupt sales and/or production programmes at the importer's end. They would therefore be designated 'poor quality' by some customers.

Causes of the negative competitive factors

The negative factors that lie in the processing stages will be analyzed in Chapters 2 to 5, and those in trade and marketing will be analyzed in Chapter 6.

¹³ Studies have shown that over 80 % of the factors that lead to low productivity are people related. The key to solving motivational, operational and technical problems through adequate programmes for productivity improvement lies firmly in the hands of management.

¹⁴ An indicator of efficiency in trade facilitation is the number of days required for imports to clear customs. This varies greatly between countries (from 7 to 35 days).

¹⁵ Institutions created to support export promotion strategies.

PART TWO

**The production and improvement
of hides and skins**

Chapter 2: Animal husbandry

Good animal husbandry is essential to the quality of products throughout the leather supply chain. An analysis of animal husbandry practices was conducted in four representative African countries, Senegal, Sudan, Tanzania and Zimbabwe, by Jabbar et al. (2002) and Leach (2002). This chapter examines the development, trade, and policy issues that emerged from these studies.

Development issues

Animal husbandry practices: Most of the animals in Tanzania, Sudan and Senegal are local breeds raised in pastoral systems by nomadic and semi-nomadic herders, with a small proportion raised by smallholders working mixed crop-livestock farms. Only in Zimbabwe is there a large commercial sector that raises exotic and high-grade cattle, alongside a communal smallholder sector raising local cattle and small ruminants. Consequently, apart from this commercial sector in Zimbabwe, the quality of hides and skins of the animals in these countries is generally poor due to poor nutrition, animals not being culled until old age, and damage from branding, scratches, horn rakes, and tick bites.

Long-term livestock development strategies will be required to bring about improvements in nutrition and disease management, and to promote awareness of the benefits of culling animals at an optimum age and of the major damage that branding causes to the valuable parts of the hide. Branding is commonly practiced to establish ethnic identity and to protect animals from theft. An extensive educational programme may be required to persuade farmers to either stop using it altogether, or to brand less valuable parts of the hides such as the ears.

Defects on raw hides and skins are important in the domestic as well as in the export marketing of hides and skins, because they persist throughout the course of tanning and therefore affect the production and marketing of semi-processed materials.

Skills and manpower: In many countries the manpower available is insufficient in both quantity and quality. Sustained long-term growth in the leather sector will require the training of skilled staff in cattle breeding and management, and in a greater understanding of the influence that these activities have on the quality of hides and skins, as well as training in other stages of the supply chain. Most of the countries have established a leather training facility at one time or another, some focusing on a few simple skill areas while others have taken an integrated approach covering the various stages of the leather chain including cattle breeding.

However, in Sub-Saharan African (SSA), only a few countries, for example Ethiopia and Zimbabwe, have a large enough livestock population and a sufficiently integrated hides and skins industry, to provide the economy of scale that would allow the training facilities to function properly. In most other countries existing facilities are largely underused or not used at all. COMESA runs a regional training institute in Addis Ababa, which could provide assistance and support to national institutes in other countries.

Trade issues

Market liberalization: With market liberalization and the consequent easing of foreign exchange restrictions, trade in hides and skins has become a foreign exchange earner. Traders have become aware of the value of hides and skins as a commodity. A competitive environment is evolving as they begin to export products of higher grade and better quality that will compete in the world market. It is important that the benefits of these efforts are channelled back through the chain down to the farmers, so that the farmers have an incentive to improve the quality of their hides and skins.

Threat to local added value: The easing of foreign exchange controls, however, together with a number of other market factors, has encouraged firms to trade rather than manufacture, to export raw hides and skins rather than process them for added value. Other factors threatening local added value include:

- Countries like China, Pakistan, India and Egypt import raw hides and skins while the European Union imports wet blue hides and skins. When the price offered by the EU for wet blue is not sufficiently attractive, traders find it more rewarding to export raw hides and skins rather than wet blue hides and skins.
- Tanzanian hides and skins do not have as good an image in the world market as do Ethiopian and Kenyan products, but they are sold in the export markets to buyers of different qualities of raw hides and skins in markets other than the EU.
- More mature tanning and leather products companies in some developing countries, such as China and Pakistan, which need to import hides to fulfil production commitments, can afford to pay a higher price, relative to quality, for raw African hides.¹⁶

Protective measures: Faced with this threat to local added value, Sudan and Tanzania have introduced a duty of 15% and 2% respectively on exports of raw hides in order to promote the local processing of leather, while Ethiopia has completely banned the export of raw hides and skins. Other African countries are now following this trend.

Implications for the leather supply chain: This newly acquired status of hides and skins as a commodity (where they had previously been considered only as a by-product of the meat industry) has had an impact on all the stages of the chain. Tanneries and leather producing industries have to compete with exports of raw hides and skins. This requires not only more efficient management of the components of the leather chain, but also increased availability of capital at lower rates for investment and for use as working capital. However, the interest rates of local banks remain high, 20% being common, which discourages investment and hinders further development.

Policy Issues

Export bans and levies: The choice of whether to impose an export ban or levies on the export of raw hides may be determined by factors such as the size and structure of the hides and leather industry and the pace of liberalization of the economy, and is often decided in response to requests from the processing sector. The benefits that an export levy will bring may depend partly on how the processing sector responds and performs. On the other hand, an export levy on raw hides may be counter-productive, protecting inefficient processors and restricting the market to the level where the raw hides and skins that are processed are those that cannot be sold raw. The export of processed products may be further restricted if importing countries tax these imports, thus making

¹⁶ Prices higher than those that local tanneries in Tanzania, for example, can afford to pay.

them less competitive. Monitoring the effect of export bans or levies will allow the introduction of policy modifications as required.

Buying system of hides and skins: The international market pays for better quality in hides and skins, but there is little evidence that when African countries produce those of better quality they receive better world market prices. Even where they do, the additional benefits are not transmitted down through the chain to the livestock producers nor even to the people who are directly engaged in handling the hides and skins. Unless farmers, butchers, and collectors and handlers of hides and skins benefit economically, they cannot be expected to invest their efforts in providing better quality. The bottleneck in this process of transmitting the benefits of better prices seems to be the structure and functional mechanisms of the national and international marketing systems for hides and skins.

Investment and macro-economic policy: There is considerable variation amongst African countries in their investment and macro-economic policies. In most countries agriculture is the mainstay of the economy, with investment and macro-economic policies based primarily on livestock or plant resources. While there is no specific investment promotion for the leather industry sector in its own right in the four countries studied (Jabbar et al. 2002), this sector has been generally identified as a priority sector for industrial development in most African leather producing countries. It is a resource-based sector, creates employment and contributes to MVA (manufacturing value added).

Recommendations

1. Assess the impact of breeds and nutrition on the quality of hides and skins. Researchers should give much more attention to assessing the quantity, quality and value of hides and skins even though these are joint products with meat and milk. In many cases the value of the hide or skin may constitute a significant proportion of the total value of the animal. Such research data will support extension agents in encouraging people to take care of the hide or skin as a valuable joint product.¹⁷
2. Assess the impact of the most damaging endemic diseases and develop preventive measures to avoid damage to hides and skins.¹⁸ The prevalence of some endemic diseases, such as sheep edek in Ethiopia, leads to very poor quality hides and skins and causes significant economic losses. Detailed epidemiological and economic analysis of such critical diseases needs to be undertaken in specific countries, and appropriate prevention methods developed and tested. The veterinary extension services given to cattle breeders should be improved. Appendix 3 presents more details of the problems that these diseases bring, their causes and possible solutions.
3. Promote programmes amongst pastoral communities to improve livestock feeds, upgrade the quality of pasture, and create awareness of the importance and value of hides and skins.
4. Promote the commercial production of animal feed.
5. Provide easy access to micro-finance for micro-entrepreneurs engaged in the hides and skins trade.
6. Promote a more market-oriented approach to livestock rearing among livestock producers.
7. Carry out a detailed analysis of the structure and performance of the hides and skins marketing system at both national and international levels, and design a strategy that will provide incentives for market-oriented production. The current system does not

¹⁷ In the USA a price is given for the hide separately from the price of the meat. The farmers in that market know the price of the hide and can decide which trader will buy their hides.

¹⁸ Appendix 1 contains information on this subject.

provide price incentives to farmers and others to improve husbandry and handling practices. The following actions are recommended:

- a. The analysis should be carried out within the framework of the globalization and economic liberalization policies of the national governments, and should assess how much the processes of globalization and liberalization are influencing the structure and performance of the hides and skins production and marketing sectors.
 - b. Organizations such as COMESA and ECOWAS should request the WTO to carry out an analysis of how to harmonize various macro-economic policies, e.g., taxes, tariffs, subsidy and trade policies, and the potential effect of harmonization on the development of and trade in the hides and skins sector.
 - c. Pilot projects based on the findings of the proposed analyses should be set up to test and assess alternative ways of overcoming bottlenecks in the industry, reducing inter-country differences in policies, and promoting the development of both general and intra-regional trade.
8. Develop skilled manpower. National training institutes, where they exist, will require a high level of public investment because of the lack of an economy of scale.¹⁹ A possible solution, both for this and for other stages of the chain, may be to strengthen the planning and regional integration capacities of existing institutions such as the Leather and Leather Products Institute (LLPI) based in Addis Ababa, and run by COMESA for East Africa. This is discussed in more detail later in the Blueprint. The situation in West Africa is different. The Nigerian Institute in Zaria, although apparently not running as well as it might at the moment, does have significant facilities. The possibilities of revamping this institute to serve the needs of the region through ECOWAS should be seriously considered.

The research and development actions (1. and 2.) on the effects of animal husbandry on the quality of hides and skins should be carried out immediately. These can be expected to have a positive impact on production and quality in the medium term.

¹⁹ The national absorptive capacities of trained manpower are small.

Chapter 3: Slaughterhouse management

The poor quality of African hides and skins is a very real problem and not just a perception of the market. This chapter deals with technical and policy issues related to the slaughter of animals, and their impact on the quality of hides and skins and leather. It is based principally on four case studies prepared for the Expert Group Meeting (Jabbar et al, 2002). The countries examined in the case studies, Senegal, Sudan, Tanzania and Zimbabwe are representative of many leather-producing countries in the continent. The comments and recommendations may therefore be considered generally applicable.

Technical Issues

Slaughter facilities in the four case study countries, as elsewhere in Africa, consist broadly of slaughter slabs in rural and urban areas, mechanized abattoirs/slaughterhouses, usually in urban areas, and non-specific places used by farms and households. The type of facility used and the type of animal husbandry practiced largely determine the quality of the hides and skins produced.

Rural slaughter: Most of the rural slaughter of livestock is carried out under very poor conditions. Goats and sheep are slaughtered mainly on slabs in scattered homesteads, while in many countries cattle are slaughtered in poorly equipped slaughter points, usually located near butchers' shops in trading centres, where the infrastructure is sometimes a slab of concrete under a tree, or poles used to hoist carcasses.

Slaughter is often not adequately supervised. The tools are usually rudimentary and cause damage to the hides and skins. In many cases running water is not available and hides and skins are not washed off. Lifting-blocks for raising carcasses are often not available and all the operations are carried out on the floor. The general situation, however, varies greatly from country to country and depends on the capacity and availability of veterinary extension services as well as the legislation, if any, that governs the operation of the facilities.

Surges in slaughter at religious or cultural festival times, especially of small stock in homesteads, and the absence of adequate preservation techniques and commercial channels to purchase the much larger quantities of raw hides and skins at these times, lead to reduced recovery and to loss of quality. The butchers generally obtain low prices for the hides and skins and thus make little or no effort to maintain their quality.

Mechanized abattoirs/slaughterhouses: Of the four case study countries only Zimbabwe has mechanized abattoirs and meat processing plants of a high standard. These are designed to export meat to Europe and other developed countries. These abattoirs have until recently provided about 90% of the hides in Zimbabwe, and have been supplied with animals by commercial farms with high off-take rates. Recent land resettlement and the accompanying disruption initially increased the supply of animals for slaughter and hence increased the supply of hides, but this has now levelled off and a reduced supply is anticipated from the commercial sector in the short to medium term.

In Sudan most of the hides and skins also come from abattoirs. In Dakar this proportion is 45%, and in Tanzania less than 10%. Some of the abattoirs in all four countries were built a long time ago but, though maintenance is generally inadequate, they still provide hygienic slaughter and are equipped with refrigeration rooms.

Abattoirs and slaughterhouses in all four countries are generally located in towns and cities where the high level of meat consumption, together with veterinary hygiene requirements, dictates the concentration of slaughter in centralized abattoirs. In Zimbabwe the location of these facilities is partly dictated by the distribution of commercial farms, which are the main source of slaughtered cattle. Municipalities or governments own most of the facilities, but private participation in abattoir ownership is increasing in all four countries, although the actual extent of this could not be established.

The method used to recover skins in abattoirs in Sudan is pulling, instead of flaying with a knife as practiced in other countries. In Senegal both methods are used: flaying by pulling and by knives and machines in abattoirs. The different methods directly affect the quality of raw skins obtained. There are less flay cuts with pulling, as the skins are pulled off the carcass. Pulled skins therefore fetch a better price. This method, however, cannot be applied to cattle because of their size. They must be flayed with knives.

Unregulated abattoirs: Unfortunately the high cost of running these large facilities has, over the years, diverted slaughter to smaller, unregulated abattoirs. The number of these is increasing, particularly in Tanzania, Zimbabwe and Senegal because of weak legislation and the limited supervisory capacity available in many cities. In most cases poor flaying, lack of skills and the absence of hide pullers in these abattoirs lead to the production of low quality hides and skins. The post-slaughter handling of raw materials exacerbates this quality problem.

Factors affecting the quality of hides and skins: Table 3.1 shows the relative importance of the different factors that affect the quality of hides and skins. Post-slaughter defects are considered to be as critical as those caused in the slaughterhouse. Better skills and management, and information on better practices could prevent these defects.

Table 3.1 Relative importance of the different factors affecting the quality of hides and skins in the four case study countries

| Country and product | | Level of significance of the problem by main category | | |
|---------------------|-------|-------------------------------------------------------|-------------------------------------------|------------------------------------------------|
| | | Animal husbandry defects e.g. branding | Slaughterhouse defects, e.g. flay cuts | Post slaughter defects e.g. putrefaction |
| Tanzania | Hides | **** | **** | **** |
| | Skins | * | **** | **** |
| Sudan | Hides | **** | **** | **** |
| | Skins | ** | ** | ** |
| Senegal | Hides | **** | **** | **** |
| | Skins | n/a | *** | *** |
| Zimbabwe | Hides | * | * | * |
| | Skins | * | * | * |

Key: **** very high, *** high, ** moderate, * low, n/a – information not available Source: Jabbar et al.

Policy issues

An integrated programme in Tanzania, presented in Table 3.2, which has been designed but not yet implemented, demonstrates the multiple efforts that a country, rich in animal resources and recognizing the integrated character of the problems that affect its leather sector, can make to improve competitiveness all along the local supply chain, and to participate under acceptable conditions in the global chain. The programme was

developed early in 2002 by a multi-institutional task force of the various interested parties to revitalize the entire leather supply chain. Its main purpose was to list the problems in the chain, identify the cause-effect relationships at each point, and recommend concrete actions to eliminate the causes, thereby improving the whole supply chain. It shows the complex nature of such a revitalization programme.

The third column of Table 3.2 lists the actions to be taken. Most will affect the quality of hides and skins and the tanning capacity of the sector, either directly or indirectly. Together, these actions constitute an integrated development programme whose implementation requires coordination by the players in the leather supply chain, cooperation between the public and private sectors, the provision of international technical assistance and the negotiation of bilateral commercial agreements.

This programme is an example of the kind of integrated programme that it is hoped this blueprint will lead to. It is also an example of a National Integrated Development Programme for developing the leather supply chain. It is included in this chapter because the quality of hides and skins is the first item the programme considers for improvement.

Recommendations

1. Provide training to a wide range of people in both urban and rural areas in slaughtering and flaying skills, in preservation techniques, and in applying grading and standards. The training programmes should establish linkages among people operating in different sections of the chain through train-the-trainer programmes. These train-the-trainer programmes should:
 - a. Deal with the different stages and levels of technology found in hides and skins production.
 - b. Provide training in implementing the standards that have been/will be established for different quality grades of hides and skins.
 - c. Provide training in the application of grading according to the various aspects of quality - relating quality grades to the slaughter conditions and the methods of recovering and handling hides and skins.
2. Introduce changes in slaughtering facilities and practices:
 - a. Enforce existing legislation to promote centralized slaughtering especially in urban centres where slaughtering activities are concentrated.
 - b. Promote better management and utilization of existing slaughterhouses and abattoirs.
 - c. Create new slaughtering facilities in cities and smaller towns.
 - d. Improve and upgrade slaughter facilities and tools including, whenever possible, the installation of hide pullers.
 - e. Buyers (tanners or traders) should provide price incentives to the producers for better grade hides and skins.
 - f. The municipalities and councils that administer slaughterhouses should charge fees appropriate to the services rendered.
3. Implement hides and skins improvement programmes, in particular to improve the grading system at supply points and provide better price differentiation. Such programmes are being carried out in some East African countries and could be implemented in other countries with an expanded agenda and scope.²⁰

²⁰ For example, ESALIA has set up two projects under the sponsorship of the CFC, which could serve as models for other countries: A pilot project in selected countries on the proper use of several related techniques such as training on grading, supported by a grading handbook (produced within the UNIDO Leather Programme), better flaying methods, supported by the supply of better tools, and the issuing of certificates of quality to slaughter houses based on a performance index. A larger project based on the same principles and tools is assisting Tanzania, Ethiopia, Kenya and Zambia to improve their hides and skins grading and pricing systems in cooperation with the national leather associations.

4. Establish a slaughterhouse quality index for all African countries to differentiate the quality of slaughterhouses.²¹ Traders in raw hides and skins, tanners and international leather businesses should apply this index to the material coming from a particular slaughterhouse. The index should also encourage slaughterhouses to compete in improving quality.
5. Encourage and support the formation of organizations similar to ESALIA in other regions of Africa to undertake tasks of this kind. Producers' associations, national governments and international agencies should, after careful assessment of the potential long-term benefits and costs, support such an investment through technical assistance projects.
6. Lower festival slaughter losses. In the absence of obvious solutions, it seems that several actions need to be taken: analyze the magnitude of the losses; analyze the factors involved in the complex recovering and handling of the very large quantities of hides and skins that are produced in a short period; and establish cooperative programmes to reduce losses.
7. Deal with defects:
 - a. Actions designed to attenuate or eliminate defects on hides and skins and leather need to be directed to two parties: those who cause the defects, and organizations who might be able to influence such individuals. These organizations include, for the pre-slaughter stage, farmers' associations, agricultural colleges, traders and veterinary associations and, for the peri-slaughter and post-slaughter stages, livestock traders' associations, urban and municipal councils, public health authorities, and meat processors and tanners' associations.
 - b. The details of the remedial work to be undertaken to eliminate or control defects will depend on the conditions of the country involved and the scope and scale of the programme. One larger-scale option would be the adoption of a nation-wide, long-term campaign of activities which would touch all the stages of the leather supply chain. Alternatively, a smaller-scale option would be to focus on one issue only, such as the damage caused to hides and skins by skin diseases (see Appendix 2). In either case, it is important that objectives are clearly defined, and that monitoring and control procedures are firmly established.
 - c. Ideally, irrespective of the scale of the interventions, a long-term perspective should be adopted with a view to sustaining any improvements that are achieved. The reputation of raw materials of African origin for defects is long-standing and a lengthy period of persistent effort will be required to change it.²²

²¹Developed by ESALIA. This organization has also developed a set of grading standards based on the UNIDO/FAO guideline and has designed a quality certification stamp which it has registered for use as a marketing tool for tanners who follow the grading guidelines in differentiating hides and skins according to quality characteristics.

²² Appendix 3 (Leach 2002) classifies some of the defects that originate in the slaughter stage of the chain.

Table 3.2 An integrated programme for revitalizing the leather sector in Tanzania: action plan recommended by a local task force.

| Problem | Causes | Actions to be taken (Programme Components) | Resources Required | Time Frame |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------------------------|
| 1. Poor quality of hides and skins. | Poor animal husbandry practices and diseases. Inappropriate branding. Lack of appropriate slaughter facilities and tools. Poor slaughter practices and skills Poor storage and preservation techniques. | Improve extension services and disease control. Improve extension services and enforcement of the law. Improve slaughter facilities according to the law. Promote/upgrade slaughter facilities. Impose export levy for the establishment of a Leather Development Fund. | Staff Funds Tools | Short term Long term |
| | Lack of grading knowledge and skills. Outdated hides and skins law. | Ensure capacity building and training. Ensure education and enforcement of appropriate law. Review the existing laws. | | |
| 2. Low capacity utilization of tanneries. | Outdated technologies and worn-out equipment. High tariffs on imported inputs. Lack of committed investors. | Provide technical assistance and rehabilitation of factories. Review tariffs on imported inputs. Scrutinize strictly and review conditions of investors. Impose export levy for the establishment of a Leather Development Fund. | Staff Funds Equipment and tools | Short term Medium term Long term |
| | Lack of working capital. | Sensitize people to banking opportunities e.g. export credit. | | |
| | Lack of good quality hides. | Introduce schemes, commodity funds etc. as in Action (1) above. | | |
| | Lack of industrial skills. | Have funds made available for investment in the leather sector and encourage industrialization process (UNIDO). | | |
| | Lack of incentive package. | Establish Leather Development Fund. | | |
| 3. Lack of capital. | High cost of financing. Lack of finance management knowledge. | Provide incentives to attract suitable investors. Sensitize the community to finance management (training). Encourage partnership. | Technical staff Funds | Short term Medium Term Long Term |

| | | | | |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------------|
| 4. Competition between local products and imports. | Trade liberalization. Lack of good quality finished leather. Low capacity utilization of tanneries. | Review tariffs for imported leather products. Provide incentives to local producers as in problem (2) . Establish leather-dyeing units. | Staff Funds | Short Term Medium Term Long Term |
| 5. Weak LAT. | Ineffective leadership. Lack of financial resources. Lack of committed members. | Review the constitution of LAT; conduct fresh election. Improve financial resources. Carry out a sensitization programme of LAT. Establish Leather Development Fund. | Staff Funds Tools | Short Term Medium Term |
| 6. Lack of technical personnel. | TILT not functioning. Lack of funds. | TILT to be revitalized for human resource development. TILT to be production-cum-training centre. Implement Kiruthi/Calabrò Report. Mobilize funds for human resource development. | Staff Funds Equipment | Medium Term Long Term |
| 7. Poor coordination in policy making. | Various ministries involved in this sector. | Establish coordination mechanism. Involve stakeholders. | Meetings | Long Term |

(LAT: Leather Association of Tanzania, TILT: Tanzanian Institute for Leather Technology)

PART THREE

**The processing and manufacturing
of leather and leather products**

Chapter 4: Tannery management

This chapter examines technical, investment, policy and environmental issues related to the tanning of hides and skins. It is derived mainly from Jabbar et al. (2002), Kiruthu (2002) and Favazzi (2002). Several of the issues addressed here are also issues in the manufacture of leather products and are examined as such in Chapter 5.

Technical issues

Equipment: Most tanning in Africa is carried out in tanneries using modern rather than traditional techniques. However, most tanneries were initially established with imported reconditioned equipment and there has been little subsequent investment in modern equipment and technology.

A little traditional tanning using vegetable tannins is carried out in pits along the major rivers to produce artisan products, for example prayer mats and floor mats, but the volume of this is so low that it has little economic significance.

Skills and technology: In most African countries the leather industry was established as an export-based industry of semi-processed raw hides and skins with no consideration given to linking it to the development of a finished leather and leather products industry. Thus there is no incentive for the development of technical tanning skills and for obtaining access to new technologies.

The skills challenge is further exacerbated by:

- Low literacy levels and the lack of an industrial culture in the labour force.
- A frequent lack of trained personnel at management, processing and supervisory levels.
- Lack of technical know-how.
- Limited knowledge of market trends in finished leathers.

Obsolete equipment, low levels of training, a badly organized workflow and a frequent lack of spare parts and chemicals all contribute to low quality products and low levels of productivity.

Investment issues

There are several factors that negatively affect investment:

- High interest rates on capital.
- Lack of coordination by the investment institutions that should act as facilitators.
- Sudden unexpected economic and political events.

The privatization of tanneries in Africa, as a result of World Bank and IMF policies, has encouraged investment. However the agencies engaged in investment promotion need to be coordinated in order to improve the investment environment and facilitate the implementation of investment policies and procedures. This is particularly important since tanning and finishing operations are capital intensive.

Further discussion of the investment institutional infrastructure and related issues and the role of joint ventures is included in Chapters 6 and 7.

Policy issues

Privatization: In the absence of private investors many African governments have in the past established tanning industries as parastatal bodies under public sector management. Economic liberalization and globalization have subsequently led to the privatization of many public sector industries and bodies, but because of the structural weaknesses of the economies, and the lack of supportive policies in the financial and tax systems, privatization per se has yet to produce significant results.

Impact of trade liberalization:²³ Trade liberalization has been introduced in many African countries without the prior establishment of an appropriate legislative, legal and regulatory framework and the financial infrastructure which would promote improvements in the local competitiveness of industry before exposing it to unfair competition. Liberalization has led to high quality raw materials being exported rather than processed domestically to gain added value. On the positive side, however, it has led to more effective market competition in most countries, as well as reduced government regulation of their economies, and with the lowering of border restrictions some simplification of regulations and improvement in the business environment has been achieved.

Environmental issues

International background: The leather industry throughout the world has been identified closely with the generation of air, liquid and solid waste pollution. This has created a negative public image.²⁴ Tanneries are therefore expected to invest in waste disposal and effluent treatment plants. In industrialized countries environmental protection legislation obliges industries to invest heavily in pollution reduction and control in order.

In Europe some countries are still faced with environmental pollution problems from tanneries, especially where they have relocated the wet-process, while others (e.g. Italy) have invested time and resources in conforming to environment protection laws. This has been achieved mainly by relocating most tanneries in tanning districts where centralized treatment plants are constructed, thus achieving economies of scale. Individual companies located elsewhere have taken their own measures.

Despite the many difficulties faced in implementing pollution control in Africa, important regulations and pollution prevention measures have been introduced, especially in Ethiopia, Kenya, Namibia, Tanzania, Tunisia, Zambia, and Zimbabwe. Large projects have been developed to relocate tanneries in Old Cairo in Egypt and Fez and Casablanca in Morocco to industrial districts equipped with consortium-type water and solid waste treatment plants.

Technology options: Producer associations, research institutes, government agencies and private enterprises in the European Union are continually doing environmental protection research into ways of protecting the environment. This same spirit underlies the various international regulations on environmental certification, from ISO 14000 to Ecolabel and Ecoaudit. The goal is to maintain the highest possible standards in processes and procedures and to encourage research.

²³ Cipriani, Milone and Jabbar et al. (2002).

²⁴ Critical components to improve industry's image in contemporary societies are the capacity to respond to two types of problems: the material, represented by technology and production activities, and the social, which refers to quality of life and human relationships.

Current environment protection laws in Africa: The majority of African countries have environmental protection laws, but there are substantial variations between them. Some laws appear to offer adequate guarantees for environmental protection but have been drafted with only an administrative perception of the problem, in isolation from the reality of industry, and ignore the peculiarities of the local situation and the time required for their implementation. Governments have established environmental protection offices in different departments and bureaus with insufficient coordination between them. This leads to frequent discrepancies within the activities of regulation and control, and results in inefficient implementation.

Box 4.1 UNIDO regional cleaner leather production in Africa

Within the UNIDO Regional Africa Leather and Footwear Industry Scheme (RALFIS), activities were undertaken to support the installation of well-designed effluent treatment plants (ETPs) and/or the rehabilitation of existing ETPs as well as the training of qualified ETP operators.

- Thirty-five tanneries were assisted either by fully establishing and upgrading their ETPs or by designing effluent treatment plants for them, fielding experts, and providing equipment and monitoring services.
- The programme cooperated with universities and environmental bodies in the establishment of national tannery effluent standards.
- Cleaner technologies have been adopted and applied, a particularly important initiative. Various cleaner technology options were introduced in eleven tanneries in the region. Each tannery chose specific trials directly relevant to its production needs. The technologies selected were applied in trials at the tanneries in order to compare the applicability, efficiency, environmental impact and cost of the different technologies.
- The extension work was based on demonstrating technologies in existing plants in a manner that recipients could easily absorb. The strategy has been 'show-how' as a means of transferring 'know-how', with the results obtained in different plants being disseminated through regional seminars and practical in-plant demonstrations.

Major achievements:

- High Chrome Exhaustion: By introducing an auxiliary product that enhances the chromium uptake and conforming to certain process parameters, e.g. time, temperature, pH, etc., it was possible to improve the uptake to 95%-98%.
- Low Sulphide de-haring: By the addition of de-haring auxiliaries the project demonstrated that tanneries can reduce the quantity of sodium sulphide offered by as much as 50 - 90 %, reducing smell and giving improvements in COD readings. Additional cost to the tannery would be 6%.
- Additional technologies tested and demonstrated were:
 - A one-step process that could neutralize, re-tan and fat liquor for the shoe uppers re-tanning process.
 - Replacement of ammonium salts by CO₂ in the conventional de-liming process and the wet white leather process to address the production of chrome-free leathers.
- A new programme, 'Fine-Tuning of Conventional Tanning Technologies in the Leather Industry in Eastern and Southern Africa' is being implemented and aims to:
 - Introduce additional cleaner technology methods in leather production.
 - Fine-tune conventional technology to process leather at the tannery level. This component of the programme is promoted by environmental audits on reducing waste, reducing the use and discharge of tanning chemicals such as chromium and sulphides, and saving energy and water. The environmental improvements obtained at the different tanneries will be quantified through a cost-benefit analysis.

Source: UNIDO Regional Africa Leather and Footwear Industry Scheme (RALFIS) Terminal Report, 2001.

The issue of environmental pollution control is very much interrelated with issues of industrial structure and technology. The solution to all these problems must therefore be sought within the general development priorities and strategies of individual countries. Environmentally friendly processing conditions are essential to the maintenance of a position in the global leather market.

Recommendations

General

1. Secure supplies of raw materials. The private sector should establish strategic alliances with suppliers of raw hides and skins and compensate them appropriately for their goods.
2. Promote re-investment in new machinery and new technology. The public and private sectors should jointly address this issue in order to lower production costs and improve product quality and competitiveness.
3. Promote productivity improvement. The private sector, with public support, should introduce programmes to raise the level of management and supervision standards, and technical and managerial skills, in order to achieve a better organized workflow.²⁵
4. Increase the availability of investment funds and reduce the cost of capital:
 - a. Enterprises should establish internal financial structures and such financial support and guarantees as may be required to improve their credibility with financial institutions.
 - b. The industries must extend their knowledge of long-term investment promotion strategies, and identify additional sources of financing for capital investment.
 - c. The government could promote joint ventures and FDI to attract cheaper capital. (Further discussion of this is included in Chapter 7.)

Environmental issues

5. Examine the environmentally friendly technology options available in the market and select a technology that will:
 - a. Be technically and economically feasible under African conditions.
 - b. Use low waste technology and less hazardous substances.
 - c. Allow a rational dosage and maximum fixation, recovery and recycling of the chemicals.
 - d. Be energy efficient, with a low consumption of raw materials, including water, at specific stages of the process.
 - e. Keep hazardous emissions and risk to both man and the environment as low as possible.
6. Analyze the feasibility of establishing centralized treatment plants as an alternative to individual plants in areas with a high concentration of tannery production.
7. Producers' associations and governments should consider the establishment of incentive schemes to enterprises that apply the 'polluter pays' principle.
8. Examine how the main policies and environment protection measures in Africa's leather industry relate to eco-labelling as required by importing countries, particularly when defining an African character for a product, as proposed in chapter 6.
9. Governments, in cooperation with the private sector and other stakeholders, should establish effluent standards that are appropriate to local conditions and in keeping with global market requirements, and which can be progressively tightened.

²⁵ Productivity depends on skills, as well as management efficiency and good management practices. Studies have shown that enterprises that have fully embraced strategic quality management programmes continue to dominate global commerce.

10. International organizations such as UNIDO, FAO, ITC, and CFC should cooperate with local stakeholders in facilitating the establishment, implementation and control of cleaner production and pollution control policies in African countries. The ‘show-how’²⁶ approach applied by UNIDO for transferring technology to reduce tanning wastes and promote cleaner production in SME tanneries is a good option. This is described in Box 4.1.

²⁶ Learning by doing during technology transfer.

Chapter 5: Manufacture of leather products

The manufacture of leather products is a strategic sub-sector for the economic and industrial development of Africa, but faces strong competitive challenges. The sub-sector has a good resource base, is labour intensive, and is a good source of employment. In eight of the nine leather producing countries surveyed it directly provides 91,200 jobs, representing between 4% and 5% of total industrial employment. The sub-sector's contribution to total MVA ranges from 74% in Ethiopia to 8.3% in Tunisia and 2.9% in Egypt, and is close to 1% in each of the remaining five countries.²⁷

This chapter examines issues of development, trade, human resources development, and quality and competitiveness in the leather products industry. It is derived from Cipriani (2002) and Kiruthu (2002).

Development issues

The African footwear sub-sector seems isolated from the fast pace of technological innovation taking place globally. Lack of design capabilities, of operator, supervisory and manager skills, and of knowledge of more appropriate material inputs and marketing techniques, all combine to cause poor productivity and a low level of competitiveness.

Even in the local market, high operation costs and a lack of attention to what the market demands in shoes in terms of quality and price, allow cheap Asian products and second hand shoes to penetrate the market.

There is insufficient production of non-footwear leather products, such as leather garments, in the Eastern and Southern Africa sub-region, although this situation has improved somewhat since the early 1990s. This is a major loss of opportunity to an industry capable of the small-scale production that can offer the comparative advantages of cheap labour, low capital requirements and relatively simple technology.

Trade issues

There are several key trade issues that affect the African leather products industry, either currently or potentially:

- There is a strong export-orientation at the early processing stages in the African leather supply chain. Raw materials and semi-finished leathers tend to be exported, while finished products are sold on the domestic market. Relatively small quantities of semi-finished products, often shoe-uppers, are exported through sub-contracted production.
- The large volumes of imports of footwear from Asia and second hand shoes from Europe and North America are seriously affecting the local shoe manufacturing industry. The level of total import penetration of shoes is 73.3% for the whole of Africa.
- Projections²⁸ show an increasing global demand for non-footwear leather products, with good export possibilities for products made for specific markets. The Southern African upholstery sub-sector is developing rapidly and achieving success in the global market.

²⁷ Years 1997-1999, UNIDO World Industrial Data Base.

²⁸ Turner 2000.

Human resources development issues

Infrastructure for human resources development: Training agencies and institutions have been established by donations received through co-operation programmes and have been supported by regular investment programmes. However the training and technical assistance infrastructure in the leather supply chain has substantial shortfalls both in facilities and services:²⁹

- There is an inadequate number of trainers, obsolete equipment, and buildings that need renovation.
- The managerial and technical structure of service centres is generally incomplete, being equipped to provide services only in a few areas and activities, and with limited country coverage. Agencies dealing with training and technical assistance are concentrated in Northern and Eastern Africa and South Africa, where the leather chain is more developed.
- There are no training and technical assistance institutions in countries where the leather sector has the potential for development. For example: 4 big tanneries, 50 industrial footwear companies and 64 workshops for leather products in Central Africa have no training support.
- Owing to the low degree of regional integration on the continent, the existing training and technical assistance (T & TA) structures could not at present serve neighbouring countries that lack these services.

There are 18 active training institutions in all of Africa, each of which requires technical assistance and modernization. Their geographical distribution in relation to the number of production companies is shown in Table 5.1.

- In Central Africa, 4 tanneries, 50 footwear companies and 64 leather goods companies have no centres.
- In East Africa, eight active training centres serve 92 tanneries, 689 footwear companies and 554 leather goods companies.
- In North Africa (Algeria, Morocco, Tunisia, Egypt), where the leather industry sector has 407 tanneries, more than 7,000 footwear companies and almost 1,000 leather goods companies, only 4 leather institutes provide training and quality control.
- In Southern Africa only two centres provide support to 79 tanneries, 125 medium and large footwear companies and 74 leather goods enterprises. One centre is located in South Africa and the other in Zimbabwe.
- In West Africa only two centres support the operation of 47 tanneries, 179 footwear companies and 119 leather goods companies.

Table 5.1 Distribution of industrial enterprises and training centres

| Macro-Region | Tanneries | Footwear Cos. | Leather Goods Cos. | Training Insts. |
|-----------------|-----------|---------------|--------------------|-----------------|
| Central Africa | 4 | 50 | 64 | 0 |
| East Africa | 92 | 689 | 554 | 8 |
| North Africa | 407 | 7,172 | 944 | 4 |
| Southern Africa | 79 | 125 | 74 | 2 |
| West Africa | 47 | 179 | 119 | 2 |
| Total | 629 | 8,215 | 1,745 | 18 |

Source: Cipriani (2002)

Basic Services: Services are provided to enterprises by centres that have been set up by public administrations in a number of African countries. Some were originally built as

²⁹ Cipriani (2002).

supervision and control units and have since widened their activities to provide consultancy services, training and technical updating projects, and to manage research and development activities. There is a potential to extend this framework to include, at least partially, the management of laboratories to perform technical tests, the establishment of quality control, and even the development of standards and certification.

More recently, commercial services have also been offered but there is a low demand for these because they do not meet the needs of industrial modernization, nor do they provide assistance for marketing, support in negotiations, or contact with potential partners and buyers in the local and external markets.

Quality and competitiveness issues

Quality planning is essential to the technological renewal and modernization of the SMEs in the African leather products sub-sector and thereby to the improvement of their productivity and competitiveness. The first step in planning and establishing quality is to improve, at both regional and national level, the technical services provided by service agencies throughout Africa. These agencies should be provided with the technical assistance and training that will qualify them to offer services, such as those included in Box 5.1, to modernize and improve the competitiveness of leather manufacturing enterprises. Enterprises served by these centres should be willing to implement TQM. (See Box 5.2.)

Recommendations

1. Governments should cooperate with enterprises in developing policies for sector development and the modernization of enterprises, in particular:
 - a. Develop concrete strategies for sub-regional integration of the African leather supply chain, including raw materials, semi-finished products and parts³⁰ produced locally.
 - b. Promote the development of regional or sub-regional markets for finished products. This would strengthen technical and manufacturing capacity by the transfer and sharing of technology, and would guarantee continuity of production in an expanded market.
2. Governments and enterprises should promote investment in:
 - a. Improving technology and equipment.
 - b. Developing management skills in design and production.
 - c. Improving company organization.
 - d. Managing product conversion.
 - e. Managing quality and technology, and raising quality levels.
 - f. Positioning enterprises in the home market.
 - g. Updating tecmarket information systems and marketing penetration techniques.
3. Enterprises should consider:
 - a. Entering into sub-contracting agreements with companies abroad as independent enterprises or in groups of African enterprises in order to accelerate the transfer of technology and business know-how. This is already being practiced by some African enterprises with EU enterprises, and is further discussed in Chapter Six.
 - b. Participating in joint ventures to attract cheaper capital, obtain updated technology and modern management techniques, and gain better access to

³⁰ Parts, such as laces, buckles, etc.

global markets. (See Chapters 6 and 7 for a more complete discussion of joint ventures and FDI.)

These two initiatives would require improvements in the service infrastructure. The private sector, in the form of independent associations, could take part in joint actions with the government to improve the service infrastructure for both local and export production. This covers a wide range of services, from basic services to training and technical consulting. Further areas of improvement are related to the management of laboratories for technical testing, quality control, R&D, and the development of standards and certification.

Box 5.1 Modern Service Centres

The centres and their quality laboratories would provide the following services:

- Support for TQM.
- Quality certification and control.
- Technological and organizational services.
- Innovation and technology transfer (R&D).
- Vocational training.
- Telematics, data banks and communication.

A centre would require the following equipment, facilities and expertise:

- A physical-mechanical-chemical laboratory for quality tests, linked to foreign high-tech laboratories.
- Pilot production plants to provide vocational training, technical assistance and the transfer of technology.
- An R&D department linked with the most important foreign research centres.
- A vocational training centre with classrooms and basic facilities.
- A CAD/CAM laboratory to provide services to customers in rationalizing design and production to meet demand, and in fulfilling the requirements of standards.
- Qualified technical consultants previously exposed to the production structure and the functioning of services in the most important production districts in Europe.

The centres would be able to help enterprises apply retail trade quality guidelines, such as those listed below, and provide support in establishing export links.

- Suppliers' selection criteria.
- Product performance standards derived from quality standards.
- Norms or rules on the organization of production delivery dates and times.
- Ethical, safety and work codes.
- Environmental issues such as those established by Ecolabel and EMAS.

Box 5.2 TQM Quality Programmes in the Enterprise

Groups of enterprises served by the centres should be willing to implement TQM. Managers, supervisory personnel and workers should understand and apply the following principles:

- Quality must be viewed from the wider perspective of the organizational structure of the company: in the overall management of the company; in all areas of production management and marketing; and as a concern both of departments and of individual employees.
- Modern quality management is about more than improving the features of a company's products or services: the change in its attitude to quality will become one of its crucial strategic strengths.
- Total quality management brings increased productivity and cost reduction through the improved efficiency of all the company's processes, and brings improvement in its image, in its market competitiveness, and in its profits.
- Leadership should strive for excellence – this is the goal of total quality, a goal that can only be achieved by a dynamic process of continuous improvement.

PART FOUR

Market development and trade promotion

Chapter 6: Marketing of hides and skins, leather and leather products

This chapter presents the marketing challenges, both local and international, faced by the African leather industry, and mechanisms and initiatives to overcome them. The chapter:

- Reviews the market position of African hides and skins, leather and leather products, and the negative competitive factors in trade and marketing that contribute to this.
- Examines current trends and requirements in the global leather and leather products industry, and in the trading policies of importing countries.
- Describes mechanisms that could be used to enable African enterprises to participate in the global leather supply chain.
- Proposes initiatives that could be taken to support enterprises in doing so.
- Presents recommendations for improving the market position, both global and domestic, of African leather and leather products.

The chapter is derived from studies by Leach (2002), Kiruthu (2002), Salazar (2002), and Mosconi (2002).

The market position of African hides and skins, leather and leather products

African countries' share of the global market in hides and skins, leather and leather products is not commensurate with their share of raw materials, nor is it keeping pace with the increasing market share of other developing countries in relation to developed countries (See Table 1.1). The increase in domestic demand for shoes in Africa itself, though still modest, is satisfied mainly by cheap imports from other developing countries, and by second hand footwear from developed countries. The percentage of total import penetration in footwear has been estimated at 73.3%.³¹ (See Table 6.1)

A wide range of factors throughout the leather supply chain contribute to this low level of competitiveness: poor physical infrastructure, low levels of FDI, inadequate levels of technological development, low productivity, poor workmanship, inadequate training, lack of working capital, lack of effective environmental control mechanisms, and factors more directly related to trade and marketing.

Factors relating to the processing stages have been addressed in the analyses and recommendations in Chapters Two to Five. Those more directly related to trade and marketing will be addressed in this chapter. These are presented in detail in Chapter One. Briefly they are:

- Poor intelligence and information systems on trade and marketing.
- A lack of training and experience in marketing, in trade negotiations, and in trade facilitation.
- Weak linkages between institutions dealing with export development.
- A product-oriented rather than a market-orientated approach among leather and leather products enterprises.
- Under-utilization of new technologies in exploring markets.
- Trade liberalization.
- Poor quality.

³¹ The African market consumes 506 million pairs of shoes, 371 million of which are imported. South Africa, Egypt and Algeria are the big importers, China being the main supplier.

Most of these challenges to the African leather supply chain lie within its own resources and capacities. Recommendations are presented at the end of this chapter to address them.

However the African leather supply chain also has to deal with factors outside its frontiers, and over which it has no control. It has to engage with current trends and requirements in the global leather industry. These are examined in the following pages.

Table 6.1 Balance of trade in footwear in selected African countries (Cipriani 2002)

| Country | Production | Imports | Major imports from China | Exports | Consumption | Import penetration |
|------------------|------------|---------|--------------------------|---------|-------------|--------------------|
| Million of pairs | | | | | | |
| Algeria | | | 1.8 | | | |
| Botswana | | 5 | | 2 | 0 | |
| Egypt | 49 | 64 | 52.2 | 15 | 98 | 65.8% |
| Ethiopia | | | 1.9 | | | |
| Gambia | | | 167 | | | |
| Ivory Coast | | | 21.5 | | | |
| Kenya | 8 | | 0.5 | | | |
| Malawi | 2 | 2 | 0.4 | | | |
| Mauritius | | 3 | 1.0 | 0 | | |
| Morocco | 24 | 5 | 3.8 | 13 | 16 | |
| Mozambique | | | 6.2 | | | |
| New Guinea | | | 1.9 | | | |
| Nigeria | | | 22.0 | | | |
| Senegal | | | 5.9 | | | |
| South Africa | 30 | 49 | 38.7 | 1 | 78 | 62.9% |
| Togo | | | 23.1 | | | |
| Tunisia | 72 | 3 | 1.3 | 26 | 49 | 6.2% |
| Zimbabwe | 8 | 2 | 0.3 | 1 | 9 | 17.2% |
| Other | 0 | 234 | 0.0 | 1 | 251 | |
| Africa | 194 | 371 | 199.7 | 59 | 506 | 73.3% |

Current trends and requirements in the global leather industry and in the trading policies of importing countries.

The competitive factors challenging the African leather producing countries lie not only within their own borders. They also have to deal with external factors. These include:

- Drivers of change in the global leather and leather products industry.
- An increasing consumer concern for ethical and environmental issues.
- Current trading policies and import requirements in importing countries, especially the European Union.
- Importers' requirements for hides and skins.

Drivers of change in the global leather and leather products industry

Turner (2000) and others have predicted a number of drivers of change which will affect the leather industry over the next few years:

- A continuation of the present concentration of leather production in developing countries.

- An increased concern by consumers for the social conditions of production, for the environmental effects of the use of chemicals, and for the management of resources.
- Increased attention in business to quality, customer satisfaction, demographic trends and costs: zero defects will be a principal goal.
- An increase in product safety legislation.
- Considerable growth in footwear sales.
- An increase in the retired population which will strongly affect markets in developed countries.
- The predominance of sourcing and brands:
 - Sourcing companies and agents will continue to gain strength and will have greater influence in the entire global supply chain including design, product specifications, the production process and the implementation of quality systems.
 - Establishing partnerships with suppliers will increase the flow and exchange of information and the transfer of technology.
 - Branding will continue to be important not only for sport but for all kinds of shoes.

Leather producing countries will have to recognise and respond to these trends. In particular they will have to:

- Be able to monitor the drivers of change.
- Understand the market and the consumer.
- Encourage their companies to form market alliances in the global supply chain.
- Introduce acceptable environmental and social strategies and programmes, including the benchmarking and social mapping of labour conditions and practices in factories and workshops. The UNIDO Leather and Leather Industry Panel has recommended to industry associations and industrial development support institutions that they undertake and support this work.³²

Footwear companies, interacting in the different stages of the supply chain of the future (design, manufacturing, materials and components, sourcing, marketing and distribution), should have a global vision of the industry and an appropriate marketing strategy. They should:

- Be able to monitor the drivers of change.
- Have a good understanding of their market competitors and the marketing agents.
- Have a sound knowledge of consumer and fashion trends.
- Be able to participate in market alliances in the global supply chain.
- Realize the value of having staff with vision and entrepreneurial skills, provide training, and introduce modern management practices.
- Be able to analyze the market, to specialize in different markets and types of clients, and to promote specific products.
- Be able to respond to specific requests, and to keep up-to-date with the development and production of the type of product requested.
- Keep up to date with technologies and organizational systems that will, with proper costing of work and raw materials, enable them to be competitive.
- Know what commercial channels are available and be able to activate them correctly.
- Maintain the service capacity to fulfil the needs of the market.³³

³² Gonzalez Quijano, May 2000, December 2000.

³³ These mechanisms focus on the footwear sector, but many of their features are also applicable to other leather clothing products.

Della Colletta (2000) has proposed a 'customer-value' business for the shoe industry as a way of responding, in a context of increasing competitive pressure, to changing customer preferences: solutions will be developed by industry and distributors together with the customer.

Customer concern for ethical and environmental issues

Customer concern for ethical and environmental issues has already been referred to under Drivers of Change, but this is so critical that it needs to be given special attention.

Ethical issues: The rearing of animals for the commercial processing and trade of their hides and skins is seen by some groups in EU countries such as Great Britain as an unethical activity. So far, ethical trading issues have not had a negative impact on African countries. On the contrary, they could be the beneficiaries of initiatives like those promoted by the Trade Justice Movement (Fair Trade), set up in 2000 in the UK. Irrespective of the present situation, however, producers and suppliers in Africa need to be aware of the potential impact of ethical trading issues.

Environmental Issues: Closely related to and often overlapping the subject of ethical investment are environmental issues, including both the wider natural environment and the workplace. Businesses are now increasingly required to take the widest possible view of environmental issues, especially if they wish to qualify for ISO 14000 certification. Tanners are therefore trying harder than ever to minimize the environmentally negative impact of their activities at all stages. In Europe, for example, this means increased use of refrigeration for the preservation of hides and skins to reduce sodium chloride discharges in tannery effluents. Similar considerations could, for example, provide increased emphasis in Africa on preservation by drying.

Trading policies and import requirements in the European Union

Trading policies. The European Union is regarded as the key market for the African leather industry. There are several aspects of its trading policies that African countries exporting to that market should be aware of:

- Trade preferences, such as the General System of Preferences (GSP) or the ACP Convention (Africa Caribbean Pacific), which were established by the EU to favour access to its market by manufactured products from developing countries, are being progressively eroded as the EU continues negotiating bilateral free trade areas with a growing number of trading partners outside the conventions.
- Compulsory sanitary documentation, selective limitations of the use of chemicals, and eco-labels for footwear are as yet being applied on a voluntary basis by the EU, and are being discussed in major Asian producing countries.
- Key EU directives: the Rules of Origin which are designed to address anti-dumping; anti-fraud rules; directives on social and labour issues, on standards and consumer protection, on labelling systems, including eco-labelling, on environmental protection, on industrial and commercial property protection, and on the protection of designs against counterfeiting.

Importers' requirements in hides and skins. The market requirements of importers of hides and skins cover a range of issues related to the quality of products, delivery times, and packaging, areas in which African leather products continue to have a poor international image. As a consequence, the global leather trade has insisted that brokers act as responsible intermediaries between African suppliers of hides and skins, and the overseas buyers in order to minimize customer complaints. The use of brokers, however, is expensive and increases transaction time.

Details of importers' requirements are presented in Appendix 8 (Leach 2002).³⁴ These relate mainly to the European market, especially the Italian market, but are considered equally applicable to markets in the Near East and Far East, which, together with the EU, account for more than 80% of global imports of hides and skins.

In many respects the regulations for the importation of hides and skins from Africa to the EU are no different to those for imports from any other part of the world. Indeed, under the EU general system of preferences, imports from many African countries may be exempted from the duty (up to 6.5% on 'carriage insurance and freight' values) that usually has to be paid on some semi-processed materials entering Europe.

The most effective way for African producers to become familiar with EU regulations, and to accelerate their participation in EU markets, is through the establishment of partnerships and other business contacts between the African leather producing countries and the industries and commercial organizations of the EU.³⁵

Appendices Nos.1 to 6 also provide useful information for public and private agents engaged in the production and export of leather and leather products in the African supply chain.

Mechanisms for enabling African enterprises to participate in the global leather supply chain.

There are several mechanisms that African enterprises can draw on to successfully engage with the current trends and requirements described in the previous pages, and which will also help them to address the shortfalls in their own capacities and resources.

These are mechanisms that are used by companies around the world to gradually upgrade themselves in the leather supply chain. The main options are:

- Outsourcing.
- Upgrading to original equipment manufacturing (OEM).
- Upgrading to original brand manufacturing (OBM).
- Participating in Triangle manufacturing.
- Joint ventures (see Chapter 7, Section One).

Outsourcing: Buyer companies, also called sourcing companies, create partnerships with suppliers with whom they increasingly share information on processes, quality and specifications. They are becoming bigger and stronger and have a growing influence on the whole supply chain. They frequently control the design and specifications of the product as well as the marketing, and they influence the processing and the implementation of quality systems.

OEM (original equipment manufacturing): In OEM, producers must have the capability to find all the components needed to manufacture or assemble the finished product. These are called 'Full Package' or OEM companies and are located in more advanced developing countries. They sub-contract the production of parts locally or from firms in other developing countries so that they can meet large orders from abroad in both time and quantity.

³⁴ Importers' requirements presented in Appendix 8 include import licenses and certificates, contracts, certification, payment options, supply times and modes, packaging and labelling, grading and pricing, and communication with buyers.

³⁵ Milone 2002

OBM (original brand manufacturing): OBM is an upgrade from OEM and is undertaken by OEM manufacturers in order to compete with lower-cost exporters from other developing regions. The OEM manufacturers can become OBM manufacturers by establishing forward linkages to developed country markets where the largest profits are made in the buyer-driven commodity chains. The original OEM combines its production with the design and sale of its own brand names. This approach has been taken by Japanese firms, by some companies in the Newly Industrialized Countries (NICs) who manage their OBM operations for export and for local markets, and by some firms in the Sinos Valley footwear cluster in Brazil.

Triangle manufacturing: Triangle manufacturing is a mechanism used for three purposes by countries operating in buyer-driven commodity chains:³⁶

- To deal with competition from lower-cost suppliers.
- To move into higher value-added activities.
- To facilitate geographical expansion of their operations.

Triangle manufacturing is considered to be one of the most important mechanisms used by maturing export industries in East Asia to achieve full competitiveness in the global chain. It is a combined operation in which the agent acts as a manufacturer, a purchaser and a subcontractor to third parties. Triangle manufacturing has changed the role of NIC manufacturers from being established suppliers to USA retailers and marketers to being middlemen in buyer-driven commodity chains that can include as many as 50-60 exporting countries³⁷ (Gereffi 1999).

Gereffi (1995) describes how this mechanism is used with garments thus: 'USA buyers place their orders with the NIC manufacturers from whom they have sourced in the past (e.g., Hong Kong, Taiwanese, or Korean apparel firms), who in turn shift some or all of the requested production to affiliated offshore factories in low-wage countries, e.g. China, Indonesia, or Guatemala. These offshore factories can be wholly owned subsidiaries, joint-venture partners, or independent overseas contractors. The triangle is completed when the finished goods are shipped directly to the overseas buyer under the U.S. import quotas issued to the exporting nation'. Examples are Hong Kong and Taiwan footwear manufacturers' massive investments in China. (See box 6.1.)

The benefits of upgrading. Upgrading should be understood in the context of this chapter as moving to activities that offer higher survival opportunities and higher returns. Higher returns can be obtained either by shifting production towards higher priced products or by acquiring new functions in the value chain such as participating in design and marketing. Gereffi (1999) defines industrial upgrading as a process of improving the ability of a firm to be more profitable or more technologically sophisticated and serve capital-intensive economic niches.

The opportunities that can be gained by upgrading depend on the quality and quantity of information that is provided to the local manufacturer, and as a consequence the type and amount of learning that the local manufacturer receives from the marketing agents. In the simplest form of outsourcing, the information received by the local producer is relevant only to the production segment of the commodity chain where he/she is placed.

³⁶ The buyer-driven commodity chains are organized around labour-intensive industries such as footwear and garments in which the marketing and manufacturing agents (retailers, branded marketing agencies and branded manufacturers) set up global production networks, principally in developing countries. Enterprises in exporting developing countries produce the finished goods under contract following the specifications, guidelines and technical advice provided by the purchasing agents.

³⁷ Figures common in the apparel value chain.

But marketers and retailers also need to upgrade their suppliers. They need producers with the capability to find all the parts needed for the finished product. This means that they require more advanced, 'Full Package' or OEM companies. These companies may sub-contract the production of parts to local firms to fulfil orders. OEM companies then learn how to organize production networks and to improve their marketing. It is this learning that has permitted Asian suppliers to move from OEM to OBM.

Box 6.1 Hong Kong Operations in the Global Footwear Value Chain

Participating in the Value Chain

Hong Kong exports a large quantity and variety of footwear products. A large proportion of these are manufactured in China and re-exported. Most of the mechanisms used in the world for participating in the global footwear value chain, discussed in preceding sections, are found in operation in Hong Kong:

- Manufacturers of footwear sell directly to overseas importers/wholesalers, or to direct buying offices (i.e. JC Penny, Sears, Macys, Wal-Mart and Kmart).
- A large number of firms produce under the private labels of department stores, boutiques, shoe retail chains and mail order houses in North America and Western Europe.
- Local trading firms or Taiwanese companies export directly, mainly to USA markets.
- Trading firms source from China and re-export through their offices in Hong Kong.
- Hong Kong companies (many with Taiwanese investment) produce, export and distribute internationally well-known brands under contract. (Bass, Clarks, Fred Perry, Avia, Converse, Adidas, Nike, L A Gear, Reebok and others).
- Some companies are operating under licenses to produce and distribute foreign brands in the Chinese and Hong Kong's markets.

Recent Developments

Over 80% of local manufacturers have shifted a significant part of their production to China, leaving only a limited capacity in Hong Kong for meeting urgent or small orders. In addition, many of them have invested substantially in expanding production lines in China. Some of the Chinese plants are now capable of producing up to one million pairs of shoes per year. New market opportunities have emerged amid the industry's restructuring. While plastic/rubber and textile footwear continue to occupy a large share in overall exports, higher value-added footwear, such as ladies' leather dress shoes, has gradually gained an increasingly important share. For this segment of the market Hong Kong manufacturers have strengthened quality assurance methodologies and adopted stylish designs, following the latest fashion trends closely.

Taiwan is another major foreign investor in China. At present over 90% of Taiwan's footwear factories (more than 1,000 companies) have set up plants in China, especially in Fujian. With the support of a strong plastics industry and technology research on footwear-manufacturing at home, Taiwan has a strong position for producing rubber shoes and shoes made from artificial leather.

The co-operation between Hong Kong, Taiwan and China is considered a most efficient combination of resources for further market expansion. Because of its excellent access to information on international markets including the latest market trends on product development, sourcing of supplies and arrangement of delivery and payments, Hong Kong plays an important role in managing the production and quality of Chinese footwear operations. It provides the technical know-how and the development of marketing contacts overseas, while Taiwan provides the capital, and the Chinese counterpart provides not only workers and facilities to establish production lines, but also the necessary linkages to serve the Chinese domestic markets.

Source: www.company.com/hkencyc/hkepage1.htm, January 2001.

Among developing countries, East Asian NICs are usually considered to be the models of upgrading within the global supply chain. Gereffi (1999) indicates that the success of East Asia's buyer-driven chains can be explained by their upgrading, moving up in the

chain from stage one, the assembling of imported inputs, to more locally integrated manufacturing activities, and to exports with higher value added (i.e. OEM and OBM).

The benefits of enterprises upgrading to being OEM exporters, according to Gereffi, are:

- This upgrading enhances the ability of local entrepreneurs to determine the preferences of foreign buyers, and be aware of the international levels for the price, quality and delivery of export merchandise.
- It also generates substantial backward linkages in the domestic economy because OEM contractors are expected to develop reliable sources of supply for many inputs.
- Expertise in OEM production increases over time and spreads across different types of activities.
- The OEM supplier learns from the buyer about the downstream and upstream segments of the commodity chain.³⁸

The potential for African firms to make use of the mechanisms that would enable them to upgrade to full package suppliers will depend to a great extent on their ability to connect with the different firms that operate in buyer-driven chains. The best opportunities for upgrading may be found in quality-driven market segments where there is a low concentration of buyers.³⁹ Companies will have to identify contractors, normally the large global players in the footwear supply chain, and become sub-contractors to them, ultimately becoming independent participants in the global market. In this way too they will profit from the relocation processes that are now evolving.

The case of Hong Kong, shown in Box 6.1, illustrates in practical terms many of the operational tools discussed in this section.

Initiatives to support the participation of African enterprises in the global leather supply chain.

Companies that choose to use these upgrading mechanisms to participate more successfully in the global market will need support. There are several important initiatives that should be taken:

- National institutions should be given the capacity to provide investors with information. Investors and entrepreneurs who want to relocate mature activities from developed countries require timely, accurate and reliable information. A study that would allow a comparison of African local and regional standards in local consumer markets with those in international markets would be useful for the countries themselves, and would also help international and bilateral organizations to identify those countries that could be integrated into the global leather supply chain in the medium term.
- The conditions must be created for companies to produce footwear at medium and low prices for the local market as import substitution for the present imports from Asia and second hand products from Europe. Their capacity to function independently will be strengthened if they begin by serving internal and then neighbouring markets.
- Innovative business support centres should be established to provide both technical and marketing know-how.⁴⁰ The principal role of such centres would be to guarantee the quality and increase the confidence of enterprises so that they could more easily

³⁸ This tacit knowledge can later become a powerful competitive weapon.

³⁹ Upgrading from triangle manufacturing to OBM occurs as a reaction to the large differences in profits that the U.S. retailers and manufacturer-merchandisers realize compared to the profits made by their business partners in developing countries.

⁴⁰ Mosconi (2002).

establish relations with production and commercial companies in global markets. Such a centre is described below.

An innovative business support centre. Clusters of enterprises would participate actively in activities established by this centre. The centre would apply methods of intervention to transfer know-how to the participating enterprises and to the whole system of the leather supply chain in which they operate.

There are three main sets of activities, also presented graphically in Table 6.2.

- Support process. The support services to enterprises would include:
 - Industrial sector training to upgrade enterprises to a competitive level in technical and managerial matters.
 - The training of trainers to provide on-the-job training and quality and technical advice to enterprises in order to assure reliability. They would be the agents of change.
 - The establishment of a market information system and a technology centre.
- Primary marketing process. This would include the planning of sub-contracting services, and the starting-up of trading within outsourcing or sub-contracting markets until trading is fully operational.
- The organization of external events. This could include participation in trade fairs and the launching of new initiatives such as the 'Made in Africa' proposal (See Box 6.2).

When it is a leather industrial cluster that is being promoted, and not just an individual company, support must be given to improving the image and organizational methods of the production and marketing systems in which they operate. The purpose is to exploit the competitive advantages not just of the enterprise, but of the entire system of linked enterprises, from production to marketing.

Global brand leaders are interested in a system of competitive enterprises with a degree of quality and trustworthiness that will compensate in part for the disadvantages of being located far from the main markets – enterprises with which, for example, they can be certain that shipments will arrive on time.

Box 6.2 'Made in Africa' Project

Many developed markets are saturated. Producers have sought to maintain market share by promoting products with a local identity. This has given economic value to the revitalization of the cultural heritage of a country, hitherto seen only as a social investment. Products, styles and uses linked to each country's cultural heritage may provide a valuable instrument for growth for small and medium enterprises. European marketing experts believe that this is how Africa may find an independent developmental and marketing path in the leather and footwear industry, transferring to their products the colours, shapes and styles of their culture.

Then, if the initial path of promotion by means of the 'centre for competitive development' as described in Table 6.2, is accomplished, an effective entrance may be found into the global market by planning and building the capabilities for product lines based on the concept of 'Made in Africa'. The development of these capabilities should be undertaken once the basic quality and reliability necessary for participation in the global market have been achieved. The future activities of the centre should, therefore, move progressively to support the creation and the development of products with local cultural values.

Promoting innovative and different new productions does of course require supporting actions from the government, financial institutions, producers associations and the private sector, to facilitate credit for working capital at acceptable rates, the acceleration of trade procedures, and improvements in information systems including some basic infrastructure to use e-commerce.

Box 6.3 The impact of integrated technical assistance and market exploration on SMEs

The case of Ras Dashien shoe factory in Addis Ababa, Ethiopia could be taken as an example of how an SME can become competitive by benefiting from integrated technical assistance and learning about export possibilities.

The company was assisted by UNIDO using an integrated approach that included product development; improved plant layout, methods of production and selection of equipment; skills upgrading; and the company's participation in international leather fairs. The training in technical and management areas motivated the company to undertake further development that brought considerable improvement in production flow and volume, and consistency in quality. The purchase of additional equipment allowed expansion in production and improvements in quality. Participation in the foreign leather fairs gave the entrepreneur the opportunity to understand foreign markets and export possibilities.

As a result, between 1995 and 1998, the firm received export orders for 40,000 pairs of shoes with a value of US\$500,000. Export orders were also received for shoe soles. The strategy of 'stretch', introduced by UNIDO, where integrated technical assistance and new equipment can enable a business to stretch itself to its full potential without building a new plant, produced impressive results. Since 1998, the firm has built an extension to the factory in order to increase its production capacity.

Recommendations

General

1. Industrial associations, with the support of government departments, should establish benchmarking⁴¹, marketing intelligence services and efficient information systems for industry and investment promotion units, so that appropriate strategies and programmes can be developed for the local and export markets, and up-to-date information provided to potential investors.
2. African countries must assess both the advantages and the risks of having policies to regulate their trade in unprocessed raw materials. If they choose to have such policies, they must design them with performance indicators which will monitor their effects on industry and the market, and then decide whether to keep or modify them.
3. Provide integrated technical assistance to enterprises, including assistance in establishing contacts with local and export markets. (See the example from Ethiopia in Box 6.3).

Competitiveness in the domestic market

4. Create the conditions for companies to produce footwear at medium and low prices for the local market in order to strengthen their capacity to function independently.
5. Improve efficiency and competitiveness throughout the leather production chain, but particularly at the manufacturing stage, in order to provide the quality and price demanded by low-income customers.
6. Maintain a balanced tax and tariff regime between imports and domestic products, within the WTO agreements, to protect the infant industry until enterprises are able to compete with imports. This protection should be accompanied by the provision of integrated technical assistance.⁴² (The imposition of import tariffs on second hand

⁴¹ Benchmarking is discussed in Chapter 7.

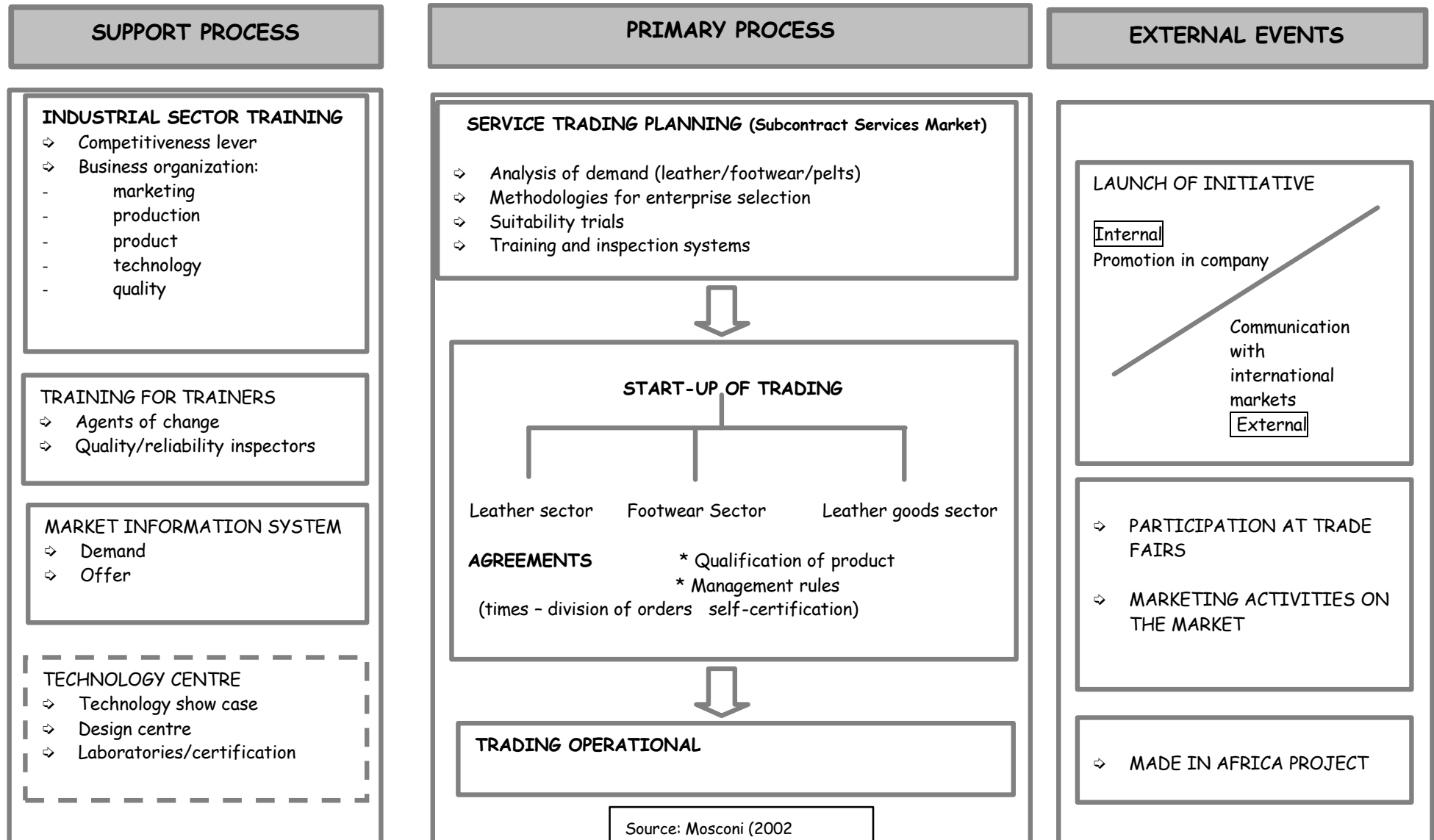
⁴² Integrated assistance is to be provided to the leather industry by the modernized centres discussed in previous sections and has already been applied by UNIDO as illustrated in Box 6.3

shoes and other leather products may not be a solution since this may raise the overall cost to all consumers.)

Sub-contracting and upgrading mechanisms

7. Investigate the opportunities for, and the challenges of, African enterprises participating in the global market through sub-contracting and upgrading mechanisms, and, where appropriate, promote such participation. Industrial associations and investment promotion agencies should take part in this investigation and promotion. The transfer of technology through investment for innovation is the responsibility of industry. Linking enterprises to the global market through supply chains facilitates this transfer and the improvement of efficiency and competitiveness that it brings.
8. Set up innovative business support centres to prepare companies for and give them support in participating in subcontracting and upgrading mechanisms.
9. Buyer-driven commodity chains may offer interesting opportunities to the African leather supply chain. Local industry and associations need to have access to 'chains-lead firms' which are the marketing agents that coordinate and integrate internationally dispersed activities in the global leather supply chain.

**Table 6.2 A Marketing Services Business Centre: Centre for Competitive Development
-Activities flow chart-**



Chapter 7: Business strategies and tools

This chapter presents business strategies and tools for developing the African leather supply chain:

- Section One: Macro policies to increase FDI inflows to African countries.
- Section Two: Strengthening the financing system for the African leather supply chain.
- Section Three: The potential for trade in leather and leather products.
- Section Four: Benchmarking as a tool for understanding the position of African raw materials, leather and leather products in the global market.

These sections are derived from, respectively, Salazar (2002), Dengu (2002), Gibb (2002) and Kiruthu (2002).

Section One: Macro policies to increase FDI inflows to African countries.

Foreign direct investment (FDI) is a valuable source of investment for developing countries, but requires a healthy business environment which must be generated by appropriate macroeconomic policies that are implemented with transparency. Several factors related to macro policies and the business environment have been identified by different researchers and institutions as determining FDI inflows to African countries:

- **Political environment.** A stable political environment is conducive to FDI. Advances have been made to a more stable political environment in many African countries. Democratic consolidation in Malawi, Tanzania and Nigeria, in particular, may have a positive regional influence.
- **Macro-economic policies.** Inflation rates, a key indicator of sound monetary policies, indicate that many African countries are moving towards greater macro-economic stability.
- **Fiscal policy.** A corporate tax of 30% or less has been shown to attract FDI to developing countries.⁴³ The marginal corporate tax rate has been lowered below 30% in three of the nine countries surveyed in Salazar 2002,⁴⁴ but a large number of African countries have a corporate tax between 30% and 40%.
- **Privatization** has been successful as an initial source of FDI, but less so as a sustained source since it sometimes reduces transparency in business operations.
- **Trade policies.** EPZs have proven to be a positive stimulus to FDI in Tunisia, Egypt, and Kenya.
- **Business environment.** Most countries have made efforts to improve conditions and amenities for potential investors.
- **Business facilitation,** in particular the reduction of red tape, is an area that needs improving in African countries.
- **Transparency.** This is a key factor influencing FDI decisions. Some improvements have been registered in African countries, but a survey in Salazar 2002 recorded different scores for transparency in the nine countries surveyed. The country with the best score in the sample is still not in a satisfactory position. The problem is very complex and has at least two main actors: the government through its many policies and requirements and

⁴³ Brazil, Singapore, and China have a corporate tax of 30% or below.

⁴⁴ Northern Africa: Egypt, Tunisia and Morocco. East Africa: Tanzania, Kenya and Ethiopia. West Africa: Mali, Nigeria. Southern Africa: South Africa.

frequent lack of clarity in regulations can indirectly create an environment that is not conducive to transparency, while the OECD countries until recently considered it acceptable to make payments to foreign officials. Governments and the private sector, local and foreign, have to contribute to the observation of rules and regulations.

- **The rule of law** is another key factor influencing FDI decisions. Again, some improvements have been registered.
- **Continuous civil conflicts.** This is an important negative factor, but does not always apply in countries with high levels of natural resources

TNCs as investors and potential partners for joint ventures

When the potential investors, or partners in joint-ventures, are trans-national corporations (TNCs), the analysis of FDI determinants has to consider which type of interest motivates them - whether they are market-driven, resource-seeking or efficiency-seeking - since the determinants differ according to each of these types, as shown in Table 7.1.

Table 7.1 Determinants of FDI according to the interests of TNCs

| Type of interest: | Aims | Determinants | Remarks |
|------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Market-driven or market-seeking | Penetrate foreign markets. | Size of the markets as measured by GDP, GDP per capita and population size, access to foreign markets, and structure of the market. | Regional integration may be a route to overcoming the barrier of small markets. |
| Resource-seeking or factor driven | Increase operations by processing local resources with appropriate inputs and infrastructure. | Availability of natural resources, of low cost unskilled labour and skilled labour, and the quality of the infrastructure. | African countries have a high level of animal resources, but poor and deteriorating quality in transport and telecommunications. There is a greater availability of skilled labour in Nigeria, Tunisia and Senegal than in other countries (World Economic Forum in Salazar 2002). |
| Efficiency-seeking | Expand through cost cutting. | Productivity of labour, cost of resources and inputs, potential for expansion through participation in regional integration frameworks, trade efficiency through regional agreements. | A number of regional and sub-regional agreements have been signed by the relevant countries with different levels of intra-trade. |

All three TNC types do, however, have common determinants:

- The availability and cost of raw materials.
- The availability of skilled labour and the level of labour productivity.
- Large markets or access to foreign markets.

The main positive factor for TNC investment in Africa is the availability of animal resources, the primary input in the leather supply chain, while poor infrastructure and low levels of labour productivity are the main deterrents.

Recommendations

1. The civil sector, both local and foreign, should reach agreements to promote transparency and eliminate bribery.
2. Governments, the private sector, and intra-regional, bilateral and multilateral agreements should take on the long-term task of improving infrastructure. COMESA has given a good example in establishing regional joint ventures in the area of infrastructure.
3. The government primarily, but also the civil society, must make improvements in the application of law and in the quality and performance of public institutions. These are key determinants of competitiveness and FDI.
4. The possibility of reducing South-South tariffs should be analyzed with the aim of further promoting intra-regional and South-South trade in general, thus creating the enlarged markets that attract TNCs.
5. African countries, governments and industry need to keep themselves informed about the potential interest in investment of TNCs, and in doing so learn how to establish additional links with the global economy.

Section Two: Strengthening the financing system for the African leather supply chain

This section⁴⁵ consists of:

- A brief presentation of the financing needed to modernize the different components of the leather supply chain, and of potential sources of finance, with guidelines on how to present proposals to financial institutions.
- A discussion of introducing a structured finance system in Africa.

Financing the modernization of SMEs

Financing requirements and sources of finance

From a banker's perspective there are four distinct production components in the leather supply chain. These components, presented in Table 7.2, have different risk profiles and therefore different financing requirements. Potential investors need to understand the dynamics of the leather supply chain in order to make viable and sustainable financial decisions.

Financial institutions for commodity development, marketing and trading

These financial institutions are:

- Commodity development including marketing and trading system: The Common Fund for Commodities, The World Bank, The African Development Bank and The International Fund for Agricultural Development.
- Pre-export finance and inventory credit for leather manufactures: Commercial Bank, PTA Bank, African Import and Export Bank, National and International Merchant Banks

⁴⁵ (Dengu, 2002)

Table 7.2 Financing required by SMEs in the African leather supply chain to modernize production components and increase competitiveness.

| Components of the chain | Financing required for: | Sources of finance |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Livestock breeding and management. | Commercial livestock production. | Agricultural Banks with support of WB, IFAD, ADB and FAO. |
| Collection, preservation and grading of raw hides and skins. | Foreign investment usually not required; Development finance required for policy research and implementation through extension work. | CFC |
| Tanning. | Imported technologies and equipment for production and pollution control. | ADB (private sector department) IFC, PTA Bank, national development banks, commercial banks ⁴⁶ , South African Development Bank. |
| Manufacturing of leather products (particularly footwear). | Purchase of equipment and technology for design and production; Investments, and long term finance; Trade financing. | Similar banks as for tanning. Merchant and commercial banks. Merchant and commercial banks. |

Requirements of financial institutions in investment proposals

Financial institutions require that investment proposals contain the following:

- A clear definition of the problem and the assistance required.
- A record of past company performance.
- A clear definition of the ownership structure of the company and an indication of how much capital has already been invested in it.
- The suitability of the management structure and the management personnel.
- The integrity of the project promoters and their skills.
- Market analysis of target markets.
- Availability of raw materials and knowledge of the industry.
- Risk management strategy – devaluation risk etc.
- An investment by the project promoters of at least 40 to 60% of the total project cost.

Introducing structured finance in Africa

The under-developed trade financing systems

In order to promote greater efficiency in commodity marketing and to ensure adequate returns to participants in the production and marketing chain, measures need to be introduced to address the constraints in the trade financing system. The measures must be implemented with the support and understanding of the local banking community. The proposed approach will promote improved quality, enhanced market competition, reductions to risk of operations, improvements in insurance services, minimization of marketing costs and facilitation of credit availability to local market participants. Major considerations are presented below for promoting and enhancing local finance of the commodity trade, which includes the trade in hides and skins, and leather and leather products.

⁴⁶ Especially from South Africa.

Reliable information (database) for planning trade financing. Reliable information is often lacking. It is important for financial institutions and business to get reliable data on livestock production, slaughter rate, tanning capacity, production capacity and exports of leather and leather products by destination and *in toto*, as well as quality, prices, and traders' and warehousing capacities. This information is a prerequisite for appraising a trade finance deal.

Speedy credit appraisal system. There is a need to simplify the credit assessment systems without compromising the quality of the assessment. In trade, time is of the essence – a business decision should be made at the speed of business. If the banks cannot operate at the speed of order deliveries, they could become the biggest constraint on business growth. The simplifications required to achieve this include the development of a credit system that does not rely solely on fixed assets (buildings and equipment) as collateral. Such a system would include the use of the underlying commodity as collateral by the application of commodity-linked hedging and warehouse warrants and a warehouse receipt financing facility. Such a facility should be customized, with a specific and fixed product package.

There is a need for a streamlined and efficient transaction process, with clearly defined parameters of acceptable risk and risk mitigation. The application of such a system would require the development of a storage, collateral management, and warehouse receipt system. A supportive legal and policy framework and an appropriate insurance scheme to back this system should be in place in case of a breakdown in the system.

Strengthening the capacity of local banks through training and the introduction of good trading practices. Fiscal incentives are required to promote capacity building in the local financial sector. The local banks and other financing institutions should be strengthened to carry out trade finance. On-the-job-training should include both theoretical training sessions and actual practical exposure. Such training should include exposure to commodity transaction cycles; the identification and management of market risks (technical, financial, counter party, and price risks); the evaluation of trade credit proposals and management of such credit; and appropriate hedging operations.

Lines of credit and trade facilities. In order to improve the limited resources available for commodity trade finance of local banks willing to try new products, it will be helpful to assist them to mobilize reasonably priced lines of credit to support the supply chain. Foreign buyers are extremely selective as regards quality, delivery schedules and price, including any credit terms. The pre-export, commodity-linked, hedging and warehouse warrant receipt financing facility together with a reliable inspection system has an essential role to play in enabling exporters to offer competitive services and assure their abilities to meet these increasingly strict contract terms and conditions. The facilities should also be offered to support essential imports of basic inputs like chemicals for warehousing in the country. The local tanners could then buy the chemicals from the local warehouse, in small parcels from stock.

Reasons for setting up a structured finance system

In order to promote efficiency in commodity marketing and to ensure adequate returns to participants in the production and marketing chain, it is necessary to promote quality products, enhance market competition, reduce operational risks, minimize marketing costs and enhance access to credit for small and medium sized traders and small-holder producers. It is therefore proposed that a structured finance system be designed that would include

provisions for the collection, analysis and dissemination of market information; the development and testing of a supportive legal and policy framework; and the expansion of financial services to facilitate the participation of more local traders in the market.

Implementing structured finance in the hides, skins and leather and leather products sector.

Once the structured finance system is established, the following operations may be conducted by different players in the leather supply chain:

- Traders in hides and skins can borrow against stocks of hides and skins they are holding in trust in their warehouse before they sell or export them. Thus they can obtain bridging finance to continue buying before they sell their stocks.
- Tanners can borrow against stocks of wet-blue or leather before exporting or selling in the domestic market. Tanneries can support their working capital and liquidity requirements with a financial product that is a little more creative.
- Leather goods manufacturers can borrow against inventories of shoes or other products in stock awaiting export or release on the domestic market. All these innovative options can enhance the working capital of the business and improve the business efficiency.

Main Components of a structured finance system

Legal and policy framework. The definition of government and private sector roles in the commodity trade should be embodied within the clear legal and policy framework referred to as the Warehouse Bill or Act. In most African countries the legal and policy framework for commodity trade has not yet been developed. Operators currently rely on fragmented business and legal codes and policies, which are not specifically related to commodity markets and trade. The existing legal and policy framework needs to be consolidated and improved to respond more adequately to the needs of operators in the hides and skins and leather and leather goods sector. The consultation process for building a legal framework should include both private and public sector stakeholders, not only in hides and skins but also in related areas, for example transport, freight forwarding, banking and insurance.

Contract performance: Contract performance will be enhanced by a clear definition of the legal, policy, regulatory and procedural framework within which market operators engage in trade. The terms and conditions of contracts, including specifications of quality, price and delivery, should be clearly stated. African countries should be encouraged to publish regulations and codes of practice for all the commodity sectors.

Trade finance: Access to off-shore finance facilities is limited, and credit from the local banking sector is expensive due to the inherent risks and other problems in African countries. In these circumstances, access to trade finance is an effective barrier to entry into international markets. There is an urgent requirement to ease the trade finance problems by addressing the constraints holding both local and international banks back from providing trade finance. The main problem is the perceived country or political risk. This is one of the most subjectively measured risks and hence there is a need for a new formula. The new formula should be developed in consultation with African institutions and companies operating in the region.

Market competition: Market competition should be facilitated by promoting the increased participation of local traders and exporters in the domestic commodity market by providing training and improved access to credit. The African governments should make arrangements

for linking the different categories of traders, but not at the expense of market operators who may wish to undertake a complete cycle of market transactions. The governments and trade associations should seek to identify financial support services to small and medium sized traders so that the market can be competitive.

Marketing risks: Several risks have been identified in the commodity marketing chain. The principal risks include defaults on credit faced by financiers, price risks faced by all market operators, risks of poor contract performance faced by traders, and quality and other technical risks faced by both producers and traders. The current concentration of market share and the tendency for the full cycle of operations to be undertaken by a limited number of traders are both indicative of a number of market imperfections and contribute to the practice of discounting prices at primary levels. This could be seen as monopoly power. The default rate and costs of finance can also be ameliorated through financing operations with a shorter transaction cycle, including effective price risk management, and can be supplemented by insuring all stored products.

Challenges of introducing a structured finance system

The Common Fund for Commodities (CFC) has experienced challenges in several areas in countries where attempts are being made to introduce structured finance systems in Africa:

The influence of monopolies or big players: There are dominant players in each part of the trade chain who prefer the status quo. In Africa there is some resistance to change from big traders, tanners and manufacturers, collateral managers and banks, who view policy formulation and implementation with suspicion. There is a fear of transparency and the entry of new players into the market.

Co-operation: As elsewhere in the world, banks in Africa compete rather than co-operate. It is very difficult to work with these banks to reform the financing system because the country managers do not have authority to participate in the country's policy formulation.

International banks: For international banks located in Africa much decision-making is based outside Africa. Thus the credit assessment criteria and conditions cannot be changed without head office authority. It has been difficult for the country managers to obtain the authority to move from fixed assets based lending to warehouse receipt based lending. It has been difficult for international banks to participate in the change process. The international banks in Africa should be approached through very experienced, senior experts and this matter discussed in an effort to bring about change.

The private sector attitude towards government: Some operators tend to believe that the government is irrelevant. This is obviously a dangerous situation. When the stakeholders ignore the government the result is non-co-operation and mistrust.

Newspaper based risk assessment: It is unfortunate that country risk assessment is frequently driven by stories of scandal rather than facts.

Government performance in introducing structured finance systems: There is a commonly held view that government is slow and unwilling to change, but CFC's experience in Africa has been different. In countries where CFC is introducing these new financial products it has been found that the governments are ahead of the private sector in understanding the problems, especially after CFC has assisted the governments by financing

the legal research. Governments are keen to introduce a structured finance system because it allows more players to enter the commodity trade sector.

Bonded warehouse finance: Governments are requesting that the legal and policy framework include bonded warehouse financing for imports of essential inputs, since it will reduce lead-time for the local purchase of these imports.⁴⁷ It is proposed that international banks should finance stocks in warehouses which are secured by a bonded warehouse receipt, and that the stocks are released upon payment of the goods in smaller lots. The leather sector could, for example, benefit from chemicals stored in the bonded warehouses.

Recommendations

1. Prepare a warehouse bill in order to provide a clear legal and policy framework and define government and private sector roles in the commodity trade. The Bill should be prepared in consultation with all stakeholders of the leather and leather products industry including related areas such as transport, freight forwarding, banking and insurance.
2. Producers associations of the leather and leather products industrial sector should, in cooperation with the banking sector, organize workshops on the rules and procedures regularly applied in the financial system
3. Promote capacity building in the local financial sector through the introduction of fiscal incentives.
4. Strengthen the capacity of the local banks and other financing institutions to carry out trade finance through on-the-job training and practical exposure to the different commodity transaction cycles.
5. Design a structured finance system to facilitate the participation of more local traders in the market. This system should include provisions for the collection, analysis and dissemination of market information; the development and testing of a supportive legal and policy framework; and the expansion of financial services.

Section Three: The potential for e-trade in leather and leather products

The central issue in considering the application of *e-trade*⁴⁸ to the African leather supply chain is: 'How can the African leather supply chain, comprising small and medium enterprises (SMEs) and the organizations that support them, apply information, communications and networking technologies to improve their international competitiveness and increase their level of participation in international trade?'

Scope for virtual marketplaces

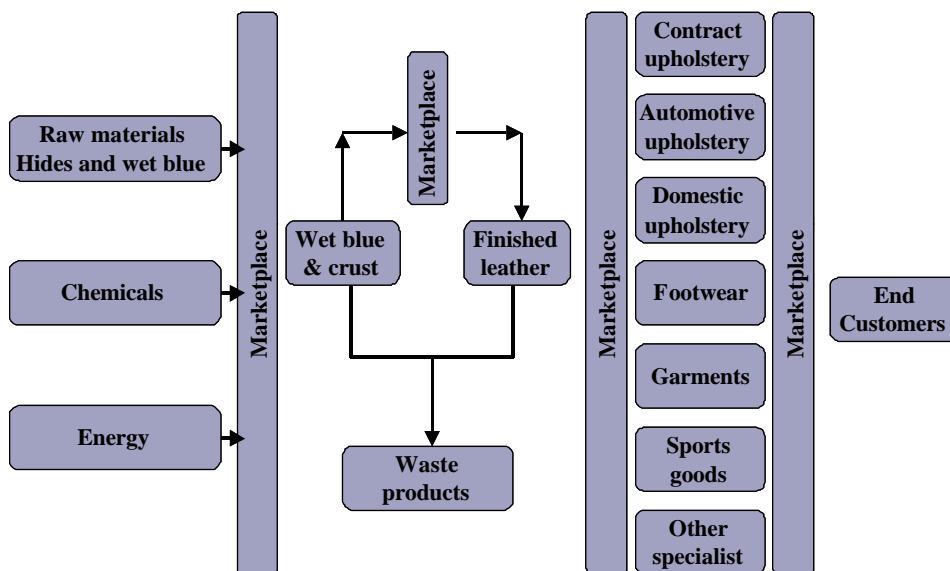
A key *e-trade* mechanism is the virtual marketplace. Figure 7.1 shows the scope for creating virtual market places at various points in the leather supply chain. These would include virtual marketplaces for:

⁴⁷ For example if a farmer orders a tractor, or a tanner or tanner association order some chemicals, they could be delivered immediately from a bonded house in the country, without having to wait 13 or more weeks.

⁴⁸ The term *e-trade* is used rather than *e-commerce*, *e-business*, *e-processes* and the host of other interrelated terms that are used.

- The producers of wet-blue to source their inputs, especially for the hides, skins and chemicals they need for processing.
- The trade in wet-blue and crusting for further processing to the finished leather stage - since a large number of the companies in Africa that process hides and skins are not capable of producing finished leather.
- The disposal of those by-products that are often discarded but that could be further processed into other products.
- Trading finished leather (and the other inputs required) further down-stream. This could assist the various sub-sectors that manufacture leather items to secure their raw materials.
- Those manufacturers who produce intermediate or end products. (These would be business-to-consumer market places.)

Figure 7.1 Virtual marketplaces in the leather industry supply chain



e-trade practices in the leather industry in developed countries

Even in the developed world the leather industry appears to be quite traditional in its approach and has, as yet, adopted very few *e*-trade practices. Companies in this sector seem to be comfortable with using *e*-mail, and quite a few have brochure-type web-sites, but very few use more advanced forms of *e*-trade. In the European Union the use of ICT (information and communications technology) varies at different stages of the supply:

- Overall, the tanning sector seems to use ICT the least. A survey of the adoption of *e*-trade in the UK tanning industry reported very little use of ICT beyond simple web-sites that provide company and product information, and the intensive use of *e*-mail for communications. The same survey reported very limited use of EDE (electronic data exchange) in recent years, and suggested that the industry was not about to adopt *e*-practices to any significant extent in the short to medium term.
- In the B2B (business-to-business) environment, it has been difficult to identify systematic application of these technologies, other than through third party markets.

- At the retail or B2C (business to consumer) stage, a number of companies have their own web-sites, some of which simply provide product details while others support purchasing online. Software packages for retail management are used even by small enterprises with two or three outlets.

It should be noted however that a number of virtual marketplaces and information portals relevant to the industry have been established in recent years, and appear on the Internet. Information about the extent to which these are used and their perceived utility was not available at the time of writing this report.

Potential e-trade applications

Appendix 7 presents examples of programmes and projects designed to encourage the adoption of *e*-trade and *e*-enabled production by SMEs in the leather industry. These include:

- The provision of information services to enterprises.
- The provision of advisory services to enterprises.
- Facilitating access to networks.
- The provision of training.
- Examples of initiatives in functional areas: *e*-marketing; *e*-enabled production; *e*-enabling the transaction cycle to provide automated orders and payments. The examples are from both developing and developed countries and could indicate starting points for action in Africa.

Encouraging the adoption of e-trade by the African leather industry

Potential applicability.

There are two important characteristics of the leather industry in Africa that should encourage the adoption of *e*-trade practices:

- The leather supply chain is generally international, with a high level of trans-border movement of material at different stages of production, both of leather through its various production stages and of finished goods such as footwear.
- The industry is quite fragmented in most countries, with a large number of SMEs at all stages of the supply chain. Here ICT could, for example, be applied to the dissemination of information about the sector and to the creation of virtual marketplaces.

There are also two critical problems in the industry, which the adoption of *e*-trade practices will not solve but to which ICT could bring some improvements:

- The industry frequently appears to suffer shortages of raw materials because of the rather low percentage of African hides and skins that are converted into leather. At this point of the leather chain there might be some scope for using ICT to access and organize the providers through intermediaries who form the bridge between the real world and cyberspace.
- There is a significant quality issue caused by the careless handling of the material from the point of slaughter right through to the production of finished leather. Since hides and skins are still generally seen as a by-product of the meat industry, quality is further impaired by the way the animals are handled. The Internet can contribute to raising awareness of the problem and to the dissemination of possible solutions, though largely perhaps through associations and intermediaries rather than directly to the enterprises themselves. *e*-mail newsletters and bulletins addressed to those connected and containing

basic information for the leather chain, examples of successes and failures, and websites, will have a great impact.

Barriers and solutions to the adoption of e-trade

There are however considerable barriers to the adoption of *e*-trade technologies in Africa at the infrastructure and enterprise levels:

- *At the infrastructure level:* There is much work to be done in developing the support network for *e*-enabled trade in Africa. Critical as barriers at this level are, though, they should not be allowed to block the discussion of other barriers.⁴⁹
- *At the enterprise level:* Companies in the leather industry in Africa have not been exposed to these technologies. Indeed in some cases they have a basic lack of experience in effective management. Any solutions that will be put forward will have to be relatively simple, specific in their objectives, and able to provide some additional profits to the companies. The argument of cost savings is a relevant one to put to these companies, even if the scales of operations are relatively small, but more convincing arguments are likely to centre around essential needs that the companies can themselves clearly recognize: the need to be visible; the need to have access to information about target markets and potential clients; the need to be able to communicate quickly and effectively with others in the industry in order to coordinate activities; the need to respond to fast changing market conditions; and the need to maintain a high level of quality.

Conclusions

ICT has the potential to have a big impact on the competitiveness of the leather sector even in the short to medium term. Although full conversion to web-based transactions (sales and purchases) may be some way off, even in the developed world, there are many ways in which the technology and the access to information and expertise through the Internet may be of immediate and specific benefit to African enterprises. It is also possible that solutions that are not feasible at the enterprise level can become so at the sector level, through the intervention of associations and other intermediaries.

Recommendations

At the enterprise level:

1. Increase the understanding of how ICT can be applied in practical ways by finding role model ideas that can translate into the African context and which are relevant to SMEs, and find a mechanism to make these examples known to companies. These examples should stress the business benefits to be gained by the technology, and emphasize the relatively small-scale investments that are required.
2. Improve management and trade related skills in many companies before applying the technology. At the same time, improving the basic skills of using technology will give managers insight into how it might help their company.
3. Explore the possibility of developing funding schemes both to address the use of ICT and to develop mechanisms for shared use of technology resources at community or industry level, and finance the purchasing of the technology.
4. Provide systematic exposure of companies to what is already available through the Internet and which they can access in existing networks. Once more, the regular production of news bulletins should be considered.

⁴⁹ Not forgetting traditional infrastructure (financial and transportation) as well as the information component.

At the network level:

5. Raise awareness in potential users of the usefulness of the technology so that the network can respond with ideas that are relevant to local conditions.
6. Encourage the development of software solutions by local providers (ultimately on a commercial basis) since many of the existing software solutions are beyond the needs and means of SMEs anywhere.
7. Facilitate and encourage the support network to obtain the skills, products and services that may act as catalysts for the adoption of suitable technology, and to help companies develop the skills needed to implement these ideas effectively. The technology support network and the trade development network as well as the sector organizations need to come together to develop appropriate solutions.
8. Articulate and present, clearly and effectively, ideas for demonstration projects that could be used as a basis to request funding for *e*-trade projects.

At the national level:

9. Address the lack of a communication infrastructure. This is a medium term issue. While addressing this it is important to note that there are many examples where ingenuity and determination allow both companies and those who support them to overcome these barriers. Raise awareness of those instances and encourage emulation. Encourage shared access to ICT and *e*-facilities to reduce costs in the short to medium term.
10. Identify a small number of very specific and practical areas in which the policy to facilitate the use of ICT could be changed. This is a more useful way of formulating practical and supportive policies that will make a difference than spending valuable time developing a comprehensive strategy which will prove to be too ambitious and have too many components.

Section Four: Benchmarking as a tool for understanding the position of African raw materials, leather and leather products in the global market

The concept of benchmarking

Camp (1989) defines Benchmarking as ‘the continuous process of measuring products, services and practices against the toughest competitors recognized as industry leaders’ in a given sector. Benchmarking was originally developed as a management tool to assist individual enterprises to identify their weaknesses and strengths in relation to competitors and ways of improving their relative performance. Its application has been extended to other levels: it has been used to assess and monitor the competitiveness of a country’s economy and of industrial sectors as shown in the examples given in Box 7.1.

Benchmarking the African leather supply chain

Table 7.3 includes the results of a qualitative benchmarking exercise in which 13 parameters of the leather supply chains of two East African countries are compared with those of Italy, one of the EU leaders in the leather sector. In this example the local leather supply chain and its individual components are positioned within the international context, and their competitive strengths and weaknesses in the international market are highlighted.

Developing a full understanding of the relative strengths and weaknesses of the leather supply chains helps actors in the national and regional chains to focus on those areas where

Box. 7.1. Examples of benchmarking applications

The Netherlands. Benchmarking was applied in the Netherlands in 1995 to evaluate the competitiveness of the Dutch economy.⁵⁰ The general results highlighted the need to create a modern economic structure, modernize some of the education policies, improve the function of the labour market, and strengthen the entrepreneurial climate.

Malaysia. The National Productivity Council of Malaysia conducted a productivity benchmarking exercise of the manufacturing sector in 1996, using Korea, Taiwan Province, Hong Kong and Singapore as a reference.⁵¹ One of the solutions proposed to improve the competitiveness of the Malaysian manufacturing sector was the launching of a Quality and Productivity Benchmarking Service, to be offered by the Malaysian National Productivity Corporation to groups of enterprises in specific sectors. There is now a Malaysian benchmarking model.

Pakistan. The Malaysian Benchmarking Model has been applied in Pakistan to the spinning sector, with the participation of 14 spinning mills. The parameters of a standard mill for Pakistan were developed in 2002. The characteristics of the standard mill are to be used by the local mills to assess their performance. The results obtained by the mills will be analyzed by the National Productivity Council. Once the gaps are identified, remedial strategies to improve the competitiveness of the sector will be recommended.⁵²

Table 7.3 Results of a qualitative benchmarking exercise of the leather supply chain

| Factors | Africa | | Developed country |
|----------------------------------------------------------|----------------|-----------------------------|-------------------|
| | KENYA | ETHIOPIA | ITALY |
| Availability of raw hides and skins | abundant | abundant | low |
| Quality of raw hides and skins | generally poor | low-high | high |
| Access to and cost of raw materials | generally easy | generally easy | difficult |
| Access to financial resources | difficult | difficult | easy |
| Sustained capital investment | low | low | high |
| Degree of vertical integration | low | low | high |
| Technological sophistication of facilities and equipment | low-medium | low-medium | very high |
| Process skills | limited | limited | very high |
| Research & development | limited | limited | very high |
| Product development | limited | limited | very high |
| Tradition in the industry | fairly recent | fairly recent | early |
| Unique skills within the sector | rare | rare | high |
| Product perception by the global market | poor | poor (high for sheep skins) | very high |

Source: Kiruthu (2002)

⁵⁰ Benchmarking includes key areas such as monetary policies, fiscal stability, research and training, physical infrastructure, and the tax system, and the influence of these on the country's competitiveness.

⁵¹ Among the bottlenecks identified were a low proportion of science students and the fact that R&D was considered risky and costly.

⁵² 'Benchmarking in Cotton Spinning' Dawn [http:// DAWN.com/report/germany18.htm](http://DAWN.com/report/germany18.htm), 09 December 2002.

the industry enjoys competitive advantages in the global context, and to design strategies to eliminate constraints and weaknesses in others. For example, an analysis of the results of Table 7.3 indicates the need to modernize technology and equipment in the two African countries, which in turn requires improved access to financial resources and the modernization and further development of the processing skills available to the chain. Policies and strategies to reduce these and other weaknesses should be analyzed jointly by governments and industry. Support for undertaking these tasks could be given by local associations, federations and international advisory services.

It should be noted that many of these weaknesses are not specific to Kenya and Tanzania. They are common to many leather producing countries in the region as discussed in the preceding chapters of this Blueprint.

Recommendations

The following recommendations are derived from the benchmarking exercise presented in Table 7.3:

1. Make optimum use of available and generally accessible resources as a basis for building up a competitive advantage with respect to Italy. This scope for competitive advantage, however, is restricted by the quality of hides and skins, hence the urgent need to introduce quality improvements starting at the animal husbandry stage and continuing through the whole supply chain.
2. Facilitate access to financial resources and promote sustained capital investment and vertical integration of the supply chain.
3. Introduce modern training in process skills to improve productivity and competitiveness.
4. Increase efforts in R&D and product development, and in acquiring technology, in order to be able to respond to market requirements. The use of the Internet by African enterprises would facilitate the efficient and timely flow of information between exporters and importers, thereby improving the responsiveness of the sector to market demand.
5. Make additional efforts in research and product development to exploit the unique traditions and skills within the concept of 'Product of Africa' directed towards the demands of niche markets.

These recommendations have already been widely discussed in previous chapters and can be found in the Blueprint Recommendation Tables, but are presented in this section again to indicate the potential applications of benchmarking to the African leather supply chain.

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Appendices

Appendix 1: Summary of actions required to improve domestic marketing and external trade in raw hides and skins (Leach 2002)

| Item | Description | Indicators | Verification | Assumptions |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aim | Improve domestic marketing and external trade in raw hides and skins. | Increases in the volume or value of production and/or trade in hides and skins. | National statistics, or surveys. | Production, trade and processing of hides and skins are likely to remain significant in the economies of many developing countries – despite variations in global demand. |
| Objective | Reduce defects on hides and skins. | Reduction of defects and improvements in quality (as determined by tanners). | National statistics or surveys in part, but predominantly feedback from tanners. | Reduction in defects and improvements in quality will add value to raw and semi-processed materials, and increase returns to producers and processors. |
| Output | Increased quantities of better quality hides and skins. | More, larger and better quality hides and skins. | National statistics or surveys in part but predominantly feedback from tanners. | Irrespective of variations in global demand, prices for larger quantities of better quality hides and skins are higher than the alternatives. |
| Activities | Establishment and maintenance of improved methods of preservation, storage and distribution of hides and skins by merchants – by teaching, training, and extension. | Reduction in the damage to hides and skins attributable to post-slaughter defects. | Feedback from tanners. | Post-slaughter defects are the defects most amenable to short-term and low cost interventions. |
| | Establishment and maintenance of improved slaughtering techniques at abattoirs and slaughterhouse, and subsequently at slaughter slabs – by teaching, training, and extension. | Reduction in the damage to hides and skins attributable to peri-slaughter defects. | Feedback from tanners and, to a lesser extent, hides and skins merchants. | Peri-slaughter defects are amenable to short/medium term and low cost interventions. |
| | Establishment and maintenance of improved animal husbandry and disease control techniques by farmers and livestock traders. | Reduction to the damage on hides and skins attributable to post-slaughter defects. | Feedback from tanners. | Pre-slaughter defects are the most serious cause of damage to hides and skins but are only amenable to long-term and higher cost interventions. |

| | | | | |
|--|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Establishment and maintenance of up-to-date market intelligence resources. | Wider general knowledge of the economic status of hides and skins, and more specific knowledge of the relative merits of different types and their worth. | Surveys of relevant stakeholders. | Knowledge of the hides and skins trade is essential to its sustained, commercial exploitation. |
| | Provision of easy access to micro-finance for entrepreneurs. | Prevalence of entrepreneurs engaged in the hides and skins trade. | Survey of the sector. | Many hides and skins are collected on a small scale, often in widely dispersed areas, by people with only limited access to finance (for working capital etc. |
| | Livestock development. | Increases in the productivity of animals. | National statistics, or surveys. | Ultimately, the production of more, larger, and better quality hides and skins is limited only by the low productivity of many animals in developing countries. |

Appendix 2: Identification and control of defects in skins in Ethiopia (Leach 2002)

Background

Ethiopia is the largest country in Eastern and Southern Africa with an area of 1,096,900km² and a population of about 52 million people in 1993. The country's livestock resources, among the biggest in Africa, are estimated to amount to 32 million cattle, 24 million sheep and 16 million goats. These animals provide draught power, milk, meat, fibres, fuel and fertilizer – as well as being a source measurement of wealth. They also provide hides and skins which are partially processed for export, or tanned and finished in the country's tanning, shoe-making and leather-goods industries. Exports of pickled sheep skins and wet-blue goat skins are second only to coffee as a source of foreign exchange and in 1995/6 amounted to US\$69.5 million.⁵³

During the early 1990s there was an increasing number of complaints about the quality of the hides and skins available to tanners in the country. The problem adversely affected all

⁵³ Br403.3 million, at Br5.80/US\$1.00.

aspects of the industry, but especially the income derived from exports which declined relative to coffee. The principal cause of the decline in quality (among sheep skins at least) was reported to be increased levels of ekek - the Amharic word for a cockle-like defect characterized by irritation and itching in the live animal and various types of lesions in the processed skin. Since 'haired' Ethiopian sheep skins have a long-established reputation internationally and constitute the bulk of the country's exports of semi-processed leathers by value, the decline in quality was considered especially serious.

Though the initial losses caused by ekek were incurred by the tanners themselves, the consequences ultimately affected many other people including hides and skins merchants, butchers and farmers. In some of the worst affected parts of the country, merchants were unable to buy and sell the local sheep skins, and farmers themselves were disadvantaged by increased morbidity and mortality among their animals, and reductions in productivity of for example meat.

Objectives

In response to these problems, FAO-sponsored projects were implemented by the Government of Ethiopia. The main thrust was to 'improve the profitability of smallholder livestock-raising through the control of skin diseases, to increase the production of high quality skins available to tanners and to assist in the development of markets for skins and leathers'. More specifically, the main activities of the project were as follows:

- Identify the causes of diseases referred to locally as ekek.
- Determine appropriate methods to control, or prevent damage to hides and skins.
- Provide practical methods of monitoring diseases which affect hides and skins.
- Devise a national strategy to promote improved utilization of hides and skins.
- Establish relevant teaching and training activities for hides and skins improvement.

The first phase of the two-year project began in October 1995 and was subsequently extended into a second phase which ended in February 1998. The second phase was restricted to resolution of the ekek problems on affected goatskins which were unavailable during Phase I. The total cost of the project was US\$340,000 (US\$260,000 Phase I and US\$80,000 Phase II).

Procedure

A multi-disciplinary team consisting of an economist, a pathologist and a hides and skins specialist was led by a veterinary diagnostician working in collaboration with the National Project Co-ordinator based at the National Animal Health and Research Centre in Sabetta. A preliminary examination of the problems associated with hides and skins production was made by undertaking visits to various parts of the country, and collecting information and comments from selected individuals and institutions related to the industry. Despite problems associated with finding hard and reliable data to confirm the reports of an escalation in the occurrence of ekek, the defect was found to be widespread, particularly among the sheep skins which form the mainstay of the country's exports of semi-processed materials.

In the absence of any firm indication of what was causing the ekek defect, a series of four field trials was completed at two sites in Ethiopia. These trials incorporated the use of infested sheep and goats, which had been treated with a range of physical and chemical interventions. Diazinon (Basudin, Ciba-Geigy) was diluted at the rate of 12.5ml of 60%

concentrate in 20 litres of tap water. Amitraz was diluted at the rate of 40g powder in 20 litres of water. The diluted acaricides were then sprayed on the sheep using a knap-sack sprayer until the sheep were thoroughly wet to the skins.

At various stages during the course of the field trials animals were slaughtered and the carcasses (and more particularly their skins) were subjected to examination in the laboratory at Sebeta, and in a commercial tannery (results provided in Table 17). During the course of the project the laboratory at Sabeta was supplied with additional equipment and consumables, and staff were provided with teaching and training assistance to assist, for example, with histopathological examinations.

Conclusions

The field trials revealed that the principal cause of ekek defect among sheep was infestations by biting lice (*Damalinia ovis*) and the sheep ked (*Melophagus ovinus*). Both parasites proved sensitive to control by organosphosphate-based pesticides such as diazinon (for example, Basudin® made by Ciba-Geigy and Ectoban® made by Kruuse) and amitraz (such as Tactic® made by Hoeschst). The parasites were also susceptible to control by removal of hair by hand-shearing.

Table 17. Results of examinations of experimentally treated skins in Ethiopia

Table 17a. Lice counts

| Treatment Group | Time (days) | | | | |
|-------------------|-------------|----|----|----|-----|
| | 0 | 30 | 60 | 90 | 120 |
| Diazinon | | 0 | 0 | 0 | 22 |
| Amitraz | | 1 | 66 | 2 | 17 |
| Shearing | | 9 | 68 | 1 | 73 |
| Nothing (control) | 25 | 15 | 16 | 14 | 96 |

Table 17b. Ekek counts

| Treatment Group | Time (days) | | | | |
|-------------------|-------------|----|----|----|-----|
| | 0 | 30 | 60 | 90 | 120 |
| Diazinon | | 0 | 0 | 0 | 0 |
| Amitraz | | 0 | 0 | 2 | 1 |
| Shearing | | 0 | 1 | 1 | 3 |
| Nothing (control) | 25 | 14 | 17 | 27 | 31 |

Table 17c. Grade of semi-processed leathers

| Treatment Group | Time (days) | | | | |
|-------------------|-------------|-----|-----|-----|-----|
| | 0 | 30 | 60 | 90 | 120 |
| Diazinon | | 3.0 | 1.2 | 1.8 | 1.0 |
| Amitraz | | 2.3 | 1.3 | 2.7 | 1.2 |
| Shearing | | 3.3 | 1.0 | 3.3 | 1.7 |
| Nothing (control) | 5.5 | 6.3 | 4.7 | 6.2 | 4.7 |

Table 17d. Weight gain

| Treatment Group | Time (days) | | | | |
|-------------------|-------------|-----|----|-----|-----|
| | 0 | 30 | 60 | 90 | 120 |
| Diazinon | 0.0 | 3.3 | | 3.8 | |
| Amitraz | 0.0 | 2.5 | | 3.9 | |
| Shearing | 0.0 | 1.8 | | 4.3 | |
| Nothing (control) | 0.0 | 0.9 | | 2.8 | |

The difference in quality between the sheep skins provided by treated and untreated animals was dramatic. After partial processing in the tannery sheep skins are normally graded from 1 to 6 with the first grade being perfect and free of any defects, and the sixth grade being a reject. The best skins from the untreated sheep in one of the field trials provided skins that averaged a grade 5.7 (reject). Conversely, all the treated animals provided skins that averaged at least a grade of 4.2. Accordingly, even the least effective treatment against ectoparasites provides a one-and-a-half grade improvement in the quality of the sheep skins.

Semi-processed sheep skins destined for export currently fetch US\$4.25 for a Grade IV and US\$2.50 for a Grade V - a difference of US\$1.75 per piece. If the results of the project's field trials were only applicable to the 1.3 million reject sheep skins (of 1995/6) then a one-grade improvement would generate an extra US\$2.3 million in export earnings. If the results could be applied across the country to all the current annual production of 11.2 million pieces of skins (and still only achieved a one-grade improvement) the extra foreign exchange would amount to US\$19.6 million. This figure could be considerably higher since many tanners attach no value to Grade VI skins, and a one-and-a-half grade improvement is also possible. The most expensive among the current treatments, exclusive of labour, was US\$0.30 (two times Br1.08) for amitraz, for each animal/skin treated!

Among the goats there was also a considerable amount of skin damage attributable to sarcoptic mange mites, but this was not contributory to the ekek defect per se. All the animals receiving some sort of treatment in the FAO field trials exhibited a general improvement in their overall health, with some treatments providing for reductions in morbidity and mortalities. The advantages to animal health and productivity generally (in terms of meat production and fecundity, for example) would reinforce the economic and financial justification for the control of ectoparasites, and provide the basis of a strategy for implementing any improvement activities.

In the absence of any real evidence of an escalation of the prevalence of the ekek defect in recent years in Ethiopia, it seems reasonable to assume that the tanner's pre-occupation with the problem may have been prompted by other factors of some significance to the application of the projects results. For example, there is a massive over-capacity within the domestic tanning industry, which has generated a scramble for raw material and an escalation in the price of sheep skins in particular. Inevitably under such circumstances, lower quality material (that previously went elsewhere) will be drawn into the local market. Coupled with this there may have been increased scrutiny of Ethiopia's production by those countries importing the semi-processed skins. Additionally, with changes in international markets, what was acceptable in the past may have become less acceptable in the present. In short, there are many factors affecting the industry and people's perception of defects and, hence, quality.

Recommendations

The FAO/Government of Ethiopia project identified the cause of ekek among sheep and goat skins and determined simple, cheap and effective solutions that worked well in field trials. The financial benefits to be derived from remedial work were substantial, and more than enough to offset the costs of any of the treatments identified. The next step was to implement the procedures on a larger scale.

Given the seriousness of the losses in foreign exchange attributed to ekek, some government representatives expressed interest in the immediate establishment of a national campaign to implement the improvements required. This could take the form of a compulsory treatment of all sheep and goats in the worst affected areas - all the highland areas - or across the country. However, even if this were successful in the short to medium term, it is likely that support for the campaign would begin to wane as people became used to the new level of quality skins in production.

Irrespective of any national campaign, it was recommended that some more sustainable, integrated method of establishing an improvement be sought. In this respect it was important to appreciate that while the project identified the practical solution to the ekek problem it did not necessarily demonstrate how this could be delivered in the field. There are, for example, weaknesses in the MoA's current extension services which would preclude any simple quick-fix. Moreover, no extension package aimed at hides and skins improvement alone is likely to be easy to achieve or fully effective on its own. Since most of the treatments effective on the skins also provide for significant improvements in animal health and production, it was recommended that these should be the target (with incentives) for improvements, with better quality hides and skins coming as an aside – albeit an important one. Given the various problems likely to effect implementation of any procedures aimed at by-products derived from farmer production, the best option would be the adoption of one or more pilot studies in selected areas.

Appendix 3: Classification of some defects in hides and skins and options for their control (Leach 2002)

| Origin | Category | Type | Examples | Control/Remediation |
|---------------|-------------------|-------|-------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Pre-Slaughter | Intrinsic factors | Breed | Ribbiness in merino sheep skins attributed to weight of fleece causing wrinkles. | None ⁵⁴ |
| | | Sex | Excessive thickness in bull hides that provide weak grain splits consisting mainly of vertically orientated papillary fibres. | None |
| | | Age | Growth marks on hides of old cattle attributed to age-related wrinkles. | None. |

⁵⁴ None short term and simple.

| | | | | |
|----------------|---------------------|-----------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| | Husbandry | Intensive | Physical and chemical susceptibility of skins from fast-growing animals attributed to 'immaturity' of skin protein. | Minor revisions to tanning process. |
| | | Extensive | Miscellaneous age-related defects attributed to slow-growing animals raised on ranches. | None. |
| | | Commercial | Chemical residues (hormones, pesticides etc.) attributed to inappropriate prophylactic and palliative treatments. | Use of approved medicines only. |
| | | Subsistence | Miscellaneous defects such as yolk marks attributed to use of animals for 'non-commercial' purposes. | Use of correct, properly fitted harnesses. |
| | Diseases | Genetic | Predominance of vertical collagen fibres in hides from breeds such as the Hereford. | None. |
| | | Viral | Lumpy skin disease. | Vaccination |
| | | Bacterial | Streptothricosis | Antibiotics |
| | | Fungal | Ringworm | Fungicides |
| | | Parasitic | Mange | Miscellaneous insecticides (or acaricides), or physical interventions such as shearing. |
| | | Allergies | Hyperkeratosis | Reduced exposure to allergen. |
| | Physical/mechanical | External damage | Branding, shearing, cauterization, scarification, abscesses, harnesses, goad etc. | Branding in correct location. Use of correct shearing equipment and techniques etc. |
| | | Miscellaneous | Urine and faeces irritations | Proper animal husbandry. |
| Peri-Slaughter | Slaughter | Bleeding | Veininess | Proper bleeding. |
| | Dressing | Ripping | Incorrect pattern/shape | Adherence to standard cutting lines. |
| | | Flay damage | Cuts and perforations | Use of proper tools and techniques. |
| | Physical/mechanical | Handling | Abrasion | Proper handling of animals and hides and skins. |

| | | | | |
|----------------|--------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| | | Storage | Heating | Proper storage of hides and skins |
| Post-Slaughter | Preservation | Autolysis | Generalized deterioration of hides and skins, attributed to self-destructive components in hides and skins. Only prevalent in materials preserved by some physical and chemical methods (other than drying and salting). | Minimization of storage at elevated temperatures. |
| | | Drying | Miscellaneous defects (over-drying, contamination, cracks, abrasions etc., attributed to use of ground (sun) drying. | Use of techniques other than ground drying (suspension drying, salting etc.). |
| | | | Case-hardening of hides; attributed to over-drying of surface layers during periods of high temperature and low humidity. | Control of wind speed (draught) through drying sheds. |
| | | | Putrefaction; attributed to protracted drying during periods of low temperature and high humidity. | Preliminary dipping is a disinfectant to provide short-term protection until hide or skin is dry. |
| | | Salting | Putrefaction, attributed to delays in the initial application of salt. | Prompt and proper application of salt. |
| | | | Putrefaction, attributed to use of insufficient salt. | Application of sufficient salt. |
| | | | Putrefaction, attributed to activity of salt-tolerant bacteria in salt without supplementary biocides. | Incorporation of auxiliary bactericides into salt used for preservation. |
| Post-Slaughter | | | Staining, attributed to use of incorrect types of salt. | Use of correct salt. |
| | Storage | Pests | Reduction in the substance of hides and skins, attributed to infestation by insects (Dermestes) and rodents (rats). | Control of insect and animal pests. |
| | | Moulds | Damage attributed to prolonged storage in damp conditions. | Use of proper storage facilities, with fungicides if necessary. |

| | | | | |
|--|----------------|--------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------|
| | Transportation | Abrasion | Damage of the grain layer attributed to incorrect packaging and handling of hides and skins. | Proper packaging of hides and skins. |
| | | Contamination and adulteration | Accumulation of 'foreign bodies' of various sorts. | Use of proper storage facilities. |

Appendix 4: ISO Publications for Hides, Skins, Leathers and Leather Products

ICS field, 59.140.20 (Raw skins, hides and pelts)

ISO 2820:1974 Leather — Raw hides of cattle and horses — Method of trim
 ISO 2820:1974/ Amd 1:1996
 ISO 2821:1974 Leather — Raw hides of cattle and horses — Preservation by stack salting
 ISO 2821:1974/ Amd 1:1996
 ISO 2822-1:1998 Raw cattle hides and calf skins — Part 1: Descriptions of defects
 ISO 4683-1:1998 Raw sheep skins — Part 1: Descriptions of defects
 ISO 4683-2:1999 Raw sheep skins — Part 2: Designation and presentation
 ISO 7482-1:1998 Raw goat skins — Part 1: Descriptions of defects
 ISO 7482-2:1999 Raw goat skins — Part 2: Guidelines for grading on the basis of mass and size

ICS field 59.140.30 (Leather and furs)

ISO 2417:1972 Leather — Determination of absorption of water
 ISO 2418:1972 Leather — Laboratory samples — Location and identification
 ISO 2419:1972 Leather — Conditioning of test pieces for physical tests
 ISO 2420:1972 Leather — Determination of apparent density
 ISO 2588:1985 Leather — Sampling — Number of items for a gross sample
 ISO 2589:1972 Leather — Physical testing — Measurement of thickness
 ISO 3376:1976 Leather — Determination of tensile strength and elongation
 ISO 3377:1975 Leather — Determination of tearing load
 ISO 3378:1975 Leather — Determination of resistance to grain cracking, and of crack index
 ISO 3379:1976 Leather — Determination of distension and strength of grain — Ball burst test
 ISO 3380:1975 Leather — Determination of shrinkage temperature
 ISO 4044:1977 Leather — Preparation of chemical test samples
 ISO 4045:1977 Leather — Determination of pH
 ISO 4047:1977 Leather — Determination of sulphated total ash and sulphated water-insoluble ash
 ISO 4048:1977 Leather — Determination of matter soluble in dichloromethane
 ISO 5397:1984 Leather — Determination of nitrogen content and 'hide substance' — Titrimetric method
 ISO 5399:1984 Leather — Determination of water-soluble magnesium salts — EDTA titrimetric method

- ISO 5400:1984 Leather — Determination of total silicon content — Reduced molybdsilicate spectrometric method
- ISO 5431:1999 Leather — Wet blue goat skins — Specification
- ISO 5432:1999 Leather — Wet blue sheep skins — Specification
- ISO 5433:1999 Leather — Bovine wet blue — Specification
- ISO 11640:1993 Leather — Tests for colour fastness — Colour fastness to cycles of to-and-fro rubbing
- ISO 11641:1993 Leather — Tests for colour fastness — Colour fastness to perspiration
- ISO 11642:1993 Leather — Tests for colour fastness — Colour fastness to water
- ISO 11643:1993 Leather — Tests for colour fastness — Colour fastness of small samples to dry-cleaning solutions
- ISO 11644:1993 Leather — Test for adhesion of finish
- ISO 11645:1993 Leather — Heat stability of industrial-glove leather
- ISO 11646:1993 Leather — Measurement of area
- ISO 15700:1998 Leather — Tests for colour fastness — Colour fastness to water spotting
- ISO 15701:1998 Leather — Tests for colour fastness — Colour fastness to migration into elasticized poly(vinyl chloride)
- ISO 15702:1998 Leather — Tests for colour fastness — Colour fastness to machine washing
- ISO 15703:1998 Leather — Tests for colour fastness — Colour fastness to mild washing

ICS field 61.060 (Footwear Including shoelaces)

- ISO 3910:1983 Rubber boots, unlined moulded
- ISO 6907:1994 Rubber footwear — Vulcanized resin rubber and vulcanized high-hardness rubber soling materials — Specification
- ISO 9407:1991 Shoe sizes — Mondopoint system of sizing and marking
- ISO 9986:1990 Composition cork for shoe outsoles
- ISO 10335:1990 Rubber and plastics footwear — Nomenclature
- ISO 18454:2001 Footwear — Standard atmospheres for conditioning and testing of footwear and components for footwear
- ISO 20866:2001 Footwear — Test methods for insoles — Delamination resistance
- ISO 20867:2001 Footwear — Test methods for insoles — Heel pin holding strength
- ISO 20868:2001 Footwear — Test methods for insoles — Abrasion resistance
- ISO 20869:2001 Footwear — Test methods for outsoles, insoles, lining and insoles — Water soluble content
- ISO 20870:2001 Footwear — Ageing conditioning
- ISO 20871:2001 Footwear — Test methods for outsoles — Abrasion resistance
- ISO 20872:2001 Footwear — Test methods for outsoles — Tear strength
- ISO 20873:2001 Footwear — Test methods for outsoles — Dimensional stability
- ISO 20874:2001 Footwear — Test methods for outsoles — Needle tear strength
- ISO 20875:2001 Footwear — Test methods for outsoles — Determination of split tear strength and delamination resistance
- ISO 20876:2001 Footwear — Test methods for insoles — Resistance to stitch tear
- ISO 20877:2001 Footwear — Test methods for whole shoe — Thermal insulation

Appendix 5: Organizations contacted for 'Marketing Requirements for Importers of African Hides and Skins'

(Leach 2002)

African Federation of Leather and Allied Industries
(AFLAI)
TUNIS
Tel + 216 1 791088
Fax + 216 1 792452
E-mail:
mzoughi.mzabi@carthagoil.com.tn

African Hide Trading
Dale King
Marketing Director
1, Studebaker Street
Markman Industrial
PO Box 2526
Port Elizabeth
South Africa
Tel + 27 41 4057000
Fax + 27 41 4611498
E-mail dalek@aht.kolokus.co.za

American Leather Chemists Association (Journal)
Texas Tech University
Box 45300
Lubbock
Texas 79409-5300
USA
Tel + 1 806 7427296
Fax + 1 806 7427298
Web <http://www.alca@leatherchemists.org>

Asociación de la Industria de la Piel para el Comercio
Exterior (Leather Industry Association of Spain for
Foreign Trade, ACEXPIEL)
Valencia, 359 3e
08009 Barcelona
Tel + 34 3 459 33 96
Fax + 34 3 458 50 61
E-mail inform@leather-spain.com

Asociación Española de Comercio Exterior de
Empresarios Fabricantes de Curtidos (FECUREX)
Hernán Cortés, 4-3e
46004 Valencia
Tel + 34 6 3510153
Fax + 34 6 3510081

Bomar Conocería S.p.A.
Alesandro Bomar
56024 Ponte a Egola
Via Pannocchia, 7
Pisa
Italy
Tel + 39 0571 49392
Fax + 39 0571 498870
Web www.bomar-spa.com
E-mail info@bomar-spa.com

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

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

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

Conceria Nuova Impala s.r.l.
 Mauro Vannucci
 Via Liguria, 22a
 56029 Santa Croce sull'Arno
 Italy
 Tel + 39 0571 30485
 Fax + 39 0571 35608
 Web www.nuovaimpala.com
 E-mail mauro@nuovaimpala.com

Consultative Group on International Agricultural
 Research (CGIAR)
 CGIAR Secretariat
 The World Bank
 MSN G6-601
 1818 H Street NW
 Washington, DC 20433 USA
 Tel + 202 473-8951
 Fax +202 473-8110
 E-mail cgiar@cgiar.org
 Web <http://www.cgiar.org>

East Hides Ltd
 Charlie Clarke
 136/144, Golders Green Road
 London NW11 8HB
 UK
 Tel + 44 20 84557797
 Fax + 44 20 82019269
 Web <http://www.easthides.com>
 E-mail office@easthides.com

Ermos International Corp
 Ernesto R Moos
 PO Box 671, 6612 Ascona
 Switzerland
 Tel + 41 91 7851400/Fax 1401
 E-mail ermos@bluewin.ch

Compassion in World Farming Ltd (CIWF)
 Charles House
 5A Charles Street
 Petersfield
 Hampshire
 England
 E-mail compassion@ciwf.co.uk

Confederation of National Associations of Tanners and
 Dressers of the European Union (COTANCE)
 Rue Belliard 3
 B-1040 Brussels
 Belgium
 Tel + 32 2 5127703
 Fax + 32 2 5129157
 Web <http://www.cotance.com>
 Email info@euroleather.com

Dermatech International Ltd
 Bill Mather
 Turnberry House
 1404/1410, High Road
 Whetstone
 London N20 9BH
 UK
 Tel + 44 20 83437272
 Fax + 44 20 83437288
 E-mail sales@dermatechint.com

Eastern and Southern Africa Leather Industries
 Association (ESALIA)
 ESALIA
 No. 13, Connaught Apartments
 Lantana Road off Rhapta Road
 Westlands, Nairobi.

Postal Address:
 PO Box 1391 00606
 Nairobi, Kenya
 Tel: 254 20 4446490-1
 Fax: 254 20 4445344
 Email: admin@esalia.org
www.africaleather.com

European Confederation of the Footwear Industry
 (CEC)
 Rue F. Bossaerts 53,
 1030 Brussels
 Belgium
 Tel: 0032 / 2 / 736 58 10

European Network for the Leather Industry, TANNET
Web www.euroleather.com

Federation Francaise de la Tannerie – Megisserie
(FFTM)
Mr P.Batigne, Président
rue de Provence, 122
F- 75008 Paris
France
Tel + 33 1 45 22 96 45
Fax + 33 1 42 93 37 44
Web <http://www.leatherfrance.com>

Food and Agriculture Organization of the United Nations
Shakib Mbabaali
Brian Moir
Peter Steele
Viale delle Terme di Caracalla
00100 Rome
Italy
Tel + 39 06 57053615
Fax + 39 06 57053152
<http://www.fao.org>

General Agreement on Tariffs and Trade
(Replaced by the WTO in 1995)

Genesis Ecotec s.r.l.
Gustavo A Defeo
Managing Director
Via Lombardia, 43
56029 Santa Croce sull'Arno
Italy
Tel + 39 0571 360608
Fax + 39 0571 360641
E-mail info@genesis-ecotec.com

GERIC
European Leather Research Centres
Web: <http://www.euroleather.com/cotance/engeric.html>

International Agricultural Trade Research Consortium
(IATRC)
University of Minnesota
Department of Applied Economics
231-G Classroom-Office Building
1994 Buford Ave.
St. Paul, MN 55108-6040

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

International Council of Tanners (ICT)
PO Box 501
Wellington 7654
RSA
Fax + 27 21 864 1272
E-mail tony@axehill.co.za

International Fund for Animal Welfare (IFAW)
International Headquarters
411 Main Street
P.O. Box 193
Yarmouth Port, MA 02675
Tel + 1 508 744 2000
Fax + 1 508 744 2009
E-mail info@ifaw.org
Web www.ifaw.org

International Labour Office (ILO)
 4, route des Morillons
 CH-1211
 Geneva 22
 Switzerland
 Tel + 41 22 7996111
 Fax + 41 22 7988685
 Web <http://www.ilo.org>

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

Italprogetti Engineering s.r.l.
 Sergio Dani
 Sales Manager
 Lugarno Paccinotti, 59a
 56020 San Romano
 Italy
 Tel + 39 0571 450477
 Fax + 39 0571 450301
 E-mail info@italprogetti.it
 LeatherXchange
 Tel + 34 93 4777755
 Fax + 34 93 4777760
 E-mail info@leatherxchange.com

Maxi s.r.l.
 Andrea Luchi
 Via Lazio, 42
 51018 Pieve a Nievole
 Italy
 Tel + 39 0572 802285
 Fax + 39 0572 951308
 E-mail a.rosa@arcadiatel.it

International Livestock Research Institute (ILRI)
 Simeon Ehui
 Coordinator
 Livestock Policy Analysis Programme
 PO Box 5689
 Addis Ababa
 ETHIOPIA
 Tel + 251 1 463495
 Fax + 251 1 461252
 E-mail s.ehui@cgiar.org
 Web <http://www.cgiar.org/ilri/>

International Trade Centre (ITC), (UNCTAD/WTO)
 Johanna de Paredes
 Palais de Nations
 1211 Geneva 10
 Switzerland
 Tel + 41 22 7300111
 Fax + 41 22 7334439
 Web <http://www.intracen.org>
 E-mail itcreg@intracen.org

LMC International
 14, George Street
 Oxford
 Tel + 44 1865 791737
 Fax + 44 1865 725485

National Association of Italian Manufacturers Footwear,
 Leathergoods and Tanning Machinery (ASSOMAC)
 Mario Pucci
 4a, Via Matteotti
 27029 Vigevano
 Italy
 Tel + 39 0381 78883
 Fax + 39 0381 88602
 Web <http://www.assomac.it>
 E-mail pucci@assomac.it

Natural Resources International (NRI)
 Park House
 Bradbourne Lane
 Aylesford
 Kent
 ME20 6SN
 UK
 Tel + 44 1732 878686/7
 Fax + 44 1732 220498/9
 Web <http://www.nrinternational.co.uk>

Office Malien du Betail & de la Viande Ibrahim Diane
 Managing Director
 PO Box 1382
 Bamako
 Mali
 Tel + 223 223858
 Fax + 223 224979

People for the Ethical Treatment of Animals (PETA)
 501 Front St.
 Norfolk, VA 23510
 Tel.: 757-622-PETA (7382)
 Fax: 757-622-0457
 Web :
<http://www.peta-online.org/about/contact.html>

Pittards plc
 John Moriarty
 Sherborne Road
 Yeovil
 Somerset
 UK
 Tel + 44 1935 474321
 Fax + 44 1935 427145
 Web <http://www.pittardsleather.com>
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Appendix 6: Activities of selected organizations working in areas related to the leather supply chain (Leach 2002)

IATRC (International Agricultural Trade Research Consortium)

The objectives of the IATRC are to enhance the quality and relevance of international agricultural trade research and policy analysis by:

- Encouraging collaborative research.
- Facilitating communication among trade researchers and analysts drawn from universities, government agencies and the private sector in a range of countries.
- Improving public understanding of international trade and trade policy issues.

ICHSLTA (The International Council of Hides, Skins & Leather Traders' Associations)

One of the ICHSLTA's primary objectives is 'to promote and organize joint action by all or any of the associations ... in any part of the world for the purpose of promoting, developing and protecting the trade in hides, skins and leather'. There are only 6 full members of ICHSLTA in Europe (France, UK, Holland, Italy, Norway and Sweden) and 6 associate members (Eire, Belgium, Greece, Spain, Switzerland and Turkey), so the scope of the organization is therefore not necessarily fully international. In the whole of Africa there is just one full member and one associate, the Ethiopian Tanners Association and the Meat Corporation of Namibia, respectively.

ICHSLTA is best known in the hides, skins and leather trades as publishers of International Contract No.6 for Raw Hides and Skins (which also includes crusts), and International Contract No.7 for Finished Leather. These are widely used by buyers and sellers and, for example, provide for arbitration in the case of contractual disputes. Resolving the latter might otherwise be very complicated and expensive in the case of international exchanges. The copyright contract documents are available in various formats and various languages. Very few traders use pro-forma invoices (in the buying and selling of hides, skins and leathers) since they lack a lot of the supplementary detail required to reduce the risk associated with such exchanges.

ICT (International Council of Tanners)

The primary objective of the ICT is 'to promote the interests of the leather industry internationally'. In Europe, in 2001, the ICT had 16 members (Austria, Finland, France, Germany, Hungary, Iceland, Ireland, Italy, Netherlands, Norway, Portugal, Spain, and Sweden. Switzerland, Turkey and UK) but there was only one member in Africa (South Africa). In 1996, ICT (and ICHSLTA) requested governments to remove quotas, taxes and other restrictions from international trade in the hides, skins and leather sector, items covered by Chapter 41 of the World Customs Organization.

Appendix 7: Examples of programmes and projects designed to encourage e-trade adoption by small and medium enterprises (Y. Gibbs, 2002)

The provision of information services to enterprises

There are quite a large number of such services offered, delivered by both traditional means and by ICT. A fairly early example is ISEFI: 'Information Service for the European Footwear Industry' from 1995-1997. This was a multi-country project which attempted to introduce an electronic information exchange for the footwear industry, and contained images of raw materials, catalogues of fashion presentations, design drawings in electronic format, and catalogues of finished products. The service was to be provided over a public network in text, graphics and images, and with a provision for video. The functionality included browsing, querying and trading.

Another example is BLC, a UK hosted site which provides a wealth of information about the leather sector. The information provided includes a bench-marking initiative, information about maintaining the quality of hides and skins, details of where training in different aspects of the leather business is available, and a host of other information.

Other sites have been established, some of which are international in character, and which also incorporate African members.

The provision of advisory services to enterprises

Despite searching sources of advisory services that would transfer expert know-how, by either traditional means or ICT, no specific examples of the provision of company specific advice were found. Sites generally feature frequently asked questions (FAQ), generic advice in short articles and white papers etc. However, the use of the www to enable companies to access advice on specific issues would be an interesting application. For example, one could envisage this as the medium for offering 'mentoring' services from those experienced in the industry, with communication through e-mail and web-based video-conferencing.

Facilitating access to networks

The basic function of marketplaces is to facilitate the exchange of information, goods, services and payments. This often includes:

- Providing electronic catalogues to put together what suppliers are offering.
- Matching buyers and suppliers through dynamic trading processes or electronic auctions.
- Facilitating the closing of inter-firm transactions through financial and logistics services.

Portals or marketplaces may also address the management needs of the sector: in business transactions these needs would include information processing and the provision of storage and communication networks. Applications in this area could include:

- The dissemination of processed procurement knowledge through the analysis of purchase patterns.
- The provision of product information and purchase expertise to improve sourcing decisions.

- The provision of assistance in streamlining workflows (automate certain business activities), and promoting inter-organizational collaboration (sharing common resources, collaborative project management) in order to support business process management.

Providers of such systems also need to consider ways of making it more attractive for companies to participate. Where companies have already applied ICT, this could include solutions to integrate member firms' back-end enterprise systems with the marketplace, the ability to integrate with third party business service providers, the standardization of data formats for exchanging business documents, and the implementation of common business processes among trading partners as well as the provision of services in systems analyses and implementation.

Many of the marketplaces and portals are essentially designed to provide access to suppliers, customers and others in the industry. Individual companies search for specific suppliers in order to engage in a one-off transaction or for longer-term partners, and contact those who fit their requirements. Usually these are found via search facilities that are pre-set according to given parameters. However, there is little if any activity aimed at developing communities. This may at least be worth exploring.

An interesting attempt to do this is the web-site INTELISHOE 'integration and linking of shoe and auxiliary industries'. This site (linked to an enterprise development project) was developed to facilitate the management of distributed production networks of Sees vertically integrated in the supply chain and covering the production of both shoe and shoe components. The overall aim of the project is to improve the uptake of IS technologies among small firms in the footwear sector and to stimulate innovative use of the technology to support new ways of working.

The provision of training

A number of programmers provide training by both traditional means and by ICT, including managerial capacity building.⁵⁵

SIPECO is a European project to promote best practices in the use of IT related to product design and manufacture in small companies in the footwear sector. Its objectives are to improve the level of use of IT, to assess the IT needs of participating companies, and to apply a new system of pattern designing and manufacturing.

SFMT is a multi-media based interactive training programme and tool relating to the technologies used in the footwear sector, based on existing training courses already designed for the sector but adapted to make the most of the new medium, and including a user manual.

MIFI is a project that aims to provide training in management and marketing, two areas affected by technological and market changes in the industry. The project will lead to the publication of a manual and the design of training software, which can be used for self-learning.

⁵⁵ Running an information dissemination seminar is part of this type of programme.

Examples of initiatives in functional areas

e-marketing: An interesting example of *e*-marketing, this time in India, is the 'e-marketers' initiative that combines a web-presence with the employment of young people to carry out traditional marketing activities that would encourage sales from the site. The project identified the products and producers to be included in the venture, designed a transactional website to make the products available, and recruited and trained what are called 'e-marketers' to publicize the venture and mobilize on-line traffic, and to provide online customer service. Each marketer was attached to a particular product segment featured on the website, and was provided with 24-hour access to the Internet. The *e*-marketers are paid for sales on a commission basis. The site also takes care of the entire transaction. The middlemen who previously kept prices paid to the producers very low are kept out of the transaction. There are plans to increase the scale of the project and to add more elements to the on-line presence.

e-enabling production: To encourage the application of ICT to business, the EU has implemented a number of initiatives aimed at SMEs in the leather industry. These include programmes to facilitate the use of computer-aided design in the footwear sector, the use of computer aided stitching, the development of common standards to enable inter-firm collaboration, and the facilitation of electronic trading.

e-enabling the transaction cycle: Some specific examples of initiatives to support the introduction of ICT in the leather industry in Africa do exist. An interesting application is 'buysouthafricaonline.com', which provides small and medium enterprises with a shop window to sell their products (although the offer is not directly focused on the leather industry) and supports the entire transaction process, allowing companies to sell to anywhere in Europe, USA and Australia at competitive transportation rates and with some security as the manufacturing enterprise only receives payment once the goods are delivered to the intermediary.

A number of initiatives have been taken in *e*-enabling the management of information, technology and physical assets, financial resources, human resources, networks and alliances, including:

- *Gathering business intelligence.* An example of this is participating in a benchmarking exercise. BLC Benchmarking club covers the sub-sectors of wet blue, automotive and domestic upholstery, clothing and small skins, shoes and leather goods. The last exercise, carried out in 1996-1997, covered over 50 countries.
(<http://www.blcleathertech.com/products/bench.htm>)
- *Gathering technical information.* An example of this is the EU funded project FAIR which gathered information about improving hide and skin quality, and showed the causes, effects and possible preventive measures. The conclusions of the FAIR report can be found at the following web-site address (<http://www.blcleathertech.com/fair/hide.htm> and <http://www.blcleathertech.com/fair/conclude.htm>)
- *Using ICT to enhance the effectiveness of traditional capacity building initiatives.* There are also traditional capacity building activities, such as the ICE initiative with African countries, which aims to build the capacity of enterprises and put them in direct touch with the marketplace by bringing representatives over to Italy on short missions. Such initiatives can be made more effective with the use of ICT to aid communication and collaborative working.

Potential applications of e-trade and e-enabled production to SMEs in the leather industry

| Area | Strategic Applications | Advantages/ Conditions |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. e-facilitated trade | Redefine target segments. Find new intermediaries. | Positions the company into narrower segments. Allows buyers to input into <u>specifications and product design</u> . |
| 2. Exchange of marketing information | Communicate with present and potential customers and stakeholders. | Develops visibility in portals and virtual market places. However <u>e-capability of client companies needs to be clarified</u> . |
| | Use the www to provide opportunities to disseminate information to customers, participate in portals and on line catalogues. | The website needs to be publicized through traditional channels and the company should ensure that the site is listed with relevant search engines. |
| | Use databases of shoe designs as an interactive catalogue to facilitate negotiations between the producer and retailers commissioning design. | |
| | SHOEPRIS presents a new shoe collection to the market. | Reduces costs of delivering samples. |
| | Collect data about site visitors. Use database to keep track of customer's characteristics. | Permits tracking customer characteristics and uses the information to target promotions to small groups of customers. |
| 3. e-enabled production and quality improvements | <p>Improve access to raw materials and inputs. CAD product design; CAD/CAM for design and manufacturing of customized insoles. Introduce flexible systems for footwear manufacturing within the supply chain through the development of a prototype planning and control system.</p> <p>Use expert system for leather cutting in shoe manufacturing. Create a fault mapping system in the tannery to detect and map flaws in leather before the finishing coat is applied.</p> <p>Use the Internet to shrink the supply chain in the distribution of goods.</p> | <p>Is flexible enough to meet changing demands and powerful enough to perform all the functions required while still being easy for SMEs to operate.</p> <p>Allows the planning of a complete lay before cutting. Can be used to train cutters.</p> <p>Can make products available worldwide without possessing a global distribution network.</p> |

Appendix 8: Import requirements for hides and skins (Leach 2002)

Market requirements cover a range of issues related to the quality of products, delivery times, and packaging, areas in which African leather products continue to have a poor international image. As a consequence, the global leather trade has insisted that brokers act as responsible intermediaries between African suppliers of semi-finished or finished leathers and the overseas buyers in order to minimize customer complaints. The use of brokers, however, is expensive and increases transactions time.

This section presents details of specific market requirements, while Appendices Nos.1 to 6 provide useful information for public and private agents engaged in the production and export of leather and leather products within the African supply chain. In many respects the regulations for the importation of hides and skins from Africa are no different to those for imports from any other part of the world. Indeed, under the EU general system of preferences, imports from many African countries may be excused the duty (up to 6.5% on 'carriage insurance and freight' values) that usually has to be paid on some semi-processed materials entering Europe.

The importers' requirements presented here relate mainly to the European market, especially the Italian market. These are, however, considered equally applicable to markets in the Near East and Far East, which, together with Europe, account for more than 80% of global imports of hides and skins.

Licenses and certificates: As long as the producing country allows the export of hides, skins and semi-processed leather, the procedures for imports to the EU are not too difficult. An Import Licence is required to begin operations, and thereafter Certificates of Origin and Health are required for each particular consignment. For any particular country in Europe it may be necessary to receive the imports at specified Border Inspection Posts. Problems may be experienced in trying to import materials from countries considered unable to provide Certificates of Health but these will have to be dealt with during the application for an Importers Licence.

Packaging and labelling: Packaging for raw and semi-processed material varies according to type and sometimes according to customer preferences. Although the general requirements are described in the applicable ISO standards (Appendix 4), any special requirements may be set out in International Contract No.6 for Raw Hides and Skins (which also includes crusts), and International Contract No.7 for Finished Leather. These documents, published by the ICHSLTA, are very widely used as the contractual basis for the buying and selling of hides and skins and semi-processed materials. The contracts describe all aspects of the exchange, including the procedures to be used if arbitration is required.

Examples of different packaging requirements include:

- Materials that might be prepared dried, moist or wet need to be protected against changes that might affect their water content, and hence the activity of any chemicals they may contain. Dried hides and skins, for example, will have to be protected against rain, dampness and the ingress of other liquid.⁵⁶

⁵⁶ Materials must also be protected against insects, vermin and mechanical damage.

- The form of transportation: Packaging may well have to be tailored according to the type (and duration) of the transportation process. For example, semi-processed hides travelling long distances by sea may require auxiliary chemicals to protect and stabilize them during a protracted journey. Conversely, lightweight hides or skins transported by air may require relatively less protection and no 'heavy' wrapping should be used.

The buyer of the material will normally prescribe packaging requirements, as well as the labelling specifications. Similarly, the packaging and labelling are often part of the grading standards that are in use in many countries and may also be subject to the same 'certification' procedure.

Labelling is often an overlooked detail of the trade in hides and skins, but is increasingly important for monitoring and control purposes and is often essential to most quality assurance programmes. Different types of hides, skins and leathers may need to be labelled individually, in bundles, or collectively, according to the buyers' requirements. Irrespective of the detailed requirements of the buyers, sellers must aim to guarantee that labels are legible, accurate and correspond to the accompanying documentation.

Contracts: Given variations in the types and sources of hides and skins, and in their destination and use, it is not possible to provide simple, prescriptive procedures for the contractual arrangements and exchange of hides, skins, leathers and leather products. However International Contracts No.6 for Raw Hides and Skins, and No.7 for Finished Leathers specify details of various items according to the buyers' and sellers' jointly-agreed requirements, that are applicable to the international trade in hides, skins and leathers.

The International Contracts are copyrighted commercial documents, which cannot be reproduced here. Copies are available in various formats, and various languages from the international headquarters of ICHSLTA or ICT (Appendix 6) or country-based organizations affiliated to them.

As with all legal documents the usefulness of International Contracts is limited to the extent to which they can be enforced. To enhance their effectiveness, International Contracts provide for arbitration. Arbitrators are organizations mutually acceptable to the buyer and seller. Although not always a perfect system, the International Contracts do eliminate many of the vagaries associated with the use of, for example, 'pro-forma invoices', which do not allow the specification of many of the supplementary details required to reduce the risk associated with exchanges of goods of any sort.

Well before the presentation, completion and signing of an International Contract, the prospective buyer would have negotiated most of the practical details of the deal with the seller. Producers will therefore know their obligations at a very early stage of the trade deal.

Maintaining communication with buyers: If traders in Africa are to establish longer term, sustainable trade, they must establish close associations with their customers. The most successful producers are those who understand what customers want and provide just that – and the people best qualified to tell them what the customers want are the customers themselves. Since customers in Europe are their principle targets, producers and potential producers in Africa must consult more closely with them. While in the past communication with customers was difficult and expensive, it is now increasingly easy, instantaneous and cheap over the Internet.

Negotiations between buyers and sellers prior to and during the preparation of International Contracts provide for the establishment of channels of communication between the parties involved. It is essential that communications be maintained throughout the course of a given transaction. Although many buyers in Europe are familiar with the communications problems common to some African countries, in particular in isolated rural areas, they wish, and need, to be kept informed of developments, or the lack of developments in the storage, handling and transportation of their purchase.⁵⁷

In this respect, it is worth emphasizing that the buyers of hides and skins in Europe are not unreasonable, and would not expect to receive a consignment from Africa within a week or two of making an order. But if a consignment were promised on a particular day, two months hence, punctual delivery would be expected around then. Regular communications between the buyer and seller should be to the advantage of both, in order that expensive planning and production problems for the buyer will be avoided. Apart from contributing to production and planning problems, delays in delivery may also contribute to deterioration in the quality of the materials, and hence to increased costs for the buyer.

Certification: Wherever possible, national or international quality standards for certification should be used (Appendix 4) and applied according to the procedures recommended. This would normally include certification by a designated organization in the country, or outside if the country does not have a certified institution. Many consignments of hides and skins are traded on the basis of long-term experience between the two parties involved. Inevitably, under such circumstances new entrants to the business are likely to be at a disadvantage because of their lack of an established reputation, hence the importance of certification.

The provision of samples of hides, skins or leathers would appear to be one way to overcome potential buyers' aversion to a new entrant to the trade. However, samples of hides and skins are particularly susceptible to unconscious bias, or deliberate abuse during the course of their preparation. Most importers are therefore very wary of samples, except as a preliminary determinant of possible interest, since they are often not considered as a reliable indicator of a bulk consignment.⁵⁸

Supply times and modes: While most European tanners are able to place orders for, and receive deliveries of, hides and skins from within the EU in three weeks or less, up to three months must be allowed for deliveries from Africa and most other parts of the world. Many tanners are trying to shorten their supply lines by bypassing conventional international hides and skins traders or agents, and establishing strategic supply alliances. This business mode facilitates the traceability (provenance) of raw materials, a major requirement of quality management systems like ISO 9000. Ultimately, traceability presents a valuable opportunity for respectable suppliers to capitalize on the quality of their materials once they become 'known' and appreciated by particular users.

Payment: There are different payment options available to traders. Once the price of the goods themselves is determined, other costs (transportation, storage, insurance, duties, taxes etc.) all have to be agreed by negotiation between the buyer and seller. Many buyers and sellers will have their own preferences and prejudices, which must be resolved prior to

⁵⁷ For example, if a consignment continues to remain stranded in a warehouse, buyers should be informed, even when solutions to the problem have not yet been found.

⁵⁸ Cipriani (2002).

completion of the financial section in the International Contract. At any particular time the final price to be paid may be affected by factors such as economic trends in prices (whether hides and skins are going up or down in price), the parties' credit worthiness etc. The goods may be paid cash-on-delivery or by revocable letters of credit (up to 60 days) or combinations of both options.

Grading and pricing. According to conventional grading procedures⁵⁹, hides or skins with no defects are designated Grade I (perfect) while others with many serious defects are designated Grade V (imperfect) or simply discarded. Anything of intermediate quality is classified as Grades II, III or IV. The defects that are considered during the course of grading include any of those factors that could affect the subsequent manufacture of leather.

The position of a defect is also significant, at least in hides. For example, defects in the butt are considered more serious than those in the shoulders, because the butt is normally expected to provide the best physical characteristics. Conversely, a defect in the belly or shanks would not be considered very serious because these parts provide softer, weaker leathers, and defective areas here are easily removed by trimming. A third and final aspect of grading is the intensity of the defect. For example, a shallow butcher's cut on the flesh surface may be dismissed as unimportant, but if the cut penetrates and perforates the dermis, it would be considered more serious.

International prices for hides and skins are subject to variation over a short period of time, and may not be applicable in all countries. However, there are some factors that should be borne in mind when determining or examining prices. For example, the theoretical prices for cattle hides presented in table A8.1 may seem to suggest that dried hides are more valuable than salted or fresh materials. However, it should be appreciated that after preservation the weight of wet-salted, dry-salted and dried hides is about 80%, 60% and 50% respectively of the fresh material. The prices given below would therefore provide exactly the same price, per piece, for hides of the same size.

Table A8.1 Price differentials based on preservation

| Preservation Method | Price (US/kg) |
|---------------------|---------------|
| Fresh | 1.50 |
| Wet-salted | 1.86 |
| Dry-salted | 2.50 |
| Suspension -dried | 3.00 |

When considering size alone, it is often assumed that big, heavy hides must be more valuable and attract higher prices than small, lighter weight materials, but this is not normally correct, although the usable surface area is certainly a most important characteristic for the tanner.

The point is that more area is provided by 1.0 kg of a 'light' hide than by 1.0 kg of a 'heavy' one. For example, a fresh 15 kg hide would be expected to provide about 17.5 dm² of leather per kilo, while a 30 kg hide would only provide 13.5 dm² per kilo. The yield of grain leather is therefore significantly greater in smaller hides. Beyond this, small hides are likely to come from smaller and younger animals with a smaller burden of pre-slaughter defects. For these reasons, small hides (calfskins, for example) often command premium prices.

⁵⁹ A grading system for hides and skins was developed under project UNIDO, US/RAF/88/100 and has been taken over by ESALIA. It is now being applied in a number of African countries within the projects sponsored by CFC.

Appendix 9: List of Invited Participants from Africa at ‘Meet in Africa 2002’, Tunis 6-13 October 2002

| Country | Name of invited participants | E-mail | Telephone | Address | Title and company | Participated |
|----------|-------------------------------|--------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------|-------------------------------------------------------|--------------|
| Algerie | Mr. Kara Nour Eddine | anexal@wissal.dz | | S.I.F.C.A Route Nationale No.1, Khraicia (Birtouta), Alger, Algerie | | Yes |
| Algerie | Mr. Benyounes Ahcene | leather_Industry@hotmail.com | 21321231605 | 1 Rue Kaddour Rahim Hussein Dey, Alger, Algerie | Chairman, General Manager, Leather Industry SPA | Yes |
| Benin | Mr. Marouf Albert Balogoun | | | Cotonou 03 BP 2084 | | Yes |
| Botswana | Mr. Kennedy Mmopi | | 267314236 | P.O Box 2414 Gaborone, Botswana | Managing Director, Kgalagadi Gameskin | Yes |

| | | | | | | |
|--------------|-------------------------------------|--------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----|
| Burkina Faso | Mr. Ido Bossou | dpia@fasonet.bf | 226306688 | Ministere des Animales, Secretariat General, Director of Livestock Production B.P. 7026 Ouagadougou 03 Burkina Faso | Hides and Skins Expert | No |
| Burundi | Mr. Bede Bedetse | Sobimac@usan-bu.net | 257228537 | Buragene Nr. 16 P.O. Box 1244 Bujumbura Burundi | General Manager, AFRITAN | Yes |
| Cameroun | Mr. Joseph Nkwamou | coradel@camnet.com | 2373370281 | P.O. Box 5702 Douala Cameroon | General Manager, SABELLE S.A. | Yes |
| Egypt | Mr. Mohammed Maher Abou El-Khair | idrac@link.com.eg | 2027942416 | 8 Le- Tolombat St., Apt. 4 Garden City, Cairo, Egypt | Managing Director, IDRAC+LTD | Yes |
| Eritrea | Mr. Semere Petros | semere@gemel.com.er | 2911186742 | 8/10 - Idghet Street, P.O. Box 1491 Asmara, Eritrea | General Manager & Chairman of Eritrean Leather Association | Yes |
| Ethiopia | Mr. Mulugeta Atsebeha | et.tanners@telecom.net.et | 251 1156144 | Wereda 16, Kebele 25, P.O. Box 12898, Addis Ababa, Ethiopia | Chairman of Ethiopian Tanners Association | Yes |
| Ivory Coast | Mr. Paul Klote | klotepaul@yahoo.fr | | 06 B.P. 6579, Abidjan | | Yes |

| | | | | | | |
|---------|------------------------------------|------------------------------------------------------------------------|----------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----|
| Kenya | Mr. Peter Mburu Gakwa | admin@esalia.org | 2545700229 | P.O. Box 205 Kiambu, Kenya | Managing Director, Joapet Enterprises Ltd. | Yes |
| Kenya | Ms. Muthoni Muturi | muthonimuturi@esalia.org | 2542446490/1 | ESALIA Secretariat, P.O. Box 1391 Code 00606 Nairobi, Kenya | Coordinator ESALIA | Yes |
| Libya | Mr. El Hadi Abdulla Lawaiyeb | | 21851650643 | Rata Hoes Factory, Al Rabdba Area, P.O. Box 373 Misurata, Libya | General Manager, RATA SHOES FACTORY | Yes |
| Malawi | Mr. Christopher Cyprian Kachiza | minci@malawi.net | 2651774089 | Ministry of Commerce and Industry PO Box 30366, Lilongwe 3 Malawi | Director of Industry, Ministry of Commerce and Industry | Yes |
| Mali | Mr. Ibrahim Diane | dianeiml@yahoo.fr | 2232223858 | Avenue de la Liberte Porte 1992, BP 1382 Bamako, Mali | Dierecteur General Adjoint, Office Malien du Betail et de la Viande (OMBEVI) | Yes |
| Morocco | Mr. Mohamed Aloulou | Fax: 212 23 32 47 22 | 21223324514/15 | CADITAZI, Mohammedia, Mohammedia/Moroc | Directeur Central Adjoint du Groupe | Yes |
| Namibia | Mr. Kevin Dawidow | Nakara@Mweb.com.NA | 61215003 | P.O. Box 20098 Windhoek, Namibia | Chairperson Leather Association, NAKARA | Yes |

| | | | | | | |
|---------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----|
| Niger | Ms. Arkiza Rabiadou Mindaoudou | dani@intnet.ne | 227725153 | Lux-Development S.A., Avenue des Nations, B.P.13254 Niamey, Niger | Reponsable Marketing, Programme du Developpement et de l'Artisant/Niger | Yes |
| Nigeria | Mr. Ebemezer Akanu Ebiam | office.nigeria@unido.org | 8046104095 | P.O. Box 2075, 11 Oyinkan, Ikoyi, Lagos, Nigeria | National President, Nigerian Association of Leather Products Industries | Yes |
| Nigeria | Ms. Ibezim Justina Oluchi | office.nigeria@unido.org | | P.O. Box 2075, 11 Oyinkan, Ikoyi, Lagos Nigeria | P.O. Box 2075, 11 Oyinkan Abayomi Drive, Lagos, Nigeria | Yes |
| Nigeria | Mr. Kandeh K. Yumkella | office.nigeria@unido.org | 23412672852 | P.O. Box 2075, 11 OyinkanIkoyi, Lagos, Nigeria | UNIDO Representative, P.O. Box 2075, 11 Oyinkan Abayomi Drive, Ikoyi, Lagos, Nigeria | Yes |
| Rwanda | Ms. Annoncee Kuradusenge | akuradusenge@yahoo.fr | 250574725 | Ministere du Commerce, de l'Industrie et du Tourisme B.P. 73 Kigali, Rwanda | Promotion des Investissements, Ministere du Commerce, de l'Industrie et du Tourisme | Yes |
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|--------------|-----------------------------|--------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----|
| South Africa | Mr. Andre Pelser | andre_p@mweb.co.za | 271218649315 | Mossop Western Leathers, P.O. Box 501, Wellington, South Africa, 7654 | Managing Director, MOSSOP Western Leathers | No |
| Sudan | Mr. Amir M. El Kobani | admin@esalia.org | 471717/16 | Afrotan, P.O. Box 1103 Khartoum, Sudan | General Manager AFROTANS & Chairman Leather+ Footwear Chamber | No |
| Tanzania | Mr. Elibariki Mmari | jaetltd@yahoo.com | 255744481070 | Station Road, P.O. Box 2781 Mwanza, Tanzania | Managing Director, JAE Tanzania Ltd | Yes |
| Tchad | Mr. Esperabe Jean Marc | jmesperabe@yahoo.fr | 235297959 | B.P. 484 Njamena, Tchad | Directeur General, ESPERABE PEAUX EXPORT | Yes |
| Tunisia | Mr. Mohamed Ben Abdallah | cncc.leather@email.ati.tn | | Centre National du Cuir et de la Chaussure, 17 Rue du Cuir - Z. I Sidi Rezig 2033 Tunis, Tunisie | | Yes |
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| Zambia | Mr. Chris Spyron | karavas@zamnet.zm | 2601221580 | Lumumba Road P.O Box 32822 Lusaka, Zambia | Managing Director, KEMBE Group | Yes |

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