



# ERITREA LEATHER VALUE CHAIN STRATEGY (2015 - 2019)

September 2014

**COMESA**  
**Leather and Leather Products Institute**  
**(COMESA/LLPI)**



# **ERITREA LEATHER AND LEATHER PRODUCTS INDUSTRY STRATEGY (2015 – 2019)**

## **Vision**

To develop internationally competitive leather industry that contributes to sustainable development through value addition.

## **Mission**

To transform the Eritrean Leather Sector into a competitive value chain specializing in the production of quality value added products through the application of modern and cleaner technologies, collaboration, capacity building, policy guidance and resource mobilization.

## **ACKNOWLEDGEMENT**

The Ministry of Trade and Industry (MTI) of the State of Eritrea is grateful to all individuals who in one way or another contributed towards the realization of the present Strategy because of their multitude. However, engines of the office of the COMESA-Leather and Leather Products Institute (COMESA/LLPI) deserve a forefront gratitude and respect for its financial and technical support and guidance.

The Ministry would also like to express its profound appreciation to several of its staff members who tirelessly devoted their times in providing diverse support during the preparation of the initial document.

Indeed the development of the Strategy document could not have attained this par excellence had it not been for the eagerness of all key stakeholders who actively participated and reflected their inputs in a transparent way during the validation process and beyond.

No fewer thanks go to all concerned who actively participated to make the validation and launching Workshops a success.

## STATEMENT BY THE HONOURABLE MINISTER, MINISTRY OF TRADE AND INDUSTRY

The aims of our economic policies are to cast off the shackles of poverty and to lead a better life. Despite a good start in the early years of our independence, however, the economy has been going through a lot of ups and downs in the years thereafter. If we take the manufacturing sector for example it has been characterized by low capacity utilization, decreasing employment, and a contribution to GDP that decreases from time to time.

To address and curve such trend the Ministry of Trade and industry has crafted the manufacturing sector strategic plan for 2012 - 2016 which envisions to revitalize the manufacturing sector through improving the share of the sector to GDP and improvement of the value added of the sector.

The leather and leather products industry being one of the major sub sectors that has a potential to contribute to the increased value addition and export; this industry specific strategy has been prepared by the Ministry of Trade and industry in collaboration with COMESA/LLPI.

I'm sure upon implementation and at the end the of the years of the LLPI strategic plan, Eritrea will have more skilled personnel in the industry, more value added exports of finished leather products; more earnings of foreign currency and the industry will make a transition to higher levels of productivity and value added production using efficient technologies and sustainable processes.

Allow me to express my gratitude and thankfulness to COMESA/LLPI for the assistance it rendered in crafting the strategy and for funding the validation and launching workshop. I'm sure the collaboration by COMESA/LLPI and other development partners will stand with us in the realization of the strategic plan.

I look at this launching as a great land mark to the journey together and hence I commend and invite the private sector, industry associations, our development partners and government agencies to play a meaningful active role in ensuring the implementation of this important strategy fully.



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## LIST OF ACRONYMS

CBA:	Cost Benefit Analysis
COMESA:	Common Market for Eastern and Southern Africa
COMESA/LLPI:	Common Market for Eastern and Southern Africa – Leather and Leather Products Institute
EIS:	Eritrea Institute of Standards
EIU:	Economic Intelligence Unit
ELAIA:	Eritrea Leather and Allied Industries Association
FAO:	Food and Agriculture Organization
F.O.B:	Free On Board
GDP:	Gross Domestic Product
HS:	Harmonized System
KG:	Kilogram
LLPI:	Leather and Leather Products Institute
LLPI:	Leather and Leather Products Industry
MFN:	Most Favoured Nation
MTI:	Ministry of Trade and Industry
PA:	Per Annum
RRPE:	Recovery and Rehabilitation Programme on Eritrea
SMEs:	Small and Medium Enterprises
US\$:	United States Dollar
SWOT:	Strengths, Weaknesses, Opportunities and Threats
UNIDO:	United Nation Industry Development Organization

## EXECUTIVE SUMMARY

The economy of Eritrea has experienced considerable growth in recent years, indicated by an improvement in gross domestic product (GDP) in October 2012 of 7.5 percent over 2011. A big reason for the recent growth of the Eritrean economy is the commencement of full operations in the gold and silver Bisha mine and the production of cement from the cement factory in Massawa. The real GDP (2009 est.): \$4.4 billion, and the annual growth rate (2011 est.).

Diaspora remittances from abroad are estimated to account for 32 percent of gross domestic product. Eritrea has an extensive amount of resources such as copper, gold, granite, marble, and potash. The Eritrean economy has undergone extreme changes due to the War of Independence. In 2011, Eritrea's GDP grew by 8.7 percent making it one of the fastest growing economies in the world. The Economist Intelligence Unit (EIU) expects it to maintain a high growth rate of 8.5 percent in 2013<sup>1</sup>.

The leather industry began to mushroom in Eritrea in the 1940's. In the 50's and 60's the sector grew significantly and was producing high quality finished leather and civilian shoes for Eritrean and Ethiopian market. Pickled and wet blue skins and wet blue hides were produced for export.

Since 1975 however, leather manufacturing activities became almost impossible. Some producers were forced to close down others were nationalized and lost their export businesses. In 1991 the nationalized enterprises became the property of the Eritrean government. In congruence with the Macro Policy's principal tenet stimulation of the private sector, all public leather and leather products establishments were privatized in late 1990's.

The Leather Value Chain in Eritrea has operating enterprises at the various stages of the chain. This is a good demonstration that the sector has the potential to expand and create growth opportunities that would contribute significantly to the economy and livelihoods of the populace. The manufacturing sector, like the other sectors of the economy, has gone through four distinct phases in the post independence period, namely:

- The rehabilitation and reconstruction period (1991 – 1995)
- Upswing period (1996 – 1997)
- War/conflict or down swing period
- Post war/conflict or recovery period (2001 - )

The analysis have revealed key issues that must be addressed by this strategy to ensure the transformation of the Eritrean Leather Value Chain, from predominantly producing and exporting semi processed leather to the production and export of value added products, such as footwear and an assortment of leather goods. The following are the main issues, which have been identified:

- The value chain has the potential; however it is being constrained because of shortage of finance, technology and skilled manpower;
- The footwear and leather goods industry is being undermined because the locally produced leather is limited in quality and variety;

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<sup>1</sup> <http://en.wikipedia.org/wiki/Eritrea#Economy>

- The location of tanneries around residential areas is possessing a high environmental risk;
- Finished products like footwear and leather goods are not competitive in terms of quality and price, in order to enter the regional and international market; and
- Limited collaboration and networking capacity along the value chain.

The above issues have influenced the formulation of the following objectives, which have a logical link to address the causes of the challenges, which are currently impacting negatively on the performance of the Eritrean Leather Value chain:

- Strengthen value chain networking, coordination and policy advocacy
- Improve access to finance across the value chain
- Improve quality
- Improve value addition and output through technical training and establishment of clusters.
- Improve the effluent treatment system of the tanneries

The implementation of the above would lead to the attainment of the vision of this strategy, which reads: To be among the top ten subsectors in Eritrea with regard to competitiveness by 2025.

It is fundamental to note that the attainment of the given vision would depend on the implementation of the Strategy with full participation of the Eritrean Government, Private Sector, Academia and Development Partners. It is therefore important that an interim Apex Committee is formulated to coordinate the implementation of this strategy. The committee members should be drawn from the stakeholders listed above.

# CHAPTER I: CONTEXT SETTING

## 1.0 Introduction

The economy of Eritrea has experienced considerable growth in recent years, indicated by an improvement in gross domestic product (GDP) in October 2012 of 7.5 percent over 2011. A big reason for the recent growth of the Eritrean economy is the commencement of full operations in the gold and silver Bisha mine and the production of cement from the cement factory in Massawa. The real GDP (2009 est.): \$4.4 billion, and the annual growth rate (2011 est.). Diaspora remittances from abroad are estimated to account for 32 percent of gross domestic product. Eritrea has an extensive amount of resources such as copper, gold, granite, marble, and potash. The Eritrean economy has undergone extreme changes due to the War of Independence. In 2011, Eritrea's GDP grew by 8.7 percent making it one of the fastest growing economies in the world. The Economist Intelligence Unit (EIU) expects it to maintain a high growth rate of 8.5 percent in 2013<sup>2</sup>.

The Leather industry has a long history in Eritrea, the first footwear factories were established in the 1950s, and this implies that footwear making has become part of the Eritrean Society tradition. It has been an important foreign currency earner over the years; however its significance is under threat from the mining sector.

Despite the projected decline in importance, it is fundamental that the Government should support this Sector because of its downstream linkages with livestock farming and also its potential to generate jobs and income at low cost unlike mining and other high tech industries. The impact of agro based value chain usually permeates the entire economy, unlike high tech industries and mining whose benefits may not trickle down to the lower social groups of the society. Above all the leather sector is based on a renewable feedstock, which is livestock farming.

## 1.1 Rationale for the Strategy

The motivation to design this strategy is mainly because Eritrea has the potential to develop a competitive and sustainable leather value chain, which would feed the domestic, regional and international markets with quality and competitively priced footwear and leather goods. In addition the COMESA Leather Strategy requests every member country to have its own national leather strategy. This strategy also responds to the national manufacturing development objectives of increasing value addition and COMESA leather strategic plan of 2011 – 2016.

The leather sector is believed to have a potential to increase its contribution to the economy in the form of employment, foreign currency earnings and manufacturing value addition. This draft sector strategic plan recognizes the lack of coordination in the leather value chain. The tanneries export semi-processed hides and skins (mainly pickled and wet blue) to foreign markets and process part of the bovine hides into finished leather for domestic consumption. The lack of trained personnel and modern machinery has impacted negatively on the quality of finished leather produced in Eritrea, consequently the effects are felt in the upstream subsectors of footwear and leather goods manufacturing. Compounded with other factors the leather

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<sup>2</sup> <http://en.wikipedia.org/wiki/Eritrea#Economy>

footwear and other leather product manufacturers are trapped in the production of low quality products that are not quality competitive for the export market.

Generally, this draft outlines the situation of the sector, the constraints inhibiting the growth of the sector, the strengths, weaknesses, opportunities and threats, the tasks to be accomplished during the strategy plan and the outcomes after the implementation of the strategic plan. The strategy aims to address the entire value chain and at the end of the strategic plan, it intends to transform the leather industry from exporting semi processed leather in to exporting value added finished leather products.

## **1.2 Overview of the Manufacturing Sector Structure and Performance**

The manufacturing sector, like the other sectors of the economy, has gone through four distinct phases in the post independence period, namely:

- The rehabilitation and reconstruction period (1991 – 1995)
- Upswing period (1996 – 1997)
- War/conflict or down swing period
- Post war/conflict or recovery period (2001 - )

### **1.2.1 Rehabilitation and Reconstruction Period (1991 – 1995)**

During the first phase, broad policy guidelines were prepared. Manufacturing establishments which were on the verge of collapse were rehabilitated through a program of Recovery and Rehabilitation program on Eritrea (RRPE). Through the program, some obsolete machinery and equipment were replaced and raw materials and spare parts procured. Consequently, capacity utilization of the sector was increased to about 80%, employment in the sector enhanced significantly, product quality improved and contribution of the sector to the economy enlarged.

### **1.2.3 Economic Growth (Upswing) Period**

In the two years of upswing period (1996 – 1997) the sector grew by about 8%. All the economic indicators of Gross Output, Manufacturing Value Added, Employment etc. showed a significant rebounding. The declaration of the economic policy through the macro policy and issuance of the Investment law, establishment of the Business Licensing Office attracted many potential investors to the sector. Most of the ex - public establishments were privatized. Industrial Estates were established in Adi Guadad, Merhano, and Adi Abeito. Land allocations to industrialists by the Dubarwa administration attracted significant manufacturing investments, which gave employment opportunities to many people living in towns.

### **1.2.4 War/Conflict Down Swing Period**

During these years, all the attention was diverted towards defending the territorial integrity of the country. It was a period when all human as well as material resources were mobilized. Despite that however, the economic indicators, except for employment, didn't show signs of declining. To the contrary, Manufacturing Gross Output, Manufacturing Value Added and wages and salaries grew by 81%, 64% and 26% respectively between the years 1998 and 2002 (Industrial Development 1991 – 2010, Symposium paper).

### **1.2.5 Post War/Conflict**

During the Post Conflict period the manufacturing sector's development was cyclical. Generally, in the years 2003 – 2005, the number of medium and large establishments, increased from 253 to 293. gross output from 2.2 billion to 2.7 billion Nakfa and value added from 679 million to 862 million Nakfa. In the years 2006 – 2008, the number of establishments decreased to 265, gross output to 1.8 billion and value added to 588 Million Nakfa. Employment in the manufacturing sector fell on average by 9% in the years 2003 – 2009. In the year 2009, the sector again started to rebound. Further, in this, period consequential to the war and its effects, legislations in regard to the usage and allocation of foreign currency, declared items proclamation and amendment of the establishment of the Business Licensing Office proclamation were issued. Following the two investment conferences in the years 2012 and 2013, new foreign exchange proclamation has been issued. The issuance of this proclamation has to a certain extent relieved manufacturing establishments, unsatisfied demand for foreign currency.

### **1.3 The Eritrean Industrialization Agenda**

The centerpiece of the strategy of Eritrea's development strategy was stated to be the establishment of an efficient outward looking private sector led market economy with government playing a proactive role to stimulate private economic activities. The Macro policy has thus been designed to stimulate private investment and engender economic revival and growth.

**Manufacturing Investment Policy:** The investment policy articulates the need for developing light manufacturing based on agro – industry as a start and for promoting high – tech industries and giving special attention to export oriented industries. Due to the strategic location of Eritrea, its industrial strategy is geared towards creating an environment that would facilitate efficient expansion of manufacturing output in industries where Eritrea has comparative advantage. These industries include textiles and garments, leather products, general agro processing, metal fabrication, plastic processing and conversion, construction materials and other resource based industries.

#### **1.3.1 The Leather Value Chain Strategy Relationship with the Eritrean Industry Policy**

Policies or strategies in any country should have a strategic relationship or a logical link with the overall development vision and aspirations of a country. Disjointed and contradictory policies normally introduce distortions and implementation challenges. Eritrea has a number of policies that are aimed at contributing to its sustainable growth and development. Given the importance of a strategic linkage that must exist among policies, the leather value chain strategy was evaluated to identify areas of common interface with the Industrial Policy of Eritrea

The five main objectives of the Eritrean Leather Value Chain Strategy are:

- Objective 1: Strengthen value chain networking, coordination and policy advocacy
- Objective 2: Improve access to finance across the value chain
- Objective 3: Improve quality
- Objective 4: Improve value addition and output through technical training and establishment of clusters.

- Objective 5: Improve the effluent treatment system of the tanneries.

### 1.3.2 Eritrean Industrial Policy

The Eritrean Industrial Policy provides long-term perspectives needed for the country to achieve sustained transformation of the economy. Its main thrust is improve the contributions of the manufacturing sector to the country's GDP, competitiveness improvement, diversification, equitable distribution of enterprises across the country and promotion of inter-linkages across the economy among others. The Table below illustrates the strategic linkage between the Eritrean Industrial Policy and the Draft Leather Value Chain Strategy. This is important as it enhances complementarily, which is fundamental for inclusive growth and development. The relationship between this strategy and the Industrial Policy is illustrated in Table 1.

**Table 1: The Strategy Relationship with National Industrial Policy**

<b>The Relationship between National Industrial Policy and the Leather Strategy</b>					
	<b>Objective one</b>	<b>Objective Two</b>	<b>Objective Three</b>	<b>Objective Four</b>	<b>Objective Five</b>
Improvement of share of manufacturing output in GDP, improvement of value added; improvement of contribution of manufacturing employment.			x		
Improvement of the competitiveness of locally produced commodities in international markets by improving their qualities.		x	x		
Diversification of output for export.		x	x		
Improvement of regional distribution of enterprises.	x				
Promoting linkages with other sectors of the economy.	x				
Industrial pollution protection and industrial safety control.					x
Issuance, enforcement and updating of appropriate policies, regulations, programs for meeting the demands of export enterprises, micro, small and medium scale enterprises and ensuring an enabling environment for their growth. Strengthening support services (export market information, technology transfer etc.) to encourage investors.	x				

## 1.4 Importance of the Leather Value Chain

### 1.4.1 Global Level

The leather value chain globally is estimated at over USD 100 billion.<sup>3</sup> A comparison of this value chain with other commodities reveals that its trade is greater than the combined trade of meat, sugar, coffee and tea; see Figure 1 below. Despite this immense importance, the sector has not received much attention especially in many developing countries, when compared with other commodities, whose production and marketing are championed by institutional support, for example Meat Commission, Tea or Coffee Boards etc. The absence of an institutional support to the leather value chain has retarded its growth, as it has not attracted the desired policy and financial support from Central Governments and other relevant stakeholders.

<sup>3</sup> The USD 100 billion excludes leather blended products, e.g. sports shoes and fashionable bags.

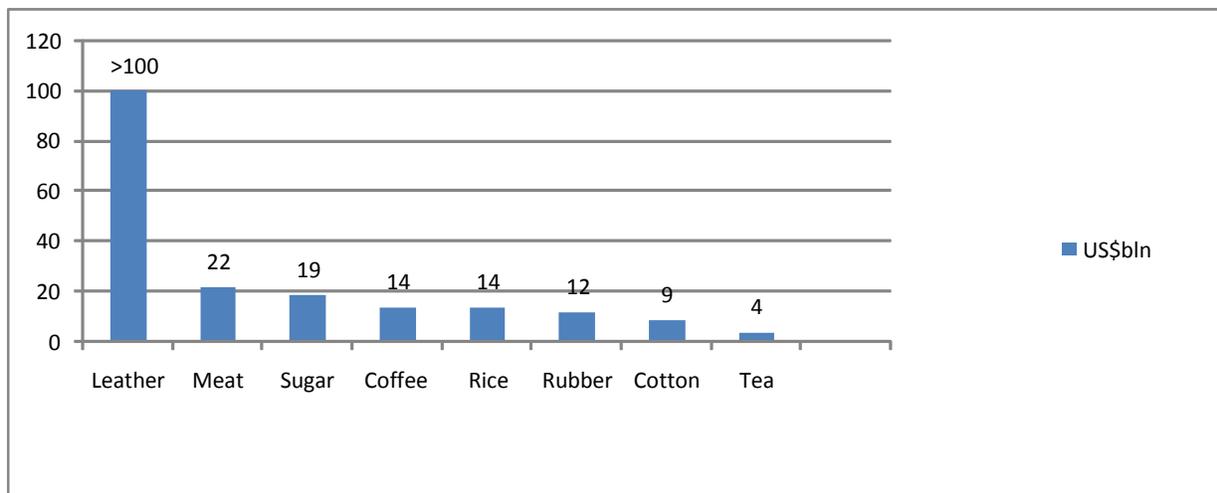


Figure 1: Global Importance of the Leather Value Chain

Source: Computed within COMESA/LLPI reports and FAO 2012

The global trade in the leather value chain grew over the period 1993 to 2011; the growth pattern for each product category is summarized in Table 4, below. There is a clear indication that growth in trade rose with the level of value addition, hence Eritrea must direct its attention towards the production and trade of value added products.

Table 2: Global Dynamics in the Trade of the Leather Value Chain

Product Category	Average USD billions)		Growth Rate (%)
	1993 to 1995	2009 to 2011	
Raw hides and skins	4.7	5.4	14.9
Semi tanned and finished leather	11.7	17.5	49.6
Footwear with leather uppers	22.7	44.9	97.8

Source: FAO (2012)

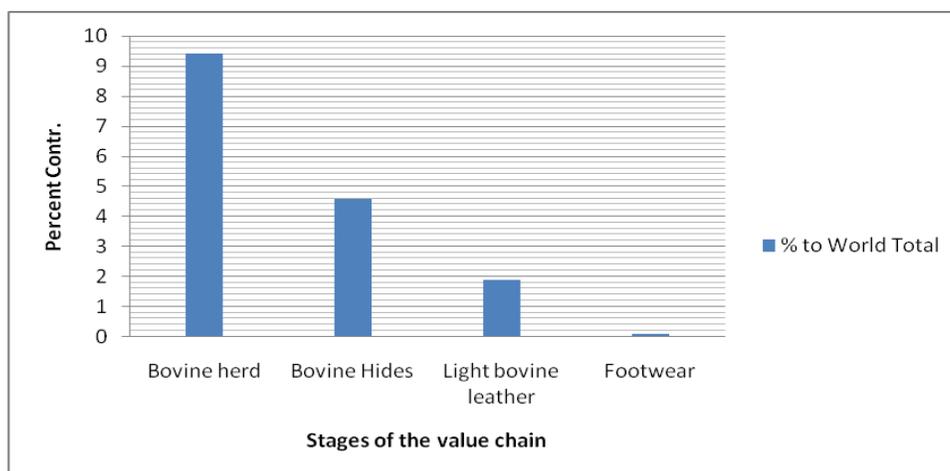
### 1.4.2 COMESA Situation

The COMESA region is made up of 19 African countries, which owns approximately 11% and 21% of livestock globally and in Africa respectively; however its contribution to the global trade is estimated at a paltry 3%. This is attributed mainly to a number of factors ranging from pre<sup>4</sup>-, peri<sup>5</sup>- and post<sup>6</sup>-slaughter challenges and limited or no value addition to hides and skins produced in the region. Figure 2 below illustrates the inverse relationship between the relative significance of the COMESA region in the global value chain, as it progresses downstream. Note that the illustration in the figure below relates only to bovine animals and bovine light leather and footwear. The illustrated situation is a true reflection of what leather proportion is obtained with regards to other types of hides and skins.

<sup>4</sup> Pre-slaughter defects – any damage caused by different factors like poor management genetic make-up, disease and nutrition etc.

<sup>5</sup> Peri-slaughter defects: any defect that occur by several reasons, like failure to rest animals for certain period of times before killing, incomplete bleeding poor flaying of hides and skins.

<sup>6</sup> Post-slaughter defects- groups of defects that take place after the hides/skins are flayed and include poor curing, poor handling, improper storage and poor tanning process



**Figure 2: Stages of the Value Chain**

The limited importance of COMESA in producing value added products, has a significant opportunity cost with regard to incomes and employment creation in the region. The continuous export of raw hides and skins implies a loss of wealth and jobs, which could have been generated in the region. It is fundamental that drastic measures should be taken to transform this industry in the COMESA region; already there are noticeable improvements in the past 10 years in Ethiopia. Eritrea and other countries in the region can therefore draw practical lessons from Ethiopia.

### 1.4.3 Market Size of Footwear in the COMESA Region

The COMESA region's market of footwear is estimated at 365 million pairs of shoes with a per capita of 0.85 pairs per annum. Assuming all these pairs of shoes are produced in the COMESA region, approximately 365,000 direct factory level jobs would be created, which would stimulate increased demand in the use of finished leather, soles, glues and other accessories consequently creating more indirect jobs. Total output of leather footwear in the COMESA region was estimated<sup>7</sup> at 80.6 and 92.3 million pairs in 2001 and 2011<sup>8</sup> respectively. The output figures exclude production from SMEs and other informal enterprises.

In 2012, USD 646 million worth of shoes were imported into the COMESA region from the rest of the world and this translates<sup>9</sup> to approximately 64 million pairs of shoes. The total market demand is 365 million pairs against a supply of 156 million pairs (imports plus regional production). With an estimated shortfall of 209 million pairs, which is not satisfied per annum? This is, therefore, a market opportunity for SMEs to capitalize without any or limited competition from locally established firms and imports. The figure below illustrates the sharp growth in footwear imports from the rest of the world, as opposed to slow or almost stagnant growth in intra trade in the COMESA region.

<sup>7</sup> FAO Compendium of Statistics

<sup>8</sup> FAO Compendium of Statistics

<sup>9</sup> Assuming that the import price of USD10 per pair

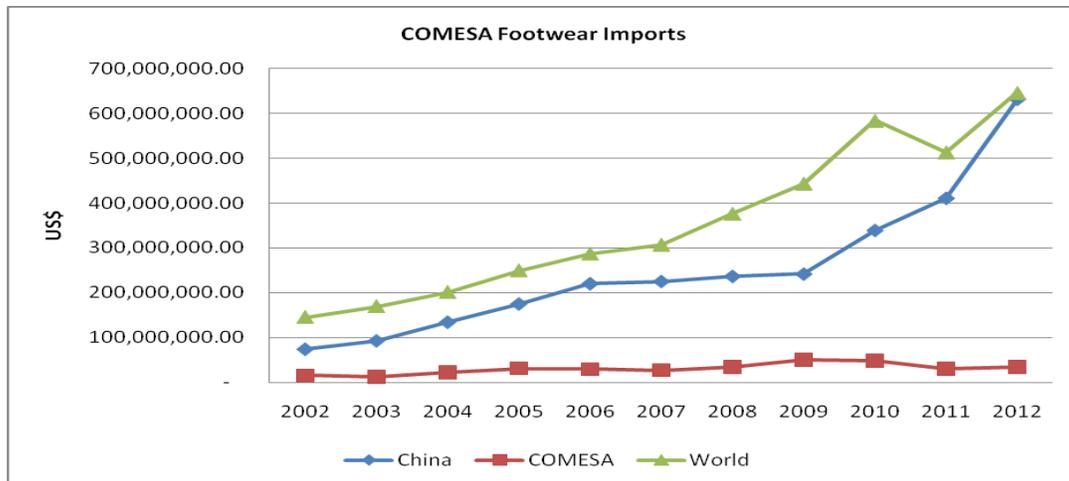


Figure 3: COMESA Imports of Footwear from COMESA Region China and the World

#### 1.4.4 Eritrea Situation

The leather industry began to mushroom in Eritrea in the 1940's. In the 50's and 60's the sector grew significantly and was producing high quality finished leather and civilian shoes for Eritrean and Ethiopian market. Pickled and wet blue skins and wet blue hides were produced for export. Since 1975 however, leather manufacturing activities became almost impossible. Some producers were forced to close down others were nationalized and lost their export businesses. In 1991 the nationalized enterprises became the property of the Eritrean government. In congruence with the Macro Policy's principal tenet stimulation of the private sector all public leather and leather products establishments were privatized in late 1990's.

The Leather Value Chain in Eritrea has operating enterprises at the various stages of the chain. This is a good demonstration that the sector has the potential to expand and create growth opportunities that would contribute significantly to the economy and livelihoods of the populace.

#### 1.5 Conclusion

This Chapter has laid the foundation for generating a comprehensive understanding of the Eritrea leather value chain, by looking at the structure of the economy, the relationship of some of the policies, with objectives of the leather value chain<sup>10</sup>, global, regional and national situation of the leather value chain. The next Chapter adopts the value chain approach to identify and analyze the dynamics and constraints in the value chain.

<sup>10</sup> Presented in detail in the Chapter dealing with the Strategy

# CHAPTER II: SITUATIONAL ANALYSIS OF THE VALUE CHAIN

## 2.0 Introduction

The situational analysis presented in this chapter gives a bird eye view of the status of the industry and assists in the identifications of factors that are constraining the growth of the Eritrean Leather and Leather Goods Sector.

## 2.1 Value Chain Map and Industry Structure

According to Kaplinsky and Morris (2000), mapping the range of activities in a value chain provides the capacity to decompose total value chain earnings into the rewards which are achieved by different parties in the chain. The Eritrean leather value is inclusive of livestock farmers, livestock traders, butcheries, slaughter facilities owners, hides and skins traders and exporters, tanners and artisanal footwear and leather footwear and goods manufacturing.

The schematic presentation of the leather value chain in Eritrean is illustrated in the Figure 4.

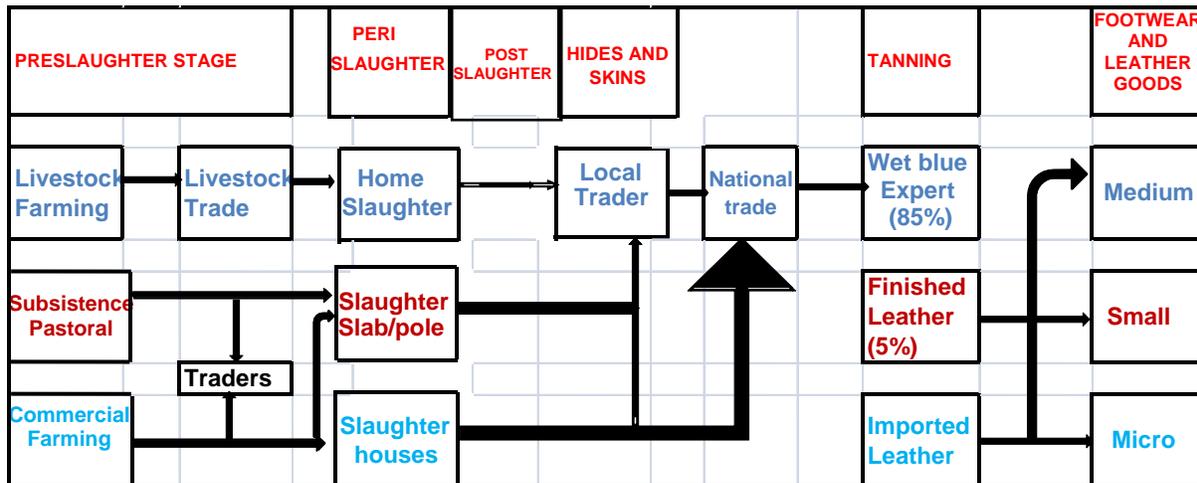


Figure 4: Eritrea Value Chain Map

Figure 4: To be reviewed by Eritrean Authorities

According to the Ministry of Agriculture Eritrea has 1.6 million cattle, 5 million goats and 1 million sheep. Due to the comparatively large population of goat and sheep and their high off take rates there is large quantity of raw material available. With off take rates set at 7% bovine and 30% skins, the country can collect 95,000 cattle hides, 1,375,000 goat skins and 300,000 sheep skins. The sheep and goat skins are well known for their quality. Both goat and sheep skins are preferred for leather garments and gloves manufacturing in addition to being used for shoe uppers. This indicates Eritrea has considerable potential in the leather industry. The Structure of the Leather Value Chain is summarized in the Table below.

**Table 3: Structure of the Industry**

<b>Value Chain Stage</b>	<b>Number of Enterprises</b>	<b>Percentage Contribution</b>
Slaughter Houses/slabs	?	
Tanneries	5	
Footwear Factories	13	
<b>Leather goods and Garments</b>	<b>2+5 (small scale)</b>	
<b>Total</b>		

**To be completed by Eritrean Authorities**

According to the Food and Agricultural Organization of the United Nations (FAO, 2012 estimate), the national population of bovine animals, sheep and goats is estimated at about 2 million, 2.3 million and over 1.7 million respectively.

The hides and skins recovery from the above population is also estimated at 20,000 pieces of hide 600,000 pieces of sheep skins and about 700,000 pieces of goat skins annually.

## **2.2 The Potential for the Eritrean Leather Value Chain**

The export of raw hides/skins, wet blue and crust entails forgone opportunities with regard to value addition, which could have been attained in Eritrea. Put simply, the export of wet blue means the exportation of jobs, foreign currency earning opportunities and other indirect benefits, which could have been generated in Eritrea had the large proportion hides and skins been transformed into finished leather. In addition, more losses are incurred due to the resultant production of low quality hides and skins, which fetches lower prices in the international markets. As it was reported, the prevalence of pre-, peri- and post- slaughter defects was very high in Eritrea this renders more than 60% of hides and skins produced to be categorized to grade three or worse.

A partial equilibrium model was employed to compute the potential losses that Eritrea was incurring per annum due to pre- peri- and post- slaughter defects and the export of 95% plus of total hides and skins in the country in wet blue state. Based on the hides and skins production of 2012, the Eritrea leather value chain has the potential of reaching a minimum direct value of USD 270 million per annum.

Gross losses incurred due to the prevalence of pre- peri- and post-slaughter defects were computed based on equation 1, and the apportionment between pre- and peri/post slaughter defects was based on a study by Mwinyihija<sup>11</sup> (2014), which found out that 48% and 52% of defects are attributed to pre and peri and post slaughter defects respectively. The losses incurred on bovine, sheep and goats hides and skins are based on the same equation. See equation 1 below, which was used in the computations of gross pre, peri and post slaughter defects.

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<sup>11</sup> Mwinyihija, M. (2014). A prognosis of the leather sector in Kenya; The upheavals and antidotes associated with value creation. *Management* Vol.4 (1),pp. 21-29.

$$= \sum G_1 P_1 - \sum(aTQ P_1 + bTQP_2 + cTQP_3 + dTQP_4 + eTQ P_5 + fTQP_6) \quad \text{equation 1}$$

Where

$G_1$  is 100% first grade

$P_n$  prices with respect to grades 1 to 6

a to f: Ratios of grades of hides

TQ: Total output of hides by a country

**Table 4: Estimates of Pre, Peri- and Post-Slaughter Defects on Bovine Hides and Goats/Sheep Skins (US\$)**

Type of Hides/Skins	Potential Earnings Assuming all Hides are First Grade	Actual Earnings	Loss	Pre-slaughter	Peri and post slaughter losses
<b>Apportionment Ratio</b>				0.48	0.42
Bovine	1,620,000	925,200	694,800	291,816	402,984
Goat and Sheep	4,160,000	2,718,950	1,441,050.	691,704	749,346
<b>Total Estimated Loss</b>	5,780,000	3,644,150	2,135,850	983,520	1,152,330

Source: COMESA/LLPI Computations based on FAO data.

The losses, which are incurred due to non value addition, are illustrated in the Table 4 below. The value addition threshold that is expected per stage is shown in the last column of the Table below. The cumulative loss is estimated at USD ### million, with regard to the second level of loss, which is associated with non value addition. If the loss associated with pre-, peri- and past-slaughter defects, which is illustrated in the table above is taken into account the total loss is estimated at USD \*\*\* million per annum.

**Table 5: Value Addition Potential and Estimated Losses**

Stage of Processing	Potential Earnings	Current Actual Earnings	Estimated Losses	Value Addition Threshold
Raw hides and Skins Current Value	3,644,150	1,081,436	2,562,713	1
Wet Blue	7,288,300	2,162,873	5,125,427	2
Crust	10,932,450	0	8,769,577	3
Finished Leather	29,153,200	0	26,990,327	4
Finished Products	31,189,400	19,678,410	109,348,117	12
<b>Cumulative Loss</b>			109,348,117	

Source: COMESA/LLLPI Computations based on FAO data

### 2.3 The Tanning Subsector

At present there are 5 tannery industries in operation (table ) the tanneries have 2.6 million sheep and goat skin soaking capacity and 224,000 cow hides soaking capacity per year. Together they also employ 620 persons. Keih Bahri tannery with 500,000 goat and sheep skin and 144,000 cow hides soaking Asmara Pickling with 1 million goat and sheep skin and 20,000 cow hides are the most largest tanneries. These two tanneries were state owned enterprises that were auctioned to the present owners. Most tanneries work below their capacity.

The Tanneries in Eritrea produce and export semi processed products. The type of products produced and sold are wetblue goats, wet blue sheep and pickled sheep. These products are further processed into finished products by the importer and they don't reflect any social and cultural implications on their packages and colors as they are sold as finished products. Although the price of finished products are more than threefold of the semi - finished products there is almost no export of finished leather because the companies don't have sophisticated technology, well skilled manpower, capable management, accurate information, adequate financing, etc. to enable them to compete with the foreign market climate.

### 2.3.1 Location, Site and Environment

The tanneries are distributed throughout the residential areas of the municipality of Asmara. The municipality of Asmara is considering relocating the tanneries to locations outside city the limits. This is for two reasons; a) the release of the land for residential development and b) the environmental, particularly effluent, management. It is important to note that the relocation of tanneries to centralized locations outside the main urban settlements is in line with international trends. The merits of such relocations is that it reduces the cost of effluent treatment per enterprises, as they would all use a common facility, additionally it eliminates the environmental hazards associated with tanneries being located within residential areas. See the Table below on the number and capacities of tanneries currently operating in Eritrea.

**Table 6: List of Operating Tanneries and their Capacity**

No	Name of establishment	Location	Soaking capacity per year		What is the level of capacity Utilization at the moment (to be inserted by Eritrean authorities)	Number of Employees
			Sheep and Goat Skin	Bovine hides		
1	Red Sea (Keih Bahri) Tannery plc	Asmara	500,000	144,000		335
2	Asmara Pickling plc	Asmara	1,000,000	20,000		125
3	Semhar Tannery	Ghindae	400,000	-		60
4	T. Baatai and Sons plc	Asmara	650,000	60,000		75
5	Petros and Family plc	Asmara	50,000			25
	Total		2,600,000	224,000		620

Source: Ministry of Trade and Industry

## 2.4 Footwear Subsector

### 2.4.1 Overview of the Footwear Supply Chain in Eritrea

Enterprises involved in footwear and leather goods manufacturing in Eritrea are constrained because of limited supplies of quality and variety of finished leather. In addition to this most of the suitable accessories are not manufactured in Eritrea and thus have to be imported. Footwear supply chain presented in the Table below, shows inputs that are required in the manufacturing of footwear.

**Table 7: Summary of Eritrea Footwear Supply Chain**

<b>INPUTS</b>	<b>IMPORTANCE</b>	<b>SITUATION Eritrea</b>
Finished leather	It contributes 50% in terms of value to footwear with leather uppers, thus this is the main input.	Most of the tanneries in Asmara export a large proportion of their output as wet blue, consequently impacting negatively on the upstream footwear leather subsector.
Cutting dies	It's a tool, which is used for cutting; it is very important in ensuring speed in cutting and also ensures consistency.	Is there local production in Eritrea?
Lasts	A <b>last</b> is a mechanical form/mould that has a shape similar to that of a human foot. Without a last footwear manufacturing is next to impossible	Is there local production in Eritrea?
Heels/soles	Second important component of a shoe after leather.	There is limited local production in terms of volume and variety in Eritrea.
Accessories	Important especially for finishing sandals and other types of footwear. (rivets and buckles)	Is there local production in Eritrea?

Table to be completed by Eritrean Authorities

The limited supply of the materials listed in the Table above is the main weakness in the footwear manufacturing business in Eritrea. It is imperative to note that leather is the main input in footwear or leather goods manufacturing business, contributing 40-50% to total cost. Eritrea has the potential to produce quality finished leather to support this subsector, which has the potential of creating employment, reduce poverty and also save foreign currency.

#### **2.4.2 Current Operations in the Footwear Subsector**

There are 13 large and medium shoe companies in operation currently. All of the shoe factories are located in Asmara and its environs. Together they can produce about 775,216 pairs of shoe per year.

The production of leather shoes has a long tradition in Eritrea, and hence relatively, many modern factories have been established. In the mid 1990s, the footwear industry suffered a serious crisis when Chinese imports of cheap synthetic shoes flooded the domestic market, driving many producers out of business. Further the crisis of the subsector was compounded by the border conflict with Ethiopia. About 80% of leather shoes produced used to be exported to Ethiopia; the eruption of the conflict however, removed this market. An alternative regional and international market has to be developed to ensure a growing market for Eritrean produces. Though through time consumer awareness about the durability, hygiene and comfort ability of genuine leather produced locally is increasing, leather shoes producers are still struggling to compete with Chinese imports.

Leather goods producers are numerous, most working on a small scale and an artisanal level. They produce a big variety of leather goods. The quality of the leather goods is quite good, even if not yet suitable to be launched on the international market due to the relatively low quality of

the leather. See the Table below of the list of footwear companies and their production capacities.

**Table 8: Footwear Industries Company Profiles**

No	Name of Factory	Capacity pairs of shoes per year	What is the level of capacity Utilization at the moment (to be inserted by Eritrean authorities)	Number of employees	Year of Establishment
1	Asmara Footwear Factory	29,458		25	1998
2	Bini Shoe Factory	112,500		75	/2001
3	Dahlak Shoe Factory	120,800		240	1950/97
4	Estifanos Ogbazgi Shoe Factory	86,112		25	1994
5	Gazelle Shoe Factory	40,249		35	1980
6	Hadera and Sons Shoe Factory	13,470		30	1993
7	Neguse and Family Shoe Factory	13,470		34	1950
8	Saba Shoe Factory	45,000		35	2003
9	Selam Footwear Factory	148,897		45	1995
10	Selamawit Shoe Factory	29,960		25	1983
11	Wegahta Berhan Shoe Factory	9,000		50	1988
12	Wina Shoe Factory	112,500		75	2005
13	Luwam Shoes Factory	12,000		15	1992
	Total	773,416		709	

Source: Ministry of Trade and Industry

The footwear subsector is generally considered as the highest consumer of leather material and a prospective generator of job opportunities. Gents, ladies and children's shoes which are produced are mainly oriented (90%) to supply the domestic market. Finished leather is produced locally but all essential accessories are imported. The tanneries are in general unable to supply quality finished upper and lining leathers to the footwear sub sector.

In the footwear production, there is large wastage because of defects in the finished leather. This is because the bulk of the leather is exported in its semi-processed form, and the low quality or the rejects from the semi-processed hides and skins are converted to finished leather for the local market. It is therefore imperative that a mechanism should be put in place to encourage the production of quality finished leather in Eritrea.

The footwear sub-sector lacks modern technology, there is no knowledge or application of computer CAD and CAM system in designing, pattern making/ grading throughout the sub sector. Eritrean shoe manufacturers used to produce good standards men's shoes as compared with immediate neighboring countries.

The main advantage of the footwear sector are primarily, the raw material base, labor is cheap and easily trainable, the proximity to the market Eritrea's location is ideal for the leather footwear market of the Middle East, Europe and the rest of the World.

The leather producers (as well as shoe producers) lack the required fashionable and well finished leather both in quantity and quality at present. They also lack in design capability and experienced work force in the production and marketing of the products to foreign markets.

In the industry sector, the lack of initiative to go on to higher stages of processing systematically and gradually has restrained the development of the sector. Therefore, there is a need to move

towards higher stages of processing particularly finished leather and an introduction to contemporary technology and training.

It is not easy to estimate capacity utilization, but many companies seem to operate below their capacity. For instance, in 1999/2001, the sector average was 53 percent (Rped, 2002). Later studies showed that the sector average capacity utilization was as low as 39% in 2007 and 30% in 2010. Such low utilization of capacity could arise from a number of factors such as lack of raw material, lack of demand etc. On the other hand, the existence of idle capacities indicates that the sector has a potential to perform better provided that constraints are overcome.

## 2.5 Employment in the Leather and Leather Products Sector

Statistical figures from the Ministry of Trade and Industry show that the number of Large and medium scale manufacturers in the leather and leather products industry (LLPI) has not showed any change in the years 2005 - 2012. Similarly, employment figures in the sector also did not show a significant change.

In 2008, the 26 LLPI establishments formed 10% of the total large and medium industries in the country. With a total of 1,459 employees, the sector contributed about 12% of the total employment in the manufacturing sector of the country. Compared to other sectors such as textile, which absorbs nearly 21% of the total manufacturing labor force, the leather sector has a lower labor absorption capacity. Tanning industries are capital intensive and employ less labor. The footwear industries are more labor intensive but are not many and cannot absorb huge labor.

**Table 9: Employment and Efficiency of Leather Industry**

Sub sector	Basic wages and salaries in '000 Nakfa	GVP '000 Nakfa	Value added (000 Nakfa)	Number of employees	Value added per GVP (%)	Value added per labor (000 Nakfa)	Value added per wage bill	Annual wage per labor
Tanning, dressing, luggage only	11,306	130,800	26,600	620	20	42.9	2.35	18,235
Footwear only	10,432	90,200	34,100	839	38	40.64	3.27	12,434
Aggregate figures for LLPI	21,748	221,000	60,700	1,459	27	41.6	2.79	14,906
Total Manufacture	197,165	1,773,500	452,500	12,466	26	36.3	2.3	15,816

Source: UNIDO INDUSTRIAL STATISTICS 2011, own calculation

## 2.6 Comparative Position and Performance of the Leather Sector

The efficiency of the leather and leather sector industry measured in terms of the ratio of value added to the gross value of product is higher (27%) than the national average of 26% (Table:3 above). Within the sub-sector, the footwear industry has higher levels of efficiency than the tanning, dressing, and luggage industry. Value added per labor or per wage bill as measures of productivity is also greater than the total manufacturing sector in the country. The average wage per labor in the footwear industry (1,036 Nakfa per month) is below other industries. The tanning industry (1,519 Nakfa per month) however performs better. On average, the leather sector seems to be relatively competitive in its levels of efficiency and productivity but pays less than the national average.

## 2.7 Production and Trade of Leather Shoes

Leather processing and production of leather shoes has a long history in Eritrea, as a result of this pedigree, despite the competition from cheap imported foot wears, substandard supply of finished leather, shortage of other accessories and financial constraints, production of leather shoes in the country is still significant. The following Tables are production and import of leather shoes in the years 2001 – 2009 by COMESA countries. See details in Table 10.

**Table 10: Production and Import of Leather Footwear**

Production of Leather Shoes (million pairs)																			
	Burundi	Comoros	DRC	Djibouti	Egypt	Eritrea	Ethiopia	Kenya	Libya	Madagascar	Malawi	Mauritius	Rwanda	Seychelles	Sudan	Swaziland	Uganda	Zambia	Zimbabwe
2001	-	-	1.0	-	49.5	2.2	4.4	1.5	2.5	0.3	0.3	-	0.1	-	3.8	-	-	2.0	4.2
2002	-	-	1.0	-	50.5	2.3	4.5	1.5	2.5	0.3	0.3	-	0.1	-	4.2	-	-	2.2	4.2
2003	-	-	1.1	-	51.5	2.4	4.6	1.6	2.5	0.3	0.3	-	0.1	-	4.8	-	-	2.2	4.2
2004	-	-	1.1	-	52.5	2.4	4.7	1.6	2.5	0.3	0.3	-	0.1	-	5.0	-	-	2.2	4.2
2005	-	-	1.1	-	53.6	2.5	4.8	1.6	2.6	0.3	0.3	-	0.1	-	5.2	-	-	2.2	4.2
2006	-	-	1.2	-	54.7	2.6	5.0	1.6	2.6	0.3	0.3	-	0.1	-	5.4	-	-	2.2	4.2
2007	-	-	1.2	-	55.7	2.7	5.1	1.7	2.7	0.3	0.3	-	0.1	-	5.5	-	-	2.3	4.2
2008	-	-	1.2	-	56.8	2.8	5.2	1.7	2.8	0.3	0.3	-	0.1	-	5.6	-	-	2.3	4.2
Imports of Leather Shoes (million pairs)																			
	Burundi	Comoros	DRC	Djibouti	Egypt	Eritrea	Ethiopia	Kenya	Libya	Madagascar	Malawi	Mauritius	Rwanda	Seychelles	Sudan	Swaziland	Uganda	Zambia	Zimbabwe
2001	-	-	0.3	-	0.3	0.2	-	0.1	4.6	0.2	0.7	0.7	0.2	-	-	-	0.2	0.3	0.1
2002	-	-	0.3	-	0.5	0.2	-	0.2	4.2	0.2	0.7	0.7	0.1	-	-	-	0.5	0.1	0.1
2003	-	-	0.2	-	0.4	0.2	-	0.2	3.8	0.2	0.5	0.5	0.1	-	-	-	0.6	0.1	0.2
2004	-	-	0.2	-	0.7	0.2	-	0.2	3.4	0.3	0.5	0.5	0.1	-	-	-	0.5	0.2	0.4
2005	-	-	0.1	-	0.6	0.2	-	0.2	3.0	0.1	0.6	0.6	0.1	-	-	-	0.6	0.3	0.2
2006	-	-	0.1	-	0.8	0.2	-	0.2	2.5	0.3	0.6	0.6	0.1	-	-	-	0.5	0.2	0.4
2007	-	-	0.0	-	0.6	0.1	-	0.2	2.0	0.4	0.7	0.7	0.0	-	-	-	0.8	0.1	0.1
2008	-	-	0.0	-	0.3	0.1	-	0.4	1.5	0.1	0.8	0.8	0.0	-	-	-	0.5	0.1	0.2

Source: COMESA Regional Leather Value Chain Strategy, 2011

## 2.8 Trade Dynamics of the Importance of the Leather Value Chain

The potential of the Eritrean leather value chain is estimated at US\$ 131 million, as illustrated in Table 4 that is if all the leather produced is converted into finished products. It is also estimated that wet blue exports could earn the country approximately US\$ 7.3 million dollars that is all hides and skins produced in Eritrean and collected and processed.

However this is in sharp contrast to the recorded export figures, which stood at US\$ 2.4 million and US\$ 2.1 million in 2002 and 2011 respectively. The gap could be explained by either the fact that a sizeable number of hides and skins in the country are not being collected because they are of poor quality or that the collection system may not be efficient. It is therefore important that an inquiry be undertaken to ascertain the cause of this gap, which is seeing the country losing approximately US\$ 4 million per annum.

The export pattern of wet blue was very unstable in the period 2002 to 2011, starting at US\$ 2.4 million, sliding down to slightly above US\$1 million in 2003, before reaching a peak of US\$ 2.8 million in 2008.

The post 2008 also displays the same pattern of oscillation. This could be explained by production challenges, such as limited access to finance, low productivity and production of poor quality. It is however fundamental to not that other countries in the region, such as Kenya and Eritrea have recorded a rapid rise in their earnings of wet blue exports in the same period after instituting an export tax on raw hides and skins.

Factory visits to Eritrean tanneries, which were conducted by COMESA and COMESA/LLPI in 2012 and 2013 respectively, showed that the Eritrean tanning industry needs to work on reorganizing their production processes, as the factory layouts in most of tanneries, needs to be altered to improve flow of material. Improvement in production flow and total quality management may improve the productivity and quality of wet blue and consequently improve the earnings to the country.

On the other hand export of footwear has remained under US\$0.5 million, which is a reflection that the industry is either producing not enough volumes to enter the export market or the quality is poor for the export market.

During a mission by COMESA/LLPI in 2013, footwear manufacturers asserted that their business was constrained because of foreign currency shortage, which was impacting negatively on the importation of accessories such as soles, sharks, glues and other materials, which are not produced in Eritrea. In addition it was also reported that the quality of finished leather, was below the global quality standards, to allow for the production of footwear that may compete in the regional and global market.

The export dynamics of wet blue (chapter 41) and footwear (chapter 64) are illustrated in Figure 4.

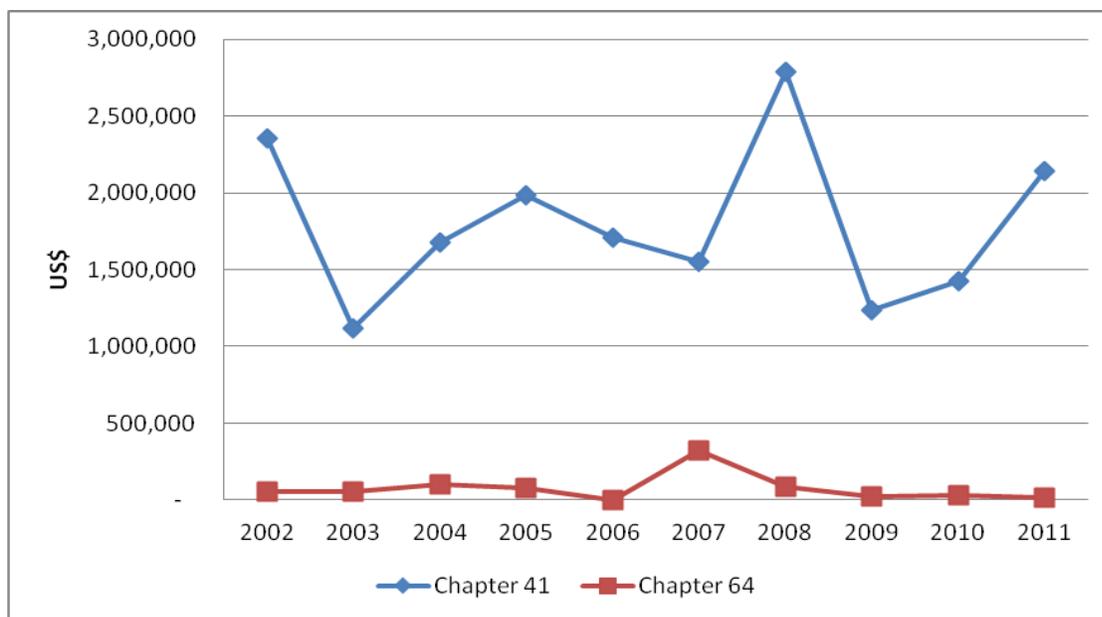


Figure 5: Wet Blue and Footwear Exports Trends

The relative importance of the wet blue and footwear exports as measured with their ratio to the total export bill of Eritrea has been on a down ward trend from 2002 to 2011. The two chapters contributed 34% and 1% in 2002 and 2011 respectively to the total export basket. Thus the importance of the leather sector as a foreign currency earner has slumped significantly over the the period under review.

The decline in importance in the leather value chain has been associated with a rise in the total exports of Eritrea from 2006 to 2009, and it regained in 2010, when total exports collapsed. However the year 2011, has witnessed an astronomic increase in Eritrea total exports from as low as US\$13 million in 2010 to US\$309 million in 2011. This jump could be explained by the entry of gold exports in the export basket of Eritrea. Despite this the Leather Value Chain still has the potential of regaining its importance if the value addition agenda is persued to its fullest. See the trends in the importance of the leather sector to the total export bill of Eritrea in Figure 5.

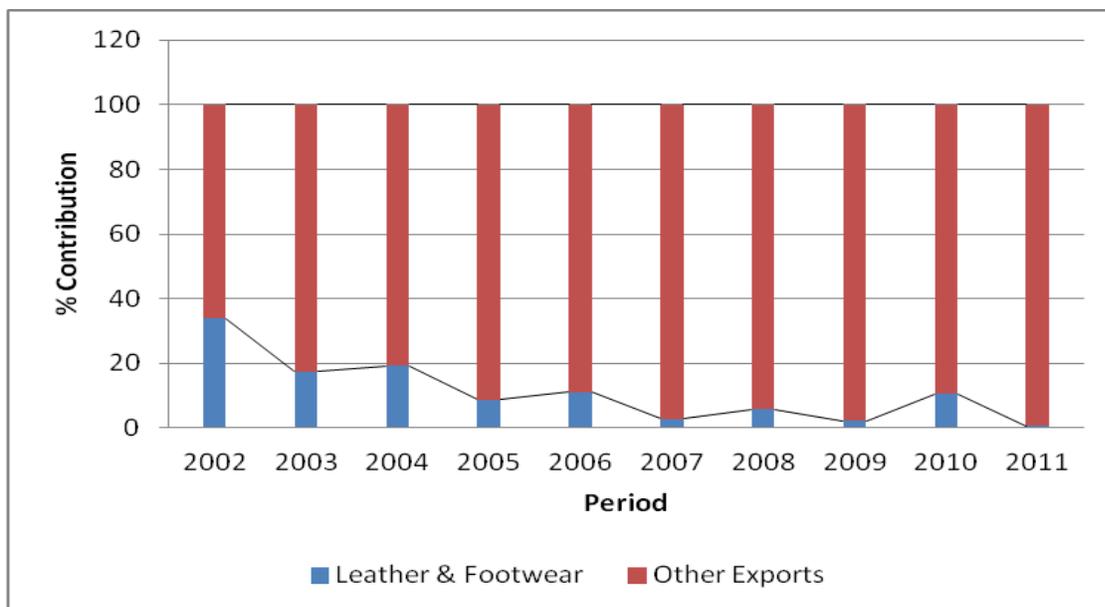


Figure 6: Relative Importance of the Leather Sector to Total Exports

Source: COMESA/LLPI based on COMSTATS

## 2.9 Regional Position

In the COMESA strategy 2011, Table 10 that classified COMESA member States by the level of development of their leather sector, Eritrea has been categorized with member States that are at low level of development or with countries that only produce and export raw hides and skins because tanneries were either closed down or don't exist at all. As described above however, Eritrea has more than 5 actively operational tanneries which process and export semi-processed skins and produce finished leather for the local manufacturing industry.

According to the same COMESA compendium statistics table of production of footwear, Eritrea's yearly average of footwear production is calculated as 2.48 million pairs. Considering the size of the country and size of population is relatively immense. The same COMESA Compendium also show that the region's production of footwear increased by 16% across nine

member countries. The growth rate includes Eritrea. Similarly the Table showed that there was a major change in the importation of leather footwear by the region, on average importation of leather shoes contracted by 3,178%, Eritrea's import of leather shoes however did not change (contract) significantly. These imply the possibility of trading between Eritrea's leather industry and similar industries in the region.

## **2.10 Conclusion**

The assessment illustrated in this chapter, has clearly shown the structure and performance of the Eritrean leather sector. It has identified the dynamics, challenges and strengths of the sector. In the next chapter the issues are clearly categorized, to create a platform for designing specific intervention mechanisms.

## **CHAPTER III: IDENTIFICATION OF ISSUES**

### **3.0 Introduction**

The Eritrean Leather Value Chain has the potential to grow and manufacture value added products for domestic, regional and international trade. If the leather and leather products industry is to revive and be ready for intra - regional trading opportunities, there is a need to address the problems of the sector at every level. Some of the problems of the sector that need to be addressed are as follows:

### **3.1 Main Issues to Manufacturing**

The manufacturing of footwear and other leather goods is being constrained mainly because of the following factors:

- Low capacity utilization mainly due to limited availability of finished leather and difficulty to export
- High cost of electricity
- High cost of finished leather which is sold at international prices

The above situation is further aggravated because of limited marketing information and intelligence mainly because of the following aspects:

- Poor dissemination of market information by support agencies
- Low market research capabilities. Most of the manufacturing enterprises are SMEs
- Lack of information on statistics and industry baseline figures
- No agency or association is helping with buyer identification and the existing private sector associations are not providing the required support to their members.

In addition to the above two levels of issues the sector also faces quality and design constraints, which are an outcome of the following fundamental aspects:

- Quality of available finished leather is inconsistent;
- Lack of a range of accessories and availability of design;
- Leather goods manufacturers are struggling to compete domestically with cheap imports;
- Lack of trained and skilled staff to improve design and manufacture efficiently;
- No product development skills and low ability to create innovative designs;
- Insufficient training available for design, middle management and operations;
- Poor design;
- Eritrea's leather shoes not competitive due to low quality leather and high cost of imported raw materials; and

- Lack of diversification

## **3.2 Value Chain Stakeholders**

### **3.2.1 Leather and Leather Products Industry Association**

There is an association that represents the leather industries in Eritrea known as Eritrea Leather and Allied Industries Association (ELAIA) The tanneries, leather product establishments and leather footwear establishments are members of the Association. This sector association however, is weak due to lack of funding, and human resources administrative skills.

### **3.2.2 Financing**

The banks in Eritrea are reluctant to loan money and require high collateral (more than 175% to the value of the loan.) Another financial constraint for the industry is lack of foreign currency. The tanneries are allowed to use their export earnings for their purpose and hence to certain extent, lack of foreign currency may not be a priority problem to the sub industry. For the footwear and other leather industry however shortage of foreign currency to import raw materials, machineries and spare parts is one of the major bottlenecks for their growth and limited capacity utilization.

### **3.2.3 Freight**

Eritrea hides and skins exporters have a competitive advantage due to their strategic location reducing associated costs like insurance; this helps the exporter to sell at higher prices. Freight agreement between the importer and exporter is FOB which means that transportation cost of Eritrean goods is lower, travels shorter distance to the market and quicker than other African countries.

### **3.2.4 Eritrea Institute of Standard (EIS)**

The Standard Institute in Eritrea.( EIS) is mandated to deal with any standard affairs. Like any standard institute in other COMESA countries however, the EIS is not effective. It has limited laboratory equipments to check the quality and consistency of imported items. The institute suffers due to lack of equipments and skilled personnel.

### **3.2.5 Technical and Training Institutes**

There are many technical and vocational institutes in the country, but none of them renders trainings in leather and leather related areas. Due to this the availability of skilled personnel in the area is limited. And even those few who are considered as having certain skills in the area are aged people with limited formal trainings.

## **3.3 Environmental Matters**

Tanneries use large volume of water, and require treatment of waste waters. The concentration of the effluent produced is mainly due to soluble protein, but there are many other components including chromium salts, sulphides, ammonia, salts and a variable pH.

There are also solid wastes to consider. Effluent treatment produces sludges that either requires tankering from site or dewatering, then disposal. There are other solid waste products such as fleshing, hair, trimming, shavings and buffing dusts. There is no value to these products and they are generally deposited to landfill.

The tanneries are distributed throughout the residential areas of the municipality of Asmara. And environmental matters affect the whole tanning industry irrespective of location and as overview the whole sector needs to:

- Reduce pollution at source
- Adopt measures to reduce water use
- Address effluent discharges.

Tannery effluent system is nonexistent in most of the tanneries but two tanneries have installed basic effluent treatment plants. Environmental aspect needs to be addressed.

### **3.4 Constraints to Growth**

The following problems are identified under each of the three leather sub-sectors: hides and skins, tannery and leather products. Under hides and skin sub-sector, the problems identified were lack of training and insufficient extension system resulting in poor husbandry, low off-take rate, defective and scarce hides and skins; poor hides and skins physical infrastructure resulting in lack of marketing system based on quality. Under the tannery sub-sector, the identified problems were poor management practices, inadequate pollution management, outdated equipment and technical constraints, lack of product diversification resulting in low production of finished leather and low capacity utilization. Such limitations of tanneries have put less pressure on the upstream hides and skin sub-sector. Under the leather products sectors, the problems were insufficient availability of finished leather, poor workshop management, difficulty in component procurement, lack of skilled manpower, lack of shoe engineering and technology resulting in poor design and low diversification. In addition weak market information system on leather and leather products, weak negotiation skills in international market were believed to have negative impacts on the competitiveness of the sector.

**Table 11: SWOT Analysis of the Value Chain**

STAGES	STRENGTH	WEAKNESSES	OPPORTUNITIES	THREATS
<b>CROSS CUTTING</b>	<ul style="list-style-type: none"> <li>• Government commitment</li> <li>• Available raw hides and skins;</li> <li>• Political stability</li> </ul>	<ul style="list-style-type: none"> <li>• Limited access to suitable finance;</li> <li>• High cost of finance in comparison to rate of return in the industry</li> <li>• Limited or lack of collaboration of chain players</li> <li>• Limited support or collaboration with Academia, Private and Government</li> <li>• Land locked;</li> <li>• Weak information systems</li> </ul>	<ul style="list-style-type: none"> <li>• Large scope for value addition</li> <li>• Growing domestic, regional and international market for value added products</li> <li>• Interest by Government to support the sector</li> <li>• Large pool of trainable work force</li> </ul>	<ul style="list-style-type: none"> <li>• Global Economic</li> <li>• Slow down</li> <li>• Synthetic materials</li> <li>• Influx of second hand leather products</li> </ul>
<b>HIDES AND SKINS PRODUCTION</b>	<ul style="list-style-type: none"> <li>• Growing and diversified livestock base</li> <li>• Growing demand for meat, increasing the slaughter rates</li> </ul>	<ul style="list-style-type: none"> <li>• Weak or inadequate extension support</li> <li>• Poor handling of live animals;</li> <li>• Weak animal husbandry system</li> <li>• Poor slaughter facilities</li> <li>• Poor flaying and conservation techniques;</li> <li>• Poor quality of hides and skins</li> <li>• No or inadequate collaboration as there is no Association for Livestock Traders, Butcheries and Hides and Skins Collectors;</li> <li>• Absence of a structured system to support the production of quality hides and skins;</li> <li>• Uniform price on hides and skins irrespective of grade</li> </ul>	<ul style="list-style-type: none"> <li>• Interest by Government to support the sector</li> <li>• Renewable resource</li> <li>• Readily available markets</li> </ul>	<ul style="list-style-type: none"> <li>• Contagious diseases and parasites</li> <li>• Quality of hides and skins continues to deteriorate</li> </ul>
<b>TANNERIES</b>	<ul style="list-style-type: none"> <li>• Available Production Capacity to produce up to wet blue</li> <li>• Available work force</li> <li>• Availability of raw materials;</li> <li>• Export ban helping to improve the availability of raw hides and skins</li> <li>• Adequate installed capacity for the production of wet blue</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate technology, technical and production management skills;</li> <li>• Dependent on the importation of the bulk of the chemicals;</li> <li>• Most of the tanneries are located in an unsuitable environment</li> <li>• Poor environmental control;</li> <li>• Narrow product distribution channels</li> <li>• Limited or no interest to produce finished leather;</li> <li>• Absence of Government policy support to promote production of finished leather;</li> <li>• Small market size for finished leather in Eritrea;</li> </ul>	<ul style="list-style-type: none"> <li>• Growing domestic and regional demand for finished leather</li> <li>• Policy and legal support</li> <li>• Room for improvement;</li> <li>• Niche markets for rabbit and fish leather;</li> <li>• High value addition opportunities from wet blue to finished leather</li> <li>• Growing international demand of leather products;</li> <li>• Renewed regional and international interest to support the industry</li> <li>• Government interest to develop a sector specific policy</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental hazards, given the proximity to lake Victoria, may disrupt production</li> <li>• Increased competition from synthetic and imported products;</li> <li>• International markets view Eritrea as a raw material supplier rather than finished leather;</li> <li>• Poor working standards, which are contra international labour standards in some of the tanneries</li> <li>• Growing market demand for footwear</li> <li>• Production of by- products</li> </ul>

STAGES	STRENGTH	WEAKNESSES	OPPORTUNITIES	THREATS
<b>MANUFACTURING</b>	<ul style="list-style-type: none"> <li>• Large pool of trainable human resources;</li> <li>• Good collaboration among footwear and leather goods manufactures</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate machinery and equipment</li> <li>• Limited availability of quality finished leather and accessories;</li> <li>• High cost of finance</li> <li>• Inadequate technical training facilities;</li> <li>• Limited collaboration with upstream and downstream chain players</li> <li>• Absence of a specific policy support</li> <li>• Absence or lack of qualified footwear and leather goods designers;</li> </ul>	<ul style="list-style-type: none"> <li>• Growing domestic and regional demand for finished leather</li> <li>• A big and growing market deficit for footwear;</li> <li>• The industry is still in infancy hence there is great potential for expansion;</li> <li>• Renewed interest to support the development of leather cluster regionally and internationally;</li> <li>• Government interest to develop a sector specific policy;</li> <li>• Potential Government procurement for military, policies and other Government institutions</li> </ul>	<ul style="list-style-type: none"> <li>• Intense competition from cheaper imports from Far East;</li> </ul>
<b>SUPPORT INSTITUTIONS</b>		<ul style="list-style-type: none"> <li>• Underequipped Technical Training Centres</li> <li>• Limited interaction with Standards Boards;</li> <li>• Limited support and interaction with Academia;</li> <li>• No advanced specialized courses to support the leather value chain</li> </ul>	<ul style="list-style-type: none"> <li>• Renewed interest by Academic institutions to work with the sector</li> </ul>	

### **3.5 Conclusion and Emerging Priority Intervention Areas**

The analysis in the present and previous chapters revealed key issues that must be addressed by this strategy to ensure the transformation of the Eritrean Leather Value Chain, from predominantly producing and exporting semi processed leather to the production and export of value added products, such as footwear and an assortment of leather goods. The following are the main issues, which have been identified:

- The value chain has the potential; however it is being constrained because of shortage of finance, technology and skilled manpower;
- The footwear and leather goods industry is being undermined because the locally produced leather is limited in quality and variety;
- The location of tanneries around residential areas is possessing a high environmental risk;
- Finished products like footwear and leather goods are not competitive in terms of quality and price, in order to enter the regional and international market; and
- Limited collaboration and networking capacity along the value chain.

In the next chapter the strategic interventions that are aimed at addressing the above identified problems. The implementation of the specific interventions would assist in transforming the Eritrean leather value chain into a formidable regional and global player in the production of quality footwear and leather goods. Consequently this would contribute to GDP, exports and employment creation for the Eritrean Economy.

## **CHAPTER IV: STRATEGY**

### **4.0 Introduction**

This Chapter presents the Strategy's response issues, which were identified in the previous Chapters. The overall objective of the Strategy is to transform the Eritrea's leather value chain from the production and export of raw materials and partly processed products to the production and export of value added products such as finished leather, footwear and leather garments.

### **4.1 Leather Value Chain Strategy**

#### **4.1.1 Vision and Mission**

##### **Vision**

To develop internationally competitive leather industry that contributes to sustainable development through value addition.

The benefits to be realized are stated as:

- Creation of employment
- Full utilization of the renewable resources (hides and skins)
- Earning of foreign currency
- Contribution to rural development

##### **Mission**

To transform the Eritrean Leather Sector into a competitive value chain specializing in the production of value added and quality products through the application of modern and cleaner technologies, collaboration, capacity building, policy guidance and resource mobilization.

The Strategy aims to impact at different levels of the production and commercialization of leather products. Eritrea's future objective is to retain almost all its wet blue and crust that are currently destined for export and use them for domestic processing of leather-finished goods.

The objective is to boost intra-Community trade of finished leather products, shoes and garments.

The Strategy aims to increase the production and export of value added products in order to promote job creation, income and foreign exchange generation and economic growth.

Make interventions in the industry from the point of skin and hides collection to the leather production and marketing stages. Identify the problems that inhibit industrial transformation and growth of the LLPI and intervene in all the three stages of the industry. The overall aim is to create fully vertically integrated leather and leather products Industry.

Upgrade the tanning industry to continuously improve its value addition and improve the quality of its products to supply higher quality inputs to the leather industry, including the footwear sector. There is a shortage of technicians in all the stages of the leather industry. This is inhibiting the development of the industry.

Upgrade the capability of local producers through skills formation and technology adoption. Assist producers to improve their supply management, improve quality and delivery time of their product and in general upgrade their machinery and equipment as well as labor and inventory management.

Shift from semi processed exports towards export of finished leather shoes and leather goods. The leather garment industry should be developed: for converting the country's suitable resources of goat and sheep skins into an additional export range of leather garments, design with special attention to upgrading the finishing level. The footwear sector requires better quality leather, better design.

#### 4.2 Strategy's objectives and Sub-objectives for value chain development

The specific objectives and interventions sections list the proposed mechanisms of addressing the issues outlines at each level of the value chain. The implementation of such interventions would contribute towards the attainment of the main thrust of this strategy, which is to promote the production and export of value added products, such as finished leather, footwear and leather goods.

The Strategy Objectives, in order of priority are:

Objective 1: Strengthen value chain networking, coordination and policy advocacy

Objective 2: Improve access to finance across the value chain

Objective 3: Improve quality

Objective 4: Improve value addition and output through technical training and establishment of clusters.

Objective 5: Improve the effluent treatment system of the tanneries.

**Table 12: The Rationale for the Selected Objectives**

<b>Objectives</b>	<b>Rationale based on Emerging Issues Summarized in Chapter III</b>
Strengthen value chain networking, coordination and policy advocacy	<p>Collaboration is essential in enabling optimization in resource use and dealing with emerging challenges systematically and coherently. In addition it response to the following specific issues:</p> <ul style="list-style-type: none"> <li>• Lack or inadequate horizontal and vertical collaboration among Value Chain Agents, is undermining the optimization of the available resources;</li> <li>• Limited collaboration of value chain agents with external stakeholders such as academia, quality and standards development organizations, financial institutions and development partners among others, is undermining growth of the sector</li> </ul>
Improve access to finance across the value chain	<ul style="list-style-type: none"> <li>• The growth in the production of value added products requires capitalization with regard to tools, equipment and machinery, it is therefore imperative that the</li> </ul>

Objectives	Rationale based on Emerging Issues Summarized in Chapter III
	enterprises are facilities with suitable financial packages. <ul style="list-style-type: none"> <li>Absence of suitable finance is undermining the growth of all enterprises in the sector to acquire suitable technology and skills to boost the production price and quality competitive products.</li> </ul>
Improve quality	The quality of raw materials such hides and skins and also finished leather is undermining the production of quality finished products, which can compete domestically, regionally and globally. Thus it is imperative to work on intervention that would ensure total quality in the entire value chain.
Improve value addition and output through technical training and establishment of clusters.	This rationale of this objective is because value addition is essential in enhancing income earnings, employment creation and poverty alleviation. In addition the quality of footwear and leather goods being produced in Eritrea is being undermined because of the use of poor quality leather and the shortage of suitable tools, equipment and machinery.
Improve the effluent treatment system of the tanneries	The leather value chain has been known to produce hazardous waste, thus it is fundamental that efficient and environmentally sustainable production techniques are promoted, as this is necessary to boost competitiveness, open new market opportunities and save the environment

#### 4.2.1 Strengthen Value Chain Net working and Coordination

In the *Leather and Leather Products Industry*, the main problem is coordination failure. The sector is stuck in a “low-quality trap” in which problems at all levels of the value chain are mutually reinforcing: Inappropriate techniques at the stages of livestock management, tanning, and transport undermine competitiveness in high-value leather product markets, and low quality of final products translates into low prices and under-investment at all stages of the value chain. The sector can thrive only if all these aspects are tackled simultaneously. To correct this problem the Government, together with the Industry Association, will play a pro active role. ELAIA as an umbrella sector association will be strengthened. The Ministry of Trade and Industry together with other partners will give due assistance so as the Association will be strengthened. The Association shall foster trust and coordination among all players by establishing regular stakeholders meetings and by providing a discussion and roundtable forum to agree and negotiate on priorities and required support.

Table 13: Objective 1 - Strengthen Value Chain Networking and Coordination

Objective 1: To Strengthen Value Chain Networking and Coordination			
Sub-objective and Activities	Expected Output	Stakeholders	Budget Estimate
<b>Activities</b>			
Identify and develop an inventory of agents at every segment of the leather value chain;	<ul style="list-style-type: none"> <li>The inventory is disseminated by mid 2015;</li> <li>Inventory continuously updated with time</li> </ul>	<ul style="list-style-type: none"> <li>Government Agencies</li> <li>Sector stake holders</li> <li>Partners (COMESA LLPI, UNIDO, other development partners)</li> </ul>	
Facilitate the formation of associations at every stage of the value chain;	Associations established and legally registered by end of 2015		
Facilitate and coordinate vertical collaboration by strengthening ELAIA, as an Apex body	The Capacity of ELIA is enhanced		
Identify external stakeholders and formulate mechanism of	<ul style="list-style-type: none"> <li>Stakeholders inventory designed and methodologies for working</li> </ul>		

Objective 1: To Strengthen Value Chain Networking and Coordination			
Sub-objective and Activities	Expected Output	Stakeholders	Budget Estimate
working with them.	with them developed and implemented by 2015 • Inventory continuously updated with time		
Facilitate the formation of Clusters among the value chain players	20 Cluster of 100 SMEs each established across Eritrea by 2019		

#### 4.2.2 Improve Access to Finance

In terms of finance, the main problem is lack of access to finance due to collateral requirement, high transaction cost and low credit ceilings. There is a need to make financial needs assessment of the sector to understand the sector's priorities and how to address them. Based on the needs assessment different options of financing could be introduced, for example, tanneries with lower technical capacities could link up with tanneries of higher capacity in an integrated system. The former could supply semi – processed products to the latter. This will have two benefits. First, it helps them overcome the supply shortage and quality deficiency of raw materials as the latter would have a vested interest in ensuring that the former improves its lead time and product quality. Second, over time, the semi-processed leather producers would acquire the necessary skills to add more value to their products, which will eventually allow them to enter the processing industry to capture more of the value created.

Table 14: Objective Two- Improve Access to Finance

Objective 2: To Improve Access to Finance			
Sub-objectives and Activities	Expected Output/Outcome	Stakeholders	Budget Estimate
Conduct sector financial needs assessment for the leather sector, support industries and regulatory institutions in the region	Report completed and disseminated by mid 2015	Line Ministries, FAO, UNIDO, COMESA/LLLPI, ELAIA, Standards Organization and other Stakeholders and Financial Institutions	
Design suitable financial instruments in consultation with national, regional and international (development banks)	Instruments designed and implemented by 2015		
Mobilise funding from national, regional and international finance corporations and also from Government	Amount raised		
Build the capacity of value chain actors including support industries and regulatory authorities on modalities of accessing finance	200 enterprises trained by end of 2018		
Design a system for monitoring and usage of the mobilized resources, to ensure resource optimization	System developed and implemented by 2015		
Develop policies aimed at promoting value addition in the leather value chain	Policies developed and implemented by 2015		

### 4.2.3 Improve Quality

The constraints of the leather industry spreads throughout the value chain, that is, in hides and skins pre- and post- slaughter defects lack of modern technology and skilled personnel in the tanning and leather production industry.

The presence of wide ranging and mutually reinforcing problems at several stages of the leather value chain have kept the production volume and quality low. The tanning stage is the linchpin in the leather value chain. The leather and footwear industries quality depends on the quality of the leather from the tanning industry. The hides and skins problems of poor handling of live animals, poor slaughter techniques and conservation techniques result in low volume and quality of raw materials for the tanning stage, at manufacturing stage lack of modern design skills, modern machinery and equipment have to be addressed and solved these constraints in the strategy period of 2015 – 2019.

**Table 15: Objective Three - Improve Quality**

<b>Objective 3: To Improve Quality</b>			
<b>Sub-objective and Activities</b>	<b>Expected Output/Outcome</b>	<b>Stakeholders</b>	<b>Budget Estimate</b>
Facilitate the development of an efficient Hides and Skins production, preservation and marketing system	<ul style="list-style-type: none"> <li>• Pre, peri and post slaughter defects incidence reduced by 75%;</li> <li>• 75% of hides and skins produced classified as grades (1 and 3)</li> <li>• 100% of hides and skins produced priced according to grade;</li> <li>• 75% of hides and skins produced enters the leather value chain</li> </ul>	<ul style="list-style-type: none"> <li>• Government Agencies</li> <li>• Sector stake holders</li> <li>• Partners (COMESA LLPI, UNIDO, other development partners)</li> </ul>	
Facilitate the production of semi and finished leather, which meet international quality and environmental standards	<ul style="list-style-type: none"> <li>• 100% of hides and skins produced in Eritrea are converted into wet blue by 2018;</li> <li>• 100% of the total hides and skins exported as crust leather by 2022</li> <li>• 100% of total converted into finished leather for domestic and export markets by 2019</li> <li>• 100% tanneries are ISO certified for meeting international quality and environmental standards by 2019</li> </ul>	Line Ministries, COMESA/LLPI, UNIDO, FAO, ELAIA, Standards Board, high learning Institutions (Academia)	

### 4.2.4 Improve value addition and output through technical training and establishment of clusters

It is estimated that by exporting wet blue Member States of COMESA are nine fold of the value that could have been generated within the region if the exported wet blue leather could have been transformed into finished leather. Eritrea is not an exception in this scenario as approximately 85% of its material is exported in wet blue state. In most COMESA countries tanneries export premium material in wet blue states, and only produce finished leather using poor material consequently the end product is poor. Globally the production of quality leather, which meets the demands of the footwear or leather goods industry, is a function of collaboration between tanners and their customers (footwear and leather goods industry). Thus

the later should demand a certain quality from the tanners, and for this works, there is a need for a policy support.

In addition to the above, it fundamental that the demand for finished leather products should be stimulated in Eritrea and one way of achieving that is to ensure that all Government Department procurement of footwear and leather goods is done with local enterprises, rather than inputs. This will raise the demand for leather and thus ensure a sustainable market for finished leather, produced with Eritrea. See the proposed interventions in the Table below.

**Table 16: Objective Four - Improve Value Addition and output through Technical Training and Establishment of Clusters**

<b>Objective 4: To Improve Value Addition and Output through Technical Training and Establishment of Clusters</b>			
<b>Sub-objective and Activities</b>	<b>Expected Output/Outcome</b>	<b>Stakeholders</b>	<b>Budget Estimate</b>
Facilitate collaboration between tanners and producers of footwear and leather goods	<ul style="list-style-type: none"> <li>Finished leather quality standards developed by end of 2015;</li> <li>Finished leather quality standards approved Eritrea Institute of Standard by 2015;</li> <li>20 Tanning middle level technicians trained in the implementation of the quality standards by mid 2016</li> </ul>	Line Ministries, COMESA/LLPI, UNIDO, FAO, ELAIA, Standards Board, high learning Institutions (Academia), Secondary and Primary Schools, Ministry of Education, Ministry of Defense and Home Affairs	
Improve the capacity of the local vocation college	<ul style="list-style-type: none"> <li>Curriculum developed to national diploma in leather technology;</li> <li>The vocational college equipped with modern equipment;</li> <li>Qualified manpower hired to improve the faculty</li> </ul>	Line Ministries, COMESA/LLPI, UNIDO, FAO, ELAIA, Standards Board, high learning Institutions (Academia), Secondary and Primary Schools, Ministry of Education, Ministry of Defense and Home Affairs	
Facilitate technical training in tanning and production of leather goods	<ul style="list-style-type: none"> <li>20 middle management technicians trained in tanning technology by 2017</li> <li>20 middle management technicians trained in total quality improvement in tanning by 2017</li> <li>500 artisans trained in footwear production technology by 2019</li> </ul>	Line Ministries, COMESA/LLPI, UNIDO, FAO, ELAIA, Standards Board, high learning Institutions (Academia), Secondary and Primary Schools, Ministry of Education, Ministry of Defense and Home Affairs	
Facilitate the production of quality footwear and leather goods	<ul style="list-style-type: none"> <li>20 Clusters of 100SMEs each established by 2015;</li> <li>10 Clusters of 25 SMEs facilitated to procure joint by or have access to joint machinery under one roof by 2018;</li> <li>Strategic linkages between Clusters and Support Institutions established;</li> <li>50% of the Cluster are ISO certified for meeting international quality and environmental standards by 2019</li> <li>80% of back -to -school shoes are produced in Eritrea by 2019;</li> <li>100% of Police and Military footwear</li> </ul>	Line Ministries, COMESA/LLPI, UNIDO, FAO, ELAIA, Standards Board, high learning Institutions (Academia), Secondary and Primary Schools, Ministry of Education, Ministry of Defense and Home Affairs	

<b>Objective 4: To Improve Value Addition and Output through Technical Training and Establishment of Clusters</b>			
<b>Sub-objective and Activities</b>	<b>Expected Output/Outcome</b>	<b>Stakeholders</b>	<b>Budget Estimate</b>
	requirements are produced in Eritrea; <ul style="list-style-type: none"> <li>• Export of footwear increased by 25% into the regional and international markets by 2019</li> </ul>		

#### **4.2.5 Improve the effluent treatment system of the tanneries.**

The leather value chain has gained negative publicity across the globe because of the utilization of technologies, which are associated with environmental pollution and damage. This is mainly because of the use of salt and chemicals in the preservation and leather production respectively. However, It is imperative to note that technological advancement has led to the generation of the development of cleaner technologies and also a significant improvement in waste management. Despite progress in this vein, it should be noted that most production systems in developing countries, including Eritrea, have not fully internalized these technologies. The usage of cleaner and environmentally friendly technologies, besides protecting the environment, are also an important marketing tool e.g. eco-labelling etc.. This objective thus focuses in ensuring that all enterprises involved in the leather value chain embraces cleaner and environmentally friendly production technologies. The specific sub-objectives, which would contribute to the attainment of the above objective, are summarized in the Table 29 below:

**Table 17: Objective Five - Improve the Effluent Treatment System of Tanneries**

<b>Objective 5: To Improve the Effluent Treatment System of the Tanneries.</b>			
<b>Sub-Objective and Activities</b>	<b>Expected Output</b>	<b>Stakeholders</b>	<b>Budget Estimate</b>
Assess the tanneries environmental condition	The assessment completed by end of 2015	<ul style="list-style-type: none"> <li>• MTI, Municipality of Asmara, Ministry of land water and environment,</li> <li>• Stakeholders</li> <li>• UNIDO, COMESA LLPI,</li> </ul>	
Undertake a feasibility assessment of relocating the tanneries to a central location	The assessment completed by end of 2015		
Undertake a Cost Benefit Analysis (CBA) of Centralized Effluent plant and relocation vs Stand alone Effluent Plants	CBA completed by mid 2016		
Draw a plan and mobilize resource for implementing the recommendations of the above	The implementation completed by 2019		

#### **4.6 Implementation Methodology**

The Strategy implementation would be coordinated by the Ministry of Trade and Industry in collaboration with the Apex Body of the Leather Industry. It is important to note that that the Public Private Sector collaboration is important in delivering this Strategy. Thus, an Interim Committee of Private Sector, Government and Academia should be established first to drive the

implementation of this Strategy. This Committee should come up with a detailed annual work programme drawn from the key activities highlighted in the Strategy. The monitoring and evaluation process should be supported for continuous data collection and segment association levels and submitted to the Apex Council for reviewing quarterly.