



SUDAN LEATHER VALUE CHAIN STRATEGY

(2015 - 2024)

FEBRUARY 2015

Facilitated by COMESA
Leather and Leather Products Institute
(COMESA/LLPI)



VISION

To be among the top five economic subsectors in Sudan with regard to competitiveness by 2024.

MISSION

To transform the Sudan's Leather Value Chain into a modern and competitive subsector specializing in the production of value added products through the application of modern and cleaner technologies, collaboration, capacity building, policy guidance and resource mobilization

ACKNOWLEDGEMENT

It would be impossible to address and acknowledge all individuals who in one way or another contributed towards the realization of this **Sudan Leather Value Chain Strategy** because of their multitude.

The Common Market for Eastern and Southern Africa-Leather and Leather Products Institute (COMESA/LLPI) would like to express its profound appreciation to the Ministry of Trade of the Government of Sudan and the Ministry of Human Resources Development and Labour of the State of Khartoum for their collaboration and assistance for the successful completion of this strategy.

Indeed this process could not have attained this par excellence had it not been for the eagerness of all key stakeholders, who shared their knowledge and experience during the consultations process.

No fewer thanks go to Mr. Nicholas Mudungwe, Cluster Development Expert and Dr. Tadesse H. Mamo, Training, Consultancy and Extension Expert who tirelessly devoted their time in the preparation of this strategy, and other colleagues of COMESA/LLPI, for administrative and technical support rendered during the assignment period. Dr³ Mwinyikione Mwinyihija, Executive Director of COMESA/LLPI should be appreciated for his leadership, guidance and support in the execution of this assignment.

Needless to say but still, it would remain the responsibility of the COMESA/LLPI for any errors confronted in the development and presentation of this strategy. However, necessary precautionary measures were undertaken to minimize the error through a well-designed consultative process, both at institutional and member state level.

STATEMENT BY THE HONOURABLE MINISTER OF TRADE

Leather is one of the world's most widely traded commodities. Trade in leather and leather products is worth more than US\$ 100 billion per year and it is predicted to grow. The Leather Sector in Sudan holds the greatest potential in Africa, given its huge livestock base. Currently the sector is characterized with the production of low quality hides and skins, low level of value addition and limited support from Stakeholders. The Government of Sudan has taken cognizance of these challenges and is ready to work with the Private Sector, Academia, Local, Regional and International Stakeholders to unleash the value of the value chain.

The Sudanese Government is working to promote the production and export of diversified value added products. The leather sector was identified as a strategic sector, which should be supported as it has the potential of generating jobs and foreign currency. It is against this background that the Ministry of Trade requested COMESA-Leather and Leather Products Institute to assist in the designing of the Leather Value Chain Strategy. This strategy will be a blueprint which will map out the way forward regarding leather sector development. Its implementation will transform the Sudanese Leather Value Chain into a modern and competitive subsector specializing in the production of value added products through the application of modern and cleaner technologies, collaboration, capacity building, policy guidance and resource mobilization.

My Ministry is very excited to finally have the strategy on leather in place and I will make sure that the sector receives the proper attention.

Special gratitude goes to the COMESA/LLPI for their financial support and technical assistance in the development of this important strategy.

Hon. Dr Yahia Salih Mukwar
Minister of Human Development and Labor (Khartoum State)
For/Minister of Trade Sudan Government

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LIST OF ACRONYMS

COMESA:	Common Market for Eastern and Southern Africa
COMESA/LLPI:	Common Market for Eastern and Southern Africa – Leather and Leather Products Institute
FAO:	Food and Agriculture Organization
F.O.B:	Free On Board
GDP:	Gross Domestic Product
HS:	Harmonized System
IS:	Index of Specialization
ITC:	International Trade Centre
KG:	Kilogram
LDC:	Less Developed Countries
LLPI:	Leather and Leather Products Institute
MFN:	Most Favoured Nation
PA:	Per Annum
RCA:	Revealed Comparative Advantage
SMEs:	Small and Medium Enterprises
USD:	United States Dollar
SWOT:	Strengths, Weaknesses, Opportunities and Threats
UNIDO:	United Nation Industry Development Organization

EXECUTIVE SUMMARY

In 2010, Sudan was considered the 17th-fastest-growing economy in the world and this was attributed to oil profits. The secession of South Sudan, which contained over 80 percent of Sudan's oilfields, brought uncertainty to the economy. Although historically agriculture remains the main source of income and employment hiring over 80 percent of Sudanese, and making up a third of the economic sector, oil production drove most of Sudan's post-2000 growth. Given the scenario it is imperative that Sudan should focus on value addition activities especially in Agriculture, where it already has a critical mass. One Sub-sector upon which Sudan has great potential is the development of the leather value chain given its huge animal resource potential.

Through a participatory stakeholder's consultation, it was agreed that the following issues were undermining the performance of the Leather Value Chain in Sudan:

Limited or no collaboration among the Stakeholders – this was impacting negatively on policy implementation, production of quality hides and skins, finished leather, footwear and leather goods. For example Universities are producing graduates, which are not being absorbed by the industry, because there seem to be a mismatch of their skills and what the industry requires.

Absence of viable long term and short term Finance – All Private Sector Stakeholders operating along the value chain are facing acute shortage of finance. The market interest rates are not viable for both short term and long term investments. This has forced the value chain to depend on self financing based on advance from international buyers. Whereas this has kept the industry afloat, it was however undermining its growth as it has given international buyers a string negotiating position, thus pushing down the profit margins due to the local industry. Absence of long term finance has undermined the **technology update** in the industry; consequently most companies were operating with outdated machinery and equipment.

Production of poor quality hides and the *Fashoda* Factor – It is estimated that approximately 70% of cow hides are below grade three because of flaying defects, holes, cuts, gorges etc. The following factors have contributed to the production of low grade hides: poor flaying skills; lack of proper supervision and mechanization of slaughter facilities; absence of hides and skins extension and inspection; limited collaboration between butcheries and slaughter houses to ensure the production of quality hides; uniform price for all grades; disorganized market. This situation has been further worsened by the *Fashoda* factor, because a hide with more than 100 holes or badly preserved has a market, thus the incentive of producing quality hides and skins has now been completely eliminated. Whereas the flaying defects on sheep and goat skins are minimal, it was observed that delayed and under salting was impacting negatively on the quality of the skins. In addition no efforts were being made to clean the hides and skins before salting. Most of the storage facilities for hides and skins in some of the tanneries and collection centres are very dirty.

Lack of Human Capacity: All participants agreed that the number and quality of expertise in Public, Private and Academia was limited to support the growth of this sector. This scenario was undermining the delivery of support to the Private Sector by Government and Academia. Additionally the Private Sector was being forced to hire international experts, which was not sustainable for their operations.

Limited enforcement of policies/regulations and bureaucracy in export documentation: Participants argued that there were a number of policies and regulations aimed at supporting the leather value chain, which were not being implemented to the

detriment of the industry. In addition export documentation process was long and office dealing with the same matter was spread all over Khartoum. It was reported that it takes a minimum of 3 weeks to clear documents.

International Sanctions: Sanctions were impacting on international transactions for both exports and imports. In addition, they were stifling international investments.

Export of raw hides and wet blue and production of poor quality finished leather – The export of raw hides and skins was impacting negatively on tanning capacity utilization. Absence of long term finance was impacting the expansion of tanning capacity to produce quality finished leather. SMEs in the footwear and leather production subsector were being forced to import from Egypt.

Absence of Industrial Parks: Centralized Industrial Parks are supporting the growth of the leather industries globally. These industrial parks are usually equipped with centralized effluent treatment plants, which normally reduce environmental hazards associated with the leather industry and a shared cost.

To address the above issues, this strategy proposes six strategic objectives, which are aimed at addressing the root cause of the identified issues. The six strategic objectives are summarized as follows:

- Strengthen horizontal and vertical collaboration among value chain players and stakeholders;
- Improve accessibility of short-term and long-term finance to enterprises
- Improve the production of quality hides and skins
- Capacitate SMEs/cottage industries for higher end value addition and competitiveness in domestic, regional and international markets
- Promote quality and cleaner and environmentally sustainable production techniques and systems
- Promote the production of value added products
- Improve policies and enhance efficiency and effectiveness in their implementation
- Facilitate the establishment of Leather Industrial Parks with common effluent treatment plants.

The implementation of the above objectives would lead to the attainment of the following Vision: ***“To be among the top five economic subsectors in Sudan with regard to competitiveness by 2024”*** The attainment of the given Vision would be anchored on the implementation of detailed activities, which are logically related with the above objectives.

The future of Sudan Leather Value chain is bright, however the brightness can only be realized through collaboration among the Government, Private Sector and Academia/Specialized Institutions.

CHAPTER I: CONTEXT SETTING

1. Introduction

In 2010, Sudan was considered the 17th-fastest-growing economy in the world and this was attributed to oil profits. The secession of South Sudan, which contained over 80 percent of Sudan's oilfields, brought uncertainty to the economy. Although historically agriculture remains the main source of income and employment hiring over 80 percent of Sudanese, and making up a third of the economic sector, oil production drove most of Sudan's post-2000 growth.

Given the above, it is imperative that Sudan should work to add value to its agro commodities, as a mechanism of boosting economic growth, employment creation and assist in alleviating poverty. Globally, policy-makers are focusing on improving the development of agro-industries with emphasis on promoting effective agro-value chains through promoting the production of value added products. This development paradigm is based on the assumption that the development of agro value chains has a positive impact on employment in both rural and urban areas (off-farm processing and income diversification), offers market access to smallholders, and creates business linkages to small and medium enterprises (SMEs). The emphasis on the leather value chain is based on the same philosophy. In addition, the ever rising global demand for leather, leather goods and footwear has made the value chain receive attention. It is argued that the existence of a demand potential (market) for a product (or commodity) is a *sine qua non* condition and the fundamental factor in selecting and prioritizing a value chain¹.

1.1. Structure of the Economy and Sector Performance

Sudan's Economy is estimated at the GDP size of US\$52 billion, with 31% accounted by agriculture, followed by insurance and banking. The importance of oil has receded since the separation of Sudan from Southern Sudan. The structure of the Sudanese economy and the growth rates of the sectors are summarized in Table 1:

Table 1: Structure and Growth of the Sudanese Economy²

Main Sectors	Share in Real GDP (%)		Growth Rates (%)	
	2008	2010	2008	2010
Agriculture, Forestry, Animal Resources and Fisheries	31.0	31.3	7.7	6.7
Petroleum	7.3	7.5	10.2	(5.1)
Mining and Quarrying	0.2	0.2	8.9	9.3
Processing and Handicraft	10.6	11.0	8.6	8.0
Electricity and Water	2.3	2.5	10.1	9.1
Building and Construction	3.1	3.3	8.3	10.2
Trade, Hotels and Restaurants	7.9	7.9	6.7	6.7
Transport and Communications	9.6	9.8	8.0	7.7
Finance, Insurance, Real Estate	12.0	11.7	7.9	5.5
Community and other Social Services	1.2	1.2	4.9	6.0
Financial Institutions	(1.6)	(1.6)	3.2	6.0
Government Services	14.1	13.0	5.8	1.6
Non-profit Institution Serving Households	0.8	0.8	3.5	1.3
Import Charges	1.5	1.4	7.1	1.6

2010=100

Source: Sudan Central Bank.

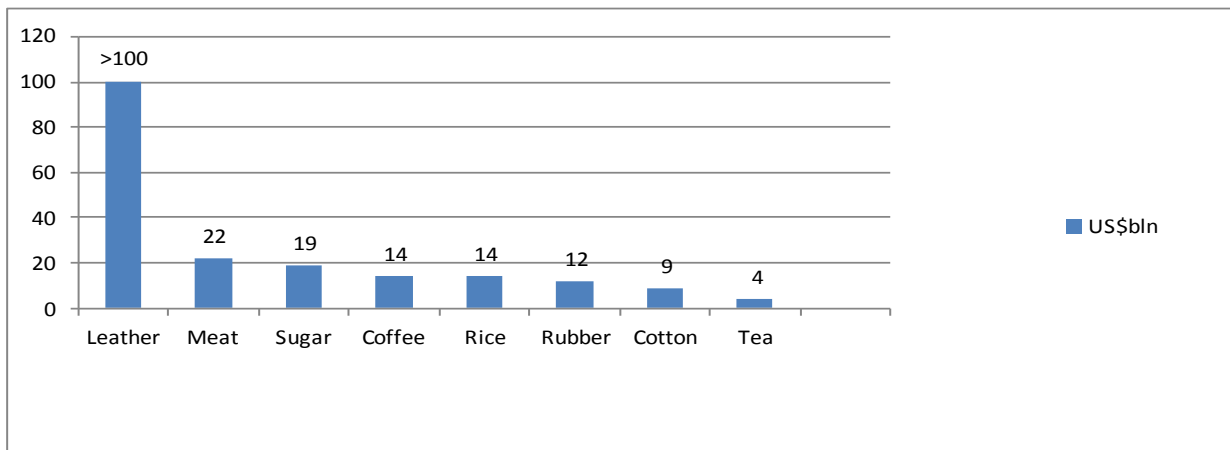
¹ UNIDO (2009): Agro-Value Chain Analysis and Development- The UNIDO Approach

² Note: this was the latest data, which was found at the Bank of Sudan official Website

1.2. Importance of the Leather Value Chain

1.2.1. Global Level

The leather value chain, globally, is estimated at over USD 100 billion.³ 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. 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.



Source: Computed based on COMESA/LLPI reports and FAO 2012

Figure 1: Global Importance of the Leather Value Chain

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 2, below. There is a clear indication that growth in trade rose with the level of value addition, hence, Sudan 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)

1.2.2. COMESA Situation

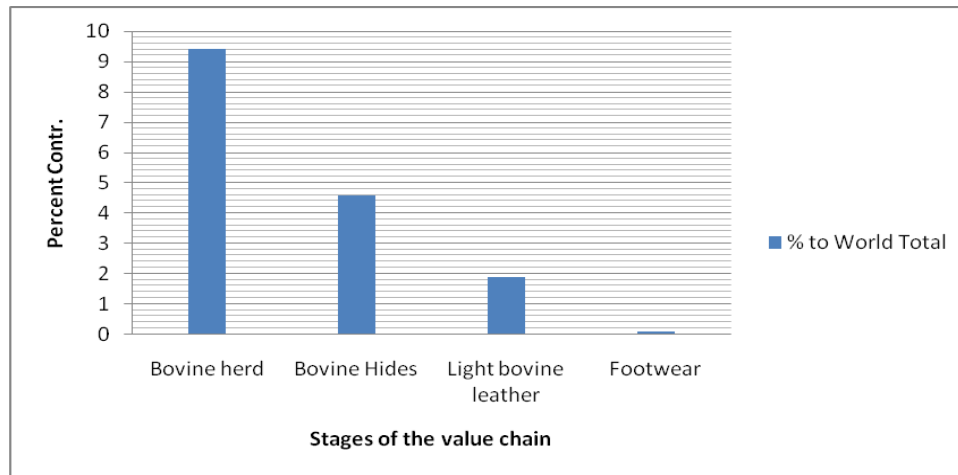
The COMESA Region is made up of 19 African countries, which own approximately 11% and 21% of livestock globally and in Africa respectively; however, its contribution to the global trade is estimated at a paltry 3%. This is attributed mainly to a number of factors ranging from pre⁴-, peri⁵- and post⁶-slaughter challenges and limited or no value addition to

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

⁴ Pre-slaughter defects – any damage caused by different factors like poor management, genetic make-up, disease and nutrition etc., while the animal is still alive

⁵ Peri-slaughter defects: any defect that occur by several reasons, like failure to rest animals for certain periods of time before slaughtering, incomplete bleeding, poor flaying of hides and skins, etc. at the slaughter place.

hides and skins produced in the region. Figure 2 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.



Source: Computed within COMESA/LLPI reports and FAO 2012

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. Sudan and other countries in the region can, therefore, draw practical lessons from Ethiopia.

1.2.3. 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, glue and other accessories consequently creating more indirect jobs. Total output of leather footwear in the COMESA region was estimated⁷ at 80.6 and 92.3 million pairs in 2001 and 2011⁸ 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 translates⁹ 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, this is not being satisfied per annum. This is, therefore, a market opportunity for SMEs to capitalize on without any or limited competition from locally established firms and imports. Figure 3

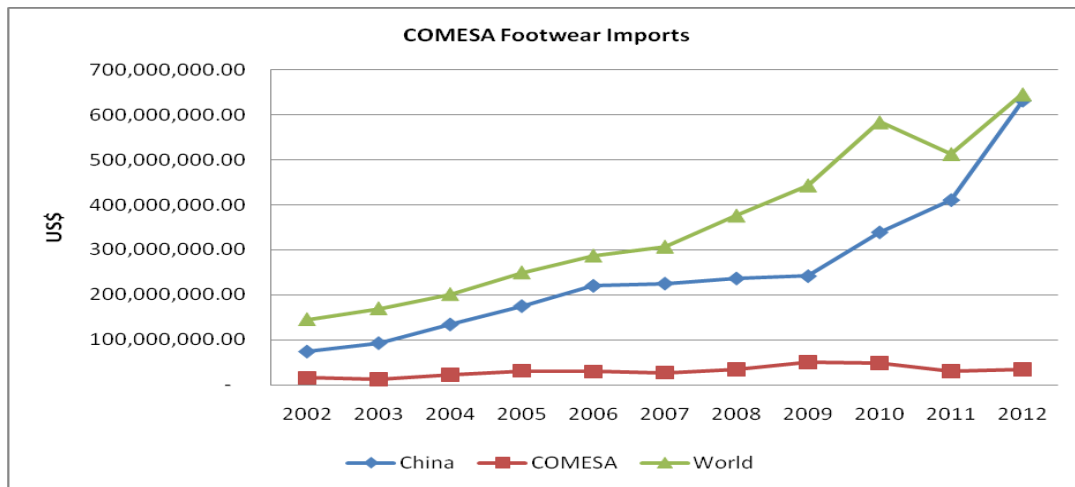
⁶ Post-slaughter defects- groups of defects that take place after the hides/skins are flayed, and include poor curing, poor handling, improper storage and poor tanning process

⁷ FAO Compendium of Statistics

⁸ FAO Compendium of Statistics

⁹ Assuming that the import price of USD10 per pair

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.



Source: COMESA/LLLPI computations from ITC Trade Map data

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

1.3. Conclusion

This Chapter has laid the foundation for generating a comprehensive understanding of the Sudan leather value chain, by looking at the structure of the economy, the relationship of some of the policies, with objectives of the leather value chain¹⁰, global, regional and national situations 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.

Assuming that the import price of USD10 per pair
the Strategy

CHAPTER II: SITUATIONAL ANALYSIS OF THE VALUE CHAIN

2. Introduction

This Chapter presents a situational analysis of the Sudan Leather Value Chain; thus, it lays the basis for identifying issues, gaps and opportunities associated with the value chain. The following important aspects are analyzed using both qualitative and quantitative data: value chain map; potential of the leather value chain; opportunities forgone due to the exporting of raw hides and skins and wet blue; income distribution in the marketing of bovine hides; trade performance; gap analysis and a regional competitive comparative analysis. This analysis builds a foundation for identifying strategic interventions that are important in enhancing the performance of the Sudanese leather value chain.

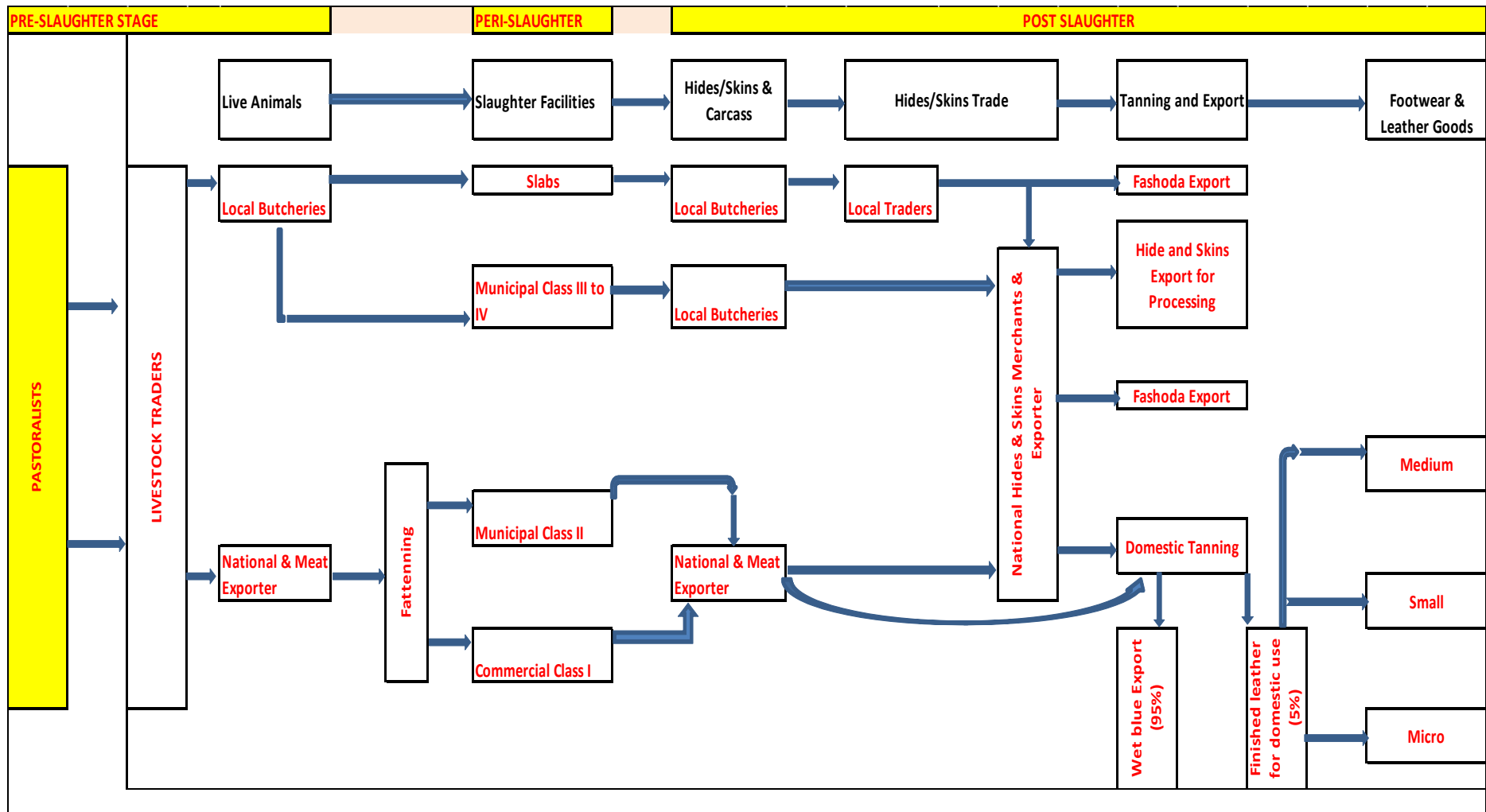
The value chain analysis approach was adopted in the development of this strategy mainly because it allows the revealing of strengths and weaknesses, and helps participating Stakeholders to develop a shared vision of how the chain should perform and to identify collaborative relationships which can lead to improvements in chain performance. On the side of Government (Policy Makers), value chain analysis is a means of identifying corrective measures, investment priorities and development opportunities.

1.1. Industry Structure and Value Chain Map

The value chain is a concept which can be simply described as the entire range of activities required to bring a product from the initial input-supply stage, through various phases of production, to its final market destination. The production stages entail a combination of physical transformation and the participation of various producers and services, and the chain includes the product's disposal after use. As opposed to the traditional exclusive focus on production, the concept stresses the importance of value addition at each stage, thereby treating production as just one of several value-adding components of the chain. This inclusive approach is critical in building an understanding of the challenges, which are currently impacting on the performance of Sudanese leather value chain, despite the immense potential it holds.

Leather value chain displays social and economic relationships, thus, their sustainability is hinged on ensuring that the economic benefits are shared commensurate to the level of contribution each economic agent invests in. It is, therefore, imperative that a deep appreciation of how the income generated in the value chain is shared and developed. It is in this line of thought that Kaplinsky and Morris (2000) asserts that mapping the range of activities in a value chain provides the basis of decomposing the total value chain earnings into the rewards which are earned by different parties in the chain.

One common challenge, which has been observed, is that usually there is a lack of correspondence between the contributions by economic agents and the income which arise from these activities. A mismatch between contributions and rewards may undermine the sustainable performance of a value chain. This matter would be explored further in sub-section 2.2. The Sudan leather value is inclusive of livestock farmers, livestock traders, butcheries, slaughter facilities owners, hides and skins traders and exporters, tanners, artisanal footwear and leather footwear and goods manufacturing. The schematic presentation of the leather value chain in Sudan is illustrated in Figure 4.



Source: COMESA/LLPI, after the National Stakeholders Workshop, Khartoum, Sudan (2014)

Figure 4: Sudan Leather Value Chain

The Leather Value Chain encompasses three stages, which are generically referred to pre-slaughter, peri-slaughter and post-slaughter. As products move successively through the various stages, transactions take place between multiple chain stakeholders, money changes hands, information is exchanged and value is progressively added. It is important to note that the performance of chain is greatly influenced by macroeconomic conditions, policies, laws, standards, regulations and institutional support services (communications, research, innovation, finance, etc.) – which form the chain environment – are also important elements affecting the performance of value chains. The impact of these issues on the performance of the Sudanese leather value chain is discussed in detail in Chapter 3.

Almost 100% of livestock is produced under the Pastoralist System, which is sold to livestock traders, who in turn sell to butcheries. The butcheries either take the animals straight to slaughter houses in majority of cases, however, a small proportion meant for export market is taken for fattening (2 to 3 months) before being taken for slaughter. Price setting is based on negotiation and animals are not weighed. Despite this, normally, the buyers of livestock are quite knowledgeable in this business, and always the agreed price excludes the fifth quarter¹¹.

In the leather value chain, hides and skins assumes economic value, after slaughter, i.e. when they are separated from the carcass. Thus, farmers and the first level of buyers do not derive any economic benefit from hides and skins. The first economic agents to draw an income from hides and skins are the butcheries. It is important to note from the onset that hides and skins are components of the fifth quarter. Thus, when butcheries buy livestock, the prices excluded hides and skins. Given the scenario, the amount of money they receive per unit of hides and skin is equal to net income or profit.

In the operations of a value chain, physical goods flow from left to right, whilst money flows from right to left. It was reported that foreign buyers of raw hides and skins and wet blue pay in advance to hides and skins exporters and tanneries, and the tanneries pay for hides and skins in advance and so on. Thus, hides and skins are paid for before they are produced, which is an indication of stiff competition in the buying and selling of hides and skins.

1.2. Value Chain Actors Governance and Relationships

Gereffi (1994) defines the governance structures of commodity chains as the “authority and power relationships that determine how financial, material, and human resources are allocated and flow within a chain.” This definition is supported by Kaplinsky and Morris (2003), who assert that power asymmetry is central to value chain governance, i.e. there are key actors in the chain who take responsibility for the inter-firm division of labor, and for the capacities of particular participants to upgrade their activities. In the Sudanese case, the authority and power of economic agents in the value chain has contributed to the production of poor quality of raw hides and skins and also to the shortage of finished leather available to SMEs involved in the production of footwear and leather goods. Power dynamics in the leather value chain are mainly influenced by the following factors:

- The power to force other parties to take particular actions, for example, to limit themselves in the production and trade of raw hides/skins and wet blue instead of finished leather and leather products;

Presented in detail in the Chapter dealing with the Strategy
slaughter that contains the main cuts of both prime and processing meat. The dressed carcass makes up about 60% of the live weight of cattle and two-thirds of the live weight of pigs. The remaining live weight is taken up by the hide, blood, bones, intestines/casings, fat and organs, known as the fifth quarter.

- The capacity to be deaf to the demands of others, that is, to refuse to improve the production of quality hides and skins or produce finished leather to support the production of finished products domestically; and
- Different interests.

The governance issues based on the above, which are contributing to the challenges being faced in the Leather Value Chain is summarized in Table 3. Addressing the fundamental issues discussed in the table, requires all value chain actors to work together and to develop a common vision. Joint meetings of all livestock traders, butchereries, slaughter houses, hides and skins merchants, should be convened, with the full participation of all line Ministries of Federal and State levels, supported with the relevant technical institutions and the academia.

Table 3: Relationships and Governance Issues in the Sudan Leather Value Chain

Economic Agent(s)	Governance Issues	Viable Actions
Pastoralists	<ul style="list-style-type: none"> • The nature of the animal husbandry results in scratched hides and skins; • Branding on inappropriate positions, as branding is meant to serve as an identify mark, consequently it should be placed on the most visible section of the animal; • No economic return for ensuring scratch free hides, as the livestock price excluded the fifth quarter 	<ul style="list-style-type: none"> • Scratches caused by the natural environment are difficult to deal with, hence these maybe taken as given; • Promote proper branding; • Economic incentives to deal with the fifth quarter pricing extremely difficult to design and implement
Livestock Trader	<ul style="list-style-type: none"> • Animal transit point, has limited influence on the quality of hides and skins 	<ul style="list-style-type: none"> • Discourage further branding at this stage, alternatively paint could be used as temporary identification mark for livestock in transit
Butcheries/Meat Exporters	<ul style="list-style-type: none"> • Important economic agent in dealing with the peri-slaughter issues, however, has no control in the slaughter house operations; • Buys livestock at a price excluding the fifth quarter, return or no return, from the sale of hides and skins is not important. 	<ul style="list-style-type: none"> • A mechanism should be put in place to pay slaughter house a certain amount based on the quality of hides and skins produced;
Slaughter Houses	<ul style="list-style-type: none"> • Important in ensuring that the hides and skins are free from slaughter defects, however the operator is paid according to the number of animals slaughtered; • No incentives rewarded for producing hides and skins free of slaughter defects, hence operators pays a deaf ear to the demands to produce quality hides and skins • No incentives to invest and maintain equipment to improve the production of quality hides and skins, as this does not influence the slaughter fees. 	<ul style="list-style-type: none"> • Once an incentive system to produce quality hides and skins is put in place, slaughter houses should be penalized for producing poor quality hides and skins; • Slaughtering and flaying should ensure the production of hides and skins, which meet Sudan Hides and Skins Standards; • Hides and Skins Department should employ hides and skins inspectors to enforce the production of quality hides and skins
Butcheries/Meat Exporters	<ul style="list-style-type: none"> • The first owner of hides and skins, at zero cost and the entire price of hides and skins is equal to net profit; • His main line of business is selling meat rather than hides and skins, it's a by-product, hence he pays a deaf ear to the demands to produce quality hides and skins; • The power to use threats not to sale to a trader or tanner who rejects poor quality hides and skins 	<ul style="list-style-type: none"> • Part of the free income received should be used to pay an incentive to slaughter houses to produce quality hides and skins; • Design a code of conduct, which compels that Sudan Hides and Skins standards are included in private contracts between butchereries and hides and skins merchants; • Use of such threats, should be

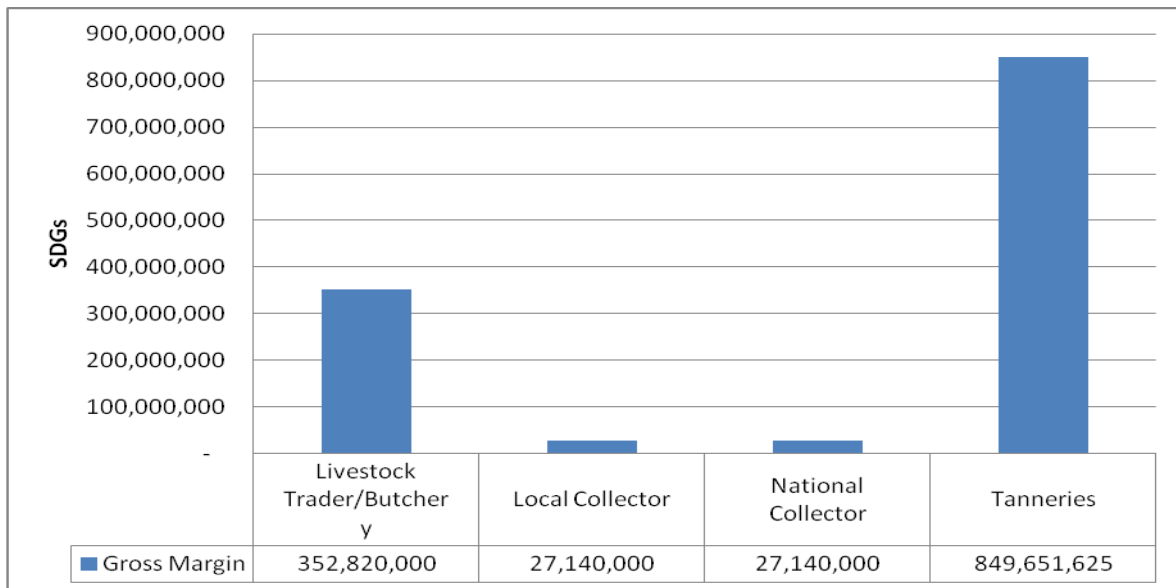
Economic Agent(s)	Governance Issues	Viable Actions
		<ul style="list-style-type: none"> a punishable offence at law; Hides and skins buyers should work together to expose such culprits
Hides and Skins - National Traders/Exporter	<ul style="list-style-type: none"> Main business is buying and selling hides and skins, however the use of threat not to supply whoever rejects poorly preserved hides and skins works to their favour; The growth of the <i>Fashoda</i> business, has given them a market to offload hide and skins, which are poorly preserved 	<ul style="list-style-type: none"> Use of such threats should be a punishable offence at law; Hides and skins buyers should work together to expose such a culprit; Strict measures should be put in place to eliminate the <i>Fashoda</i> business; Hides and Skins Department should employ hides and skins inspectors to enforce the proper preservation of hides and skins
Tannery	<ul style="list-style-type: none"> Receiving end for poor quality hides and skins, which in turn undermines their yield ratio and competitiveness; Trapped in the production and export of wet blue, because of demands from global oligopolies, who make cash advancement, as finance locally is expensive; Starve local SMEs of finished quality leather, as premium material is exported in wet blue form 	<ul style="list-style-type: none"> Hides and Skins Improvement Department should ensure the supply of quality hides and skins; Government should provide soft loans to promote the production of finished quality leather
SMEs involved in Footwear and Leather goods Manufacture	<ul style="list-style-type: none"> The size of SME orders are very small, to meet economic order quantities to justify production by tanneries 	<ul style="list-style-type: none"> The Ministry of Industry should work to develop SMEs clusters to promote joint procurement; Facilitate the establishment of Trading Houses, which can procure in bulk and in turn sell to SMEs in small quantities.

1.3. Income Distribution in Hides and Skins Marketing

The mapping of the range of activities in the chain provides an opportunity to disaggregate total value chain earnings into the rewards which are received by different parties in the chain. The relationship between income distribution and the level of contribution by each economic agent along the value chain is very important, as it contributes significantly on sustaining the efficiency and effectiveness of the value chain.

Unfair distribution of income, which does not reward economic agents commensurate to their contribution, may undermine the effectiveness and efficiency in the performance of the chain. Economic agents who are underpaid may offer a compromised service, which they deem to be commensurate to the income they are receiving. For example, hides and skins collectors may economize on the use of salt, thus downgrading the quality of hides and skins; low collection levels of hides and skins may be recorded, as hides produced far away from the collection centre may go uncollected, once the price paid does not compensate for the increased transport cost.

Observation of hides and skins, which were being offloaded and stacked in various collection points, showed that poor preservation was common in Sudan; this could be attributed to lack of skills and awareness. A simulation of the amount of gross margin earned at each level of the value chain in Sudan, from the moment the hide is harvested from the carcass, is illustrated in Figure 5.



Source: COMESA/LLPI, based on data generated during Stakeholders meetings and Stakeholders Workshop

Figure 5: Gross Margin Distribution

The computation illustrated above is based on the assumption that all bovine hides and skins collected in Sudan are tanned before being exported; however; this is not the case. Nevertheless, it demonstrates, in terms of proportion, the gross margins being received by economic agents at each segment of the leather value chain. The earnings attributed to Tanners, should be adjusted to 60%, given that approximately 40% of the hides and skins are exported in raw state, which translates to a gross margin of SDGs 509 million per annum.

Livestock traders/butchery owners¹², command the second highest gross margin earnings, because when they purchase livestock, the price excludes the fifth quarter¹³; thus they do not pay for it. Once the animal is flayed they sell the hides and skins in green state, before incurring any preservation cost. Past projects have concentrated on supporting slaughterhouse owners to work on the reduction of flay cuts. The results have been disappointing, as the intervention focused on the wrong agent (slaughter house owner), who does not directly benefit from the marketing of the hides and skins in instances, when hides and skins are not used as slaughter fees. The hides and skins are owned by the livestock trader, who in real terms only pays a farmer 60% of the live weight, and gets the hide, blood, bones, intestines/casings, fat and organs for free. Hence there is low economic incentive for the livestock trader to invest in ensuring that the quality of hides and skins is improved, as any amount he receives is a bonus.

In the final analysis, livestock traders/butcheries are the major beneficiaries, because their gross margin equates to net profit; as they receive the hide/skin for free and they are usually not involved in the preservation of hides and skins, as they sell them immediately after production. This, therefore, entails that future interventions aimed at addressing peri-slaughter defects must target livestock traders, as these are the economic agents who are earning the highest income that is not commensurate with their input.

¹² These are technically the same people as observed in the field, they buy livestock and take them to slaughter places for slaughtering and preparation then sell both the meat and the hides.

¹³ The dressed carcass is the four quarters of the animal after slaughter that contains the main cuts of both prime and processing meat. The dressed carcass makes up about 60% of the live weight of cattle and two-thirds of the live weight of pigs. The remaining live weight is taken up by the hide, blood, bones, intestines/casings, fat and organs, known as the fifth quarter.

As discussed in section 2.3, part of the earnings being received by butcheries should be used to incentivize slaughter houses to produce quality hides and skins. As argued by Crosby (1979), quality improvement is free, as it pays for itself.

1.4. Estimated Local Demand of Finished Leather

The potential of the level of demand of finished leather was estimated on the basis of the Libya Market; which is located in Omdurman, Khartoum. Among other SMEs operating in Libya Market there are approximately 250 SMEs involved in the production of footwear, especially the traditional Sudanese Maakoob. On average each SME has 5 artisans, producing an average of five pairs per person. This translates to 25 pairs per SME per day, and 1,250,000 pairs per annum for 250 SMEs, with a leather consumption estimated at 3,125,000 square feet. Currently the SMEs depend on imported leather from Egypt and badly vegetable tanned leather from local artisan tanners. Thus as discussed in 2.2, local tanners have an opportunity to increase their production of finished leather if strategic linkages can be made with Libya market with the support of line Ministries. This would lead to reduction in import demand, which is estimated at SDG42 million, based on landing cost of SDG13.5 per square feet from Egypt. The characterization of the Libya market is summarized in Figure 6. It is important to note is that beyond the Libya market there are several SMEs operating across Khartoum, which are currently importing leather from Egypt, at the expense of the local material.

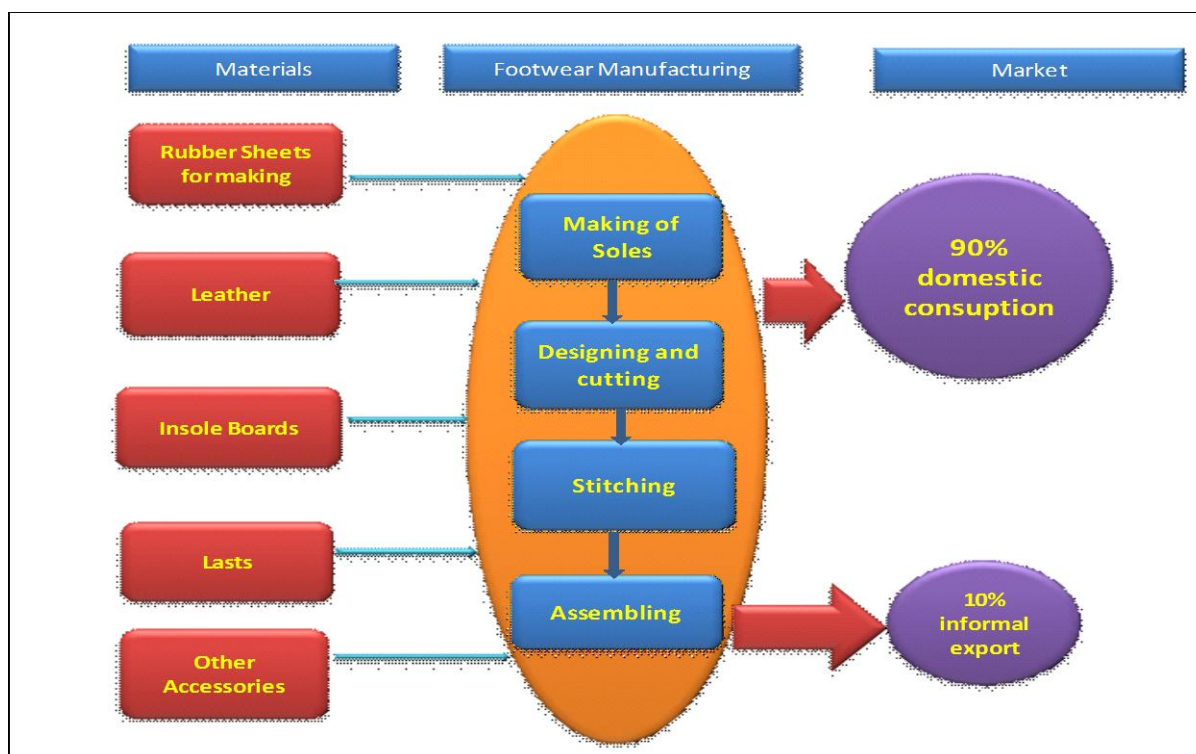


Figure 6: Characterization of the Libya Market

1.5. The Potential of the Sudan Leather Value Chain

In developing countries, a significant proportion of national funds are used to support agricultural production inputs – primarily seeds, fertilizers and irrigation systems. Traditionally, little attention has been paid to the value chains by which agricultural products reach final consumers and to the intrinsic potential of such chains to generate value added and employment opportunities. While high-income countries add nearly US\$185 of value by processing one tonne of agricultural products, developing countries add only approximately

US\$ 40. Furthermore, while 98 percent of agricultural production in high-income countries undergoes industrial processing, barely 38 percent is processed in developing countries¹⁴.

It is imperative to note that the export of raw hides/skins, wet blue and crust entails forgone opportunities with regard to value addition, which could have been attained in Sudan. 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 Sudan, had the large proportion hides and skins been transformed into finished leather or leather goods. 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 Sudan; this renders more than 65-70% 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 Sudan was incurring per annum due to pre, peri and post slaughter defects and the export of wet blue and raw hides and skins. Based on the hides and skins production of 2012, the Sudan leather value chain has the potential of reaching a minimum direct value of USD 1.5 billion 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 Mwinyihija¹⁵ (2014), which found out that 48% and 42% of defects are attributed to pre, 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. Cumulative potential losses due to pre, peri and post slaughter defects were estimated at US\$ 42,5 million in Sudan.

$$= \sum G_1 P_1 - \sum (aTQP_1 + bTQP_2 + cTQP_3 + dTQP_4 + eTQP_5 + fTQP_6) \quad (\text{Equation 1})$$

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 and Sheep/Goats Hides and Skins

Type of Hides/Skins	Potential Earnings Assuming all Hides are First Grade	Potential Earnings after Discounting Quality	Loss	Pre-slaughter losses	Peri and post slaughter losses
Apportionment Ratio				0.48	0.42
Bovine	43,290,000	27,753,700	15,536,300	7,457,424	6,525,246
Goat and Sheep	78,008,000	51,032,600	26,975,400	12,948,192	11,329,668
Total Estimate	121,298,000	78,786,300	42,511,700	20,405,616	17,854,914

Source: Computations based on FAO 2012 data.

¹⁴ UNIDO (2009): Agro-Value Chain Analysis and Development- The UNIDO Approach

¹⁵ Mwinyihija, M. (2014). A prognosis of the leather sector in Sudan; The upheavals and antidotes associated with value creation. *Management* Vol.4 (1),pp. 21-29.

The losses, which are incurred due to non-value addition, are illustrated in Table 5 below. The value addition threshold that is expected per stage, is shown in the last column of Table 5. The cumulative loss is estimated at USD 1.4 billion, 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 Table 6 is taken into account the total loss is estimated at USD 1,425 billion 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	121,370,000	3,724,449	117,645,551	1
Wet Blue	242,740,000	31,371,250	211,368,750	2
Crust	364,110,000	-	364,110,000	3
Finished Leather	485,480,000	-	485,480,000	4
Finished Products	1,456,440,000		1,456,440,000	12
Cumulative Loss			1,421,344,301	

Source: Computations based on FAO data.

1.6. The Tanning Subsector

Leather tanning is the process of converting raw hides and skins into leather. Hides and skins have the ability to absorb tannins and other chemical substances that prevent them from decaying, make them resistant to wetting, and maintain their reparability, suppleness and durability. The upper surface of hides and skins contains the hair and oil glands and is known as the grain side. The flesh side of the hide or skin is much thicker and softer. The three types of hides and skins most often used in leather manufacture are obtained from cattle, sheep, and goats.

The main output of the Sudanese tanning industry is wet blue and currently it is estimated that there are approximately 23 tanneries spread across; with the highest concentration in Khartoum State. Table 6 summarizes the key features of Sudan's tanning industry.

Table 6: Summary of the Tanning Sub-sector in Sudan

Variable	Indicator	Comment
Number of Tanneries	23	
Installed Tanning Capacity	<ul style="list-style-type: none"> 25,000,000 sheep and goat skins; 	<ul style="list-style-type: none"> The tanning capacity is almost equal to the estimated production volume of hides and skins.
	<ul style="list-style-type: none"> 1,400,000 Bovine Hides 	<ul style="list-style-type: none"> With an estimated annual production of bovine hides and skins estimated at 2,400,000, it shows that the installed capacity is not adequate to process all the hides, assuming they are made in available in good quality.
Utilized tanning capacity	<ul style="list-style-type: none"> Skins – 94% 	<ul style="list-style-type: none"> It was reported that the quality of goats and sheep skins is generally of good quality with low frequency of peri slaughter defects. In addition goats and sheep skins are not demanded in West Africa for human consumption
	<ul style="list-style-type: none"> Hides – 6% 	<p>Capacity utilization of 6% is very low, this implies that the production lines meant for bovine hides and skins are grossly underutilized. The low capability utilization scenario is attributed to the following:</p> <ul style="list-style-type: none"> This is mainly attributed to the export of raw hides and skins to West Africa for human consumption and also production of poor quality hides and skins. It is estimated that this market is consuming 70% of the bovine hides

Variable	Indicator	Comment
		and skins produced in Sudan. This is also through illegal channels, hence the Government is also losing revenue as export tax is not collected on smuggled hides and skins. 60% of hides and skins are in grades 4 to 5.

1.6.1. The Wet Blue Production Cost Structure and the Implication of Hides and Skins Quality

In the production of wet blue, raw hides and skins commands 85%, with the balance shared among chemicals, water, electricity and labour. This scenario highlights the importance of raw hides and skins in the production equation of leather. Thus, rapid hides and skins prices fluctuation and quality have a serious bearing on the profitability and competitiveness in the production of wet blue. A steep increase or decrease in the prices of hides and skins would impact negatively or positively on the cost of production and consequently on the gross margin¹⁶ of tanning operations.

According to FAO (2009)¹⁷, a gross margin of 25-35% and greater than 45% is considered normal and robust respectively. Sudan's tanning sector is earning an average of 33% gross margin, reflecting that it is earning normal profit. It is however important the Sudanese F.O.B price is below the average of US\$60,000 reported in other countries in the region. This variation could be attributed to the poor quality of raw hides and skins currently being produced in Sudan. Table 7 below illustrates the costs breakdown in the production of hides and skins equivalent to 58,000-60,000sqft.

Table 7: Tanning Production Function

Inputs into Wet blue Production (Bovine)	% Contribution to Final product	USD		
		Bovine Hides	Sheep Skins	Goats Skins
Raw hides and skins	70	21,000.00	46,200.00	23,100.00
Chemicals	20	6,000.00	13,200.00	6,600.00
Water & electricity	3	900.00	1,980.00	990.00
Labour	7	2,1000.00	4,620.00	2,310.00
Total Ex Factory Cost for Wet Blue Container	100	30,000.00	66,000.00	33,000.00
FOB price		40,000.00	?	?
Gross Margin	(33%)	28,000.00	?	?

Source: Stakeholders and Experts consultations with COMESA/LLPI (still waiting for Figures from Sudan)

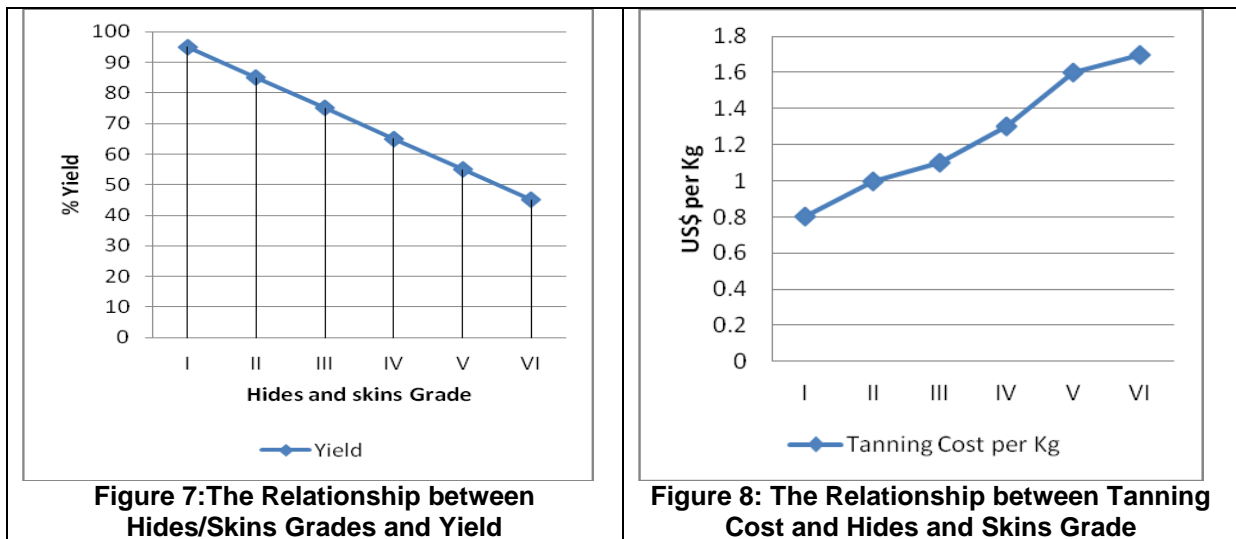
Stakeholders believe that a large proportion of hides and skins, which emanate from slaughter slabs and backyards were traded at uniform price irrespective of grade category. This situation discourages quality improvement among the primary producers and collectors of hides and skins. This acts as a disincentive and, given the scenario that hides and skins collectors would under-salt, as a measure of protecting their profit margin, push the quality of hides and skins down. Consequently, this would raise the tanning production cost upwards and thereby squeeze profit margins, as they process poor quality hides and skins.

Figures 7 and 8 illustrate two important points that the cost of tanning increases as the quality of hides and skins deteriorates. Secondly, there is also a positive correlation between yield and hides and skins quality; as the quality declines the yield also declines. The cost of tanning a kilogram of hides and skins rises from USD0.8 to USD1.6, from first to the fifth grade respectively; consequently the yield declines from 95% to 55% respectively. This pushes up the cost of tanning and consequently reduces the competitiveness of the industry. Therefore, it is imperative that appropriate measures to promote 'quality based on grades' pricing system and quality improvement (extension services) programs are put in place, as a

¹⁶ **Gross margin** is the difference between revenue and cost before accounting for certain other costs. Generally, it is calculated as the selling price of an item, less the cost of goods sold (production or acquisition costs, essentially).

¹⁷ FAO Agribusiness Handbook (2009)

measure of boosting the Sudan tanning industry in aspects related to profitability and competitiveness.



It is estimated that 60% of hides and skins produced in Sudan are in grades three to six; this implies that the yield range is 45-75%, and the cost of production per kilogram is in the range USD 1.2 to 1.7. Lower yield implies lost resources, processing poor quality hides and skins, whose return in terms of quantity output and monetary return is low. This scenario needs to be reversed as it raises the cost of production, consequently undermining the competitiveness of the value chain. It is, therefore, imperative that measures should be put in place to reverse this scenario.

1.7. Gap Analysis of the Sudan Leather Value Chain

Gap analysis is synonymous with benchmarking; it is an attempt to take the focus outside the Sudan Leather Value Chain, business size category and even outside the country. It leads to the identification of generic insights into the value chain's key drivers of success. The Gap analysis was taken to analyze the Sudan Leather Value Chain vs. Turkey Leather Value Chain. The use of this tool is important in the sense that it assists in building awareness among the Sudan Leather Value Chain stakeholders about the fundamental factors for building competitiveness. Limited knowledge about factors that is driving success of other similar enterprise within or outside the country undermines innovativeness. The Gap analysis findings are presented in Table 8.

Table 8: Gap Analysis of the Sudan Leather Value Chain

Critical Success Factors	Importance	Sudan	Matured Footwear Supply chain	GAP	Comment
Livestock Base	Has a bearing on the potential of hides and skins availability	5	2.5	+2.55	Sudan's livestock size is far greater than that of Turkey, approximately fold, however Turkey has a better livestock management system than Sudan. There is a high frequency of pre slaughter defects on Sudanese hides and skins than those from Turkey.
Off-take Rate	The most important determinant of hides and skins production	1.5	5	-3.5	The off-take rate in Sudan is still very low because a number of pastoralist farmers consider livestock as status of wealth rather than as a source of revenue. Thus, on average, livestock is disposed usually to deal with a family crisis or culling during drought period. In addition to this the meat consumption per capita is still very low, given its economic size, vs that of Turkey where meat consumption is very high. In recent years the off take rates of Sudan has been raised because of increasing exports of live animals to the Gulf States. However the increased exports of live animals is detrimental to the production of hides and skins. It is imperative that Sudan should invest in modern slaughterhouses in order to stem the export of live animals, as it is undermining the growth in the supply of hides and skins feed stock into the leather value chain.
Animal Husbandry and Extension Service	The state of animal husbandry and extension services has a bearing on the frequency of pre slaughter defects.	1	5	-4	Sudan's extension support is very weak, mainly because of resources constraints ranging from finance, transport and manpower. Turkey has very high standard facilities and support in animal husbandry and extension service.
Peri-Slaughter	The skills and handling practices contribute to the absence or presence of cuts, gauges etc. on the hides and skins produced.	0	5	-5	<p>The high frequency of pre-slaughter defects is mainly attributed to the fact that most of the slaughter is done on contract, thus, the more livestock slaughtered the higher the revenue of slaughter houses owners and the earnings of flayers. In addition, at the point of livestock purchase from farmers, traders do not pay for the fifth quarter, however, they sell it after slaughter. Thus, this is free income to livestock traders, and because their investment in its generation is near zero, not much attention is paid to the hide during flaying.</p> <p>Most slaughter facilities in Sudan lack the requisite facilities such as electricity, trained personnel, proper flaying equipment and tools. The situation is the opposite in Turkey, as most of the slaughter facilities are adequately equipped.</p> <p>In addition the <i>Fashoda</i> issues, has encouraged the production of poor quality hides and skins. <i>Fashoda</i> has become a term used to define exports of hide and skins, which are exported to West Africa for human consumption. The <i>Fashoda</i> market does not discriminate whether a hide has a million cuts or gorges.</p>
Post-Slaughter	The level of preservation techniques, handling and transportation are important in ensuring that hides	0.5	5	-4.5	This is a major challenge especially to hides and skins produced in the countryside and also in markets. Most of the hides produced are dirty, under-salted, and hair

Critical Success Factors	Importance	Sudan	Matured Footwear Supply chain	GAP	Comment
	and skins are delivered the tannery in the desired state.				<p>slip was commonly observed on hides and skins which were stored in a number of tanneries and collection centres visited during the mission. On the other hand in Turkey hides and skins are exported direct to tanneries when they are fresh chilled in most of the cases, hence free from post slaughter defects, such as hair slip etc.</p> <p>Whereas Sudan has developed standards for hides and skins production, preservation and grading there is no indication on the ground that these standards are being applied. In Turkey hides and skins are traded and priced by grades. The application of a uniform price irrespective of the quality of hides and skins trade is another factor contributing to the continued production of poor quality hides and skins.</p>
Number of Tanneries, which Produce Finished leather	This reflects the absorption capacity of the material produced	1	5	-4	Turkey has approximately 700 tanneries registered against Sudan's 23. Tanneries in Turkey are well equipped with modern technologies to ensure the production of quality finished leather, which are destined to fashion cities of the world such as New York, Milan and Tokyo just to mention a few. On the other hand Sudanese are stuck in the production of wet blue, which is exported to China and Europe for further processing.
Finished Leather	It contributes 50% in terms of value to footwear with leather uppers, thus this is the main input.	0	5	-5	Turkey produces high quality finished leather, whereas Sudan produces a small proportion of finished leather mainly for the domestic market. Some large and medium enterprises in Sudan consider the quality produced in Sudan to be very poor, consequently they are forced to import finished leather from Egypt and Ethiopia. Micro enterprises involved in the production of footwear in the "Libya market", also pointed out that the quality of finished leather from local tanneries was far below standard, as such they are forced to import from Egypt. They also reported that the landing cost of finished leather from Egypt was below the prices being offered by the local tanneries.
Effluent Treatment	Very important for entry into modern and lucrative markets, which are environmental conscious?	0.5	5	-4.5	Effluent treatment in most tanneries in Turkey is centralized, thus several tanneries, use a common effluent plant, which is managed by an independent company. Tanners in Bursa Turkey reported that their cost of effluent treatment went down by 30%, when they were connected to a common effluent plant. In Sudan tanneries have independent effluent treatment plants and most of the effluent plants may not be meeting the minimum domestic and international standards. The absence of centralized effluent treatment plants in Sudan undermines competitiveness and also makes it difficult to check whether tanneries are not using some harmful chemicals, which are not accepted in some markets. The centralization of Effluent Treatment Plants in Turkey made all tanneries to meet the tough European standards.
Factory Layout and Cleanness	Important in enhancing flow of work, improving efficiency and productivity	0	5	-5	The majority of tanneries in Sudan, reflects poor factory layout and they are very dirty, with pieces of metals, hides and other unnecessary garbage spread all over

Critical Success Factors	Importance	Sudan	Matured Footwear Supply chain	GAP	Comment
					the factory. This is the opposite in Turkey, where machinery are neatly laid and there is no unnecessary garbage in the factory.
Industrial Parks	Important for enhancing synergies and reducing the cost of effluent treatment	0	5	-5	In Turkey most tanneries operate in industrial Parks, which is the opposite of the situation in Sudan. It is imperative to point out that Stakeholders in Sudan are ready to move into a centralized industrial park, once such a facility with requisite services is provided by Government.
Supply of Chemicals	Promotes “Just in Time Production”, which eliminates the costs associated in keeping large stocks of chemicals	0	5	-5	Presence of global suppliers of chemicals in Turkey, is the opposite of the situation in Sudan. Most tanneries in Sudan import chemicals from Europe, China and India. The situation has resulted in some tanneries using substandard chemicals, which creates environmental hazards and at the same time undermines the export of wet blue to European markets.
Testing Laboratories	Most of these laboratories are globally certified. The presence of globally certified laboratories is an important market tool, which assists in building market confidence and consequently the earning of premium prices	1	5	-4	In Turkey, sophisticated Testing laboratories are provided by Government, Universities and the Private Sector. In Sudan, the few laboratories seems to be completely divorced from the industry. Companies do self certification, which is lowly rated globally than third party certification.
Collaboration with Academia and R & D	This is important in improving quality, efficiency and the development of new products. Furthermore it assists in ensuring that Universities produce graduates with the requisite skills.	0.5	5	4.5	Collaboration in between Industries and Universities in Turkey is very high. Joint researches and internship ensures the continuous improvement in quality and also the production of graduates, which adds value to the industry. This is the opposite of the situation obtaining in Sudan.
Collaboration with Government	Government is important in instituting policies that are aimed at improving the business environment. Policy enforcement is also of paramount importance. Secondly, under the Triple Helix concept, Government is an important source of finance, especially for research and construction of Industrial Parks and also soft loans for long term capital	1	5	-4	Turkish Government has funded research and also the construction of industrial parks serviced with central effluent treatment plants.
Relationship with Government	Government support with regard to policy, supply and demand aspects is fundamental for industrialization. Most countries have grown at the back of Government policy, financial and procurement support.	1	5	-4	Limited relationship with Government and Academia.
Access to Finance	Availability of finance with terms, which boosts industrial viability, is of paramount importance	0	5	-5	This is one of the major constraints in the industry as finance is available at minimum lending rates of 22% plus collateral. The cost of finance is very low and Government has played a significant role in supporting the construction of industrial parks and export economic zones, associated with huge incentives.
Equipment and Machinery	Improved productivity and quality of products is greatly influenced by the availability of adequate and	0.5	5	-4.5	Most SMEs are using basic, old and rudimentary machinery, especially in the footwear making industry. In Turkey most enterprises are equipped with modern

Critical Success Factors	Importance	Sudan	Matured Footwear Supply chain	GAP	Comment
	suitable machinery and equipment				equipment.
Labour Productivity	High labour productivity is very important, given the intensity in the use of labour in the footwear supply chain.	1.5	5	-3.5	3 to 5 pairs per person per day, below productivity of 10 plus pairs per day in Turkey.
Skilled Manpower	Footwear production is labour intensive, hence, there is a need of highly skilled labour force to ensure the production of quality footwear	2	5	-3	Limited training; most SMEs have received short training courses from UNIDO and COMESA/LLPI
Industrial Collaboration	Industrial association is important in building industrial synergies and also engaging with policy makers. Robust organization improves the enactment of supportive policies and also financial and infrastructural support from Government	2	5	-3	The industry in Sudan is operational association, whereas in Turkey there are numerous associations, which are well staffed with experts, whose agenda is to obtain concessions of the industry, consequently improving its bottom line. The other challenge in Sudan is the limited interface between other association member with Slaughter Houses and Butcheries and Meat Exporters
Total		19	97.5	-64.5	

Source: Stakeholders Consultations by COMESA/LLPI

The Sudan leather value chain performance lags behind that of Turkey by -64.5 points, which translates to 24percent. This is a clear indication that for the Sudan leather value chain to become globally competitive there is a lot of work that needs to be done to assist in closing the identified gaps. Thus strategic interventions should be designed and implemented to deal with the identified gaps.

1.8. Trade Analysis

It was not possible to undertake a detailed trade analysis for Sudan because of data unavailability. Imports and exports data for Chapters 41, 42 and 64 of the Harmonized System (HS), which are associated with articles of leather are blank in Trade Map and Comtrade. This is an area, which Sudan must work on to ensure data availability.

1.8.1. Trade Policy on Hides and Skins

The trade policies on hides and skins export currently obtained in selected regional countries, and the actual impact, which have been registered in the past years are summarized in Table 9. The export restriction policies based on export tax has generally contributed to the growth of the tanning sector in Ethiopia, Kenya and Uganda, as reflected by the number of new tanneries which were established and also the export values. Sudan currently operates with a 15% export tax; however, stakeholders raised the concern that its implementation was not effective and smuggling of hides and skins is rampant. See summary of current policies in the region.

Table 9: Summary of Hides and Skins Export Restrictions

Country	Nature of Policy	Recorded Impact	General Comment
Ethiopia	Punitive export tax on raw hides and skins up to crust leather.	The sector has grown significantly, with approximately 28 tanneries operating and a sizeable number of footwear making factories and thousands of SMEs	The implementation of such a policy should be supported by competent institutions and complimented with other support measures. In some of the countries, which have implemented this kind of policy there has been reports of hides and skins being exported through second party countries (smuggling)
Kenya	Export tax on raw hides and skins	The industry is showing great recovery from the effects of Economic Structural Adjustment, and exports from the sector has grown from USD10.6 million in 2001 to USD166 million in 2012, dominated by wet blue	
Uganda	Export tax on raw hides and skins	This has seen the number of tanneries rising from one to seven, and export value from USD25 in 2003 million to USD63 million in 2013	
Sudan	Export Tax	It has a 15% export tax on the export of raw hides and skins, however it was reported that the enforcement of the policy is very weak.	

1.9. Conclusion

This Chapter has discussed and demonstrated quantitatively the issues pertaining to losses being incurred because of exporting raw hides and skins, wet-blue, and also the potential export earning if value addition is to be achieved in Sudan.. The next Chapter summarizes issues, which were generated during a Stakeholders Participatory Workshop, which was facilitated by COMESA/LLPI, Khartoum, Sudan.

CHAPTER III: PARTICIPATORY ANALYSIS OF THE VALUE CHAIN

2. Introduction

Broader participation and engagement of key stakeholders, public transparency, and institutional accountability have gained greater importance globally. Lessons learnt are extremely helpful in facilitating the successful implementation of new strategies, policies and business processes. According to the Asian Development Bank (1996) experiences have demonstrated that policies tend to be more effective when there is stakeholder ownership of initiatives and new programs and projects that reflect their needs and views. Participating in formulating the fundamental goals as well as in planning and carrying out an activity empowers stakeholders and fosters a sense of ownership. These facilitate effective project implementation, conscientious monitoring of activities, and sustainable outcomes.

Taking the above into cognizance, the Draft Leather Value Chain Strategy for Sudan was designed through a participatory process. It involved site visits in selected parts of the country, one-to-one meetings, followed by Participatory Stakeholders Workshop, which was held in Khartoum, Sudan. The Workshop drew participants from the various segments of the value chain, from city and peri-urban areas of Khartoum and, other districts of Sudan. The stakeholders represented Government, Private Sector and Civil Society. The Workshop assisted in generating, moderating, collating and prioritizing of important issues.

This Strategy was designed by blending both qualitative and quantitative data that was generated from primary and secondary sources. The primary sources included one-to-one meetings with SMEs during the baseline survey of SMEs; this was followed with meetings and site visits to slaughter houses and hides and skins traders, tanneries, leather goods and footwear manufacturers.

2.1. Distribution of Workshop Participants

Stakeholders are people, groups or institutions that may be affected by, can significantly influence or are important to the achievement of the stated purpose of a project or strategy. They include Government Officials, Civil Society, and the Private Sector at national, intermediate and local levels. Given the above definition and importance of Stakeholders, the Workshop drew participants from Public and Private Sectors and Civil Society/Academia. This is also in line with the COMESA/LLPI thrust of employing the Triple Helix approach in improving the performance of the leather value chain in the COMESA region, as was approved in a Stakeholders Meeting, which was held in July 2014, in Harare, Zimbabwe. In addition, the drawing of Stakeholders from across the value chain, and the country, was aimed at generating a national and balanced view of the issues currently impacting the performance of the leather value chain. Table 10 shows summary of participants.

Table 10: Distribution of Workshop Participants

Sector	Number of Participants	Percentage Contribution (%)
Pastoralists	2	4.5
Hides and Skins Collectors	2	4.5
Tanneries	4	9.1
Footwear and leather Goods Makers	17	38.6
Government Ministries	3	6.8
Media	4	9.1
Semi-Government Technical Institutions	6	13.6
Academia	6	13.6
Total	44	100.0

The absence of key stakeholders in the production of hides and skins, namely slaughter house owners and butcheries is a matter of concern; thus it is fundamental that these

stakeholders should be approached by the Khartoum Leather Chamber of Commerce. These missing stakeholders play a significant role in the production of quality hides and skins. The frequency of pre-slaughter defects is very high in Sudan, mainly because the slaughter houses are poorly equipped and flayers are not skilled. In addition to this the *Fashoda* factor has promoted the production of hides and skins with a high frequency of per-slaughter defects mainly because the *Fashoda* market, does not discriminate against per-slaughter defects.

Sixty-seven percent of the participants decided that the strategy was for all of the three sectors, namely Government, Private and Academia. Thus, they concluded that all the three institutions should provide full support to its implementation. The success of the leather sector in many countries has been an outcome of collaboration of the three sectors, utilizing the Triple Helix methodology. This reflects a strong ownership of the strategy by the three important pillars in the strategy formulation and implementation. The broadly identified challenges are summarized in Table 11.

Table 11: Consensus Building

Government Strategy	Private Sector Strategy	Academia Strategy	Strategy for All
7	4	1	25

The participants agreed that the Leather Value Strategy was for Stakeholders involved in the leather chain, thus all parties are expected to play a proactive role in its implementation. This positions was supported by 67% of the participants, as illustrated in Table 11.

2.2. Rating of Issues by Stakeholders

During the consultations Stakeholders were also given an opportunity to rate some of the important issues relating to skills and relationships among others. Assessment of such kind of variables is critical, as relationships are a critical ingredient in the successful development of value chains. It may be observed that in certain countries all the relevant institutions are in place and are also well equipped, however their contributions to the development of a value chain maybe insignificant. This scenario is mainly attributed to weak positive relationships, absence of joint planning and infighting. Thus, the presence of relevant institutions is necessary but not sufficient condition for the successful development of a value chain. It is, therefore, imperative that resources should be dedicated to promote positive relationships among the institutions and the leather value chain. This assessment, therefore, gives us a picture of the situation in Sudan. The findings of this assessment are summarized in Table 12:

Table 12: Participatory Assessment of Issues

Issue	Poor	Moderate	Good
Self Assessment by Stakeholders	14	15	7
Top Level Private Sector Management Expertise	15	11	5
Private Sector Middle Technical Management	13	15	3
Private Sector Shop floor Workers	13	13	2
Contributions of Specialized Institutions/Academia to the Leather Value Chain	16	10	7
Specialized Institutions Extension Support to the Leather Value Chain	23	4	1
Technical Capacity of Slaughter facility to produce quality hides and skins	23	4	0
Technical Capacity of local tanneries to produce quality finished leather	16	12	1
Technical capacity to produce quality leather footwear and goods	12	16	1
Total	145	100	27
Relative Importance (%)	53.3	36.8	9.9

The above assessment clearly shows that stakeholders in Sudan rate the performance of their value chain low, with 53.3 % and 36.8% considering the above variables in the poor and moderate category respectively. It is, therefore, imperative that strategies, which

address the core of these issues, are designed and implemented across the value chain, by all the stakeholders.

2.3. Issues Impacting on the Performance of the Leather Value Chain

All participants during the Workshop made contributions, through the use of meta cards, which were then collated and prioritized through a participatory process. The issues, which were generated during the stakeholders meetings, and also through one to one meetings with enterprises, are summarized in a SWOT analysis in Table 13, in the form of a SWOT analysis. The Workshop participants validated and also prioritized these issues, and agreed that strategic interventions, which response to this issues should be crafted. Thus, the strategic intervention should seek to strengthen the **S**trengths, deal with the **W**eaknesses, capitalize on the **O**pportunities and tackle the **T**hreats.

Table 13: SWOT Analysis of the Sudan Leather Value Chain

STAGES	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
CROSS-CUTTING	<ul style="list-style-type: none"> • Federal Government commitment to support the development of the leather sector; • Committed Support by some of the States, for example the State of Khartoum • Organized Chamber of Leather in the Khartoum State • Available raw hides and skins; • Political stability; 	<ul style="list-style-type: none"> • Economic sanctions undermining international business finance; • Limited access to suitable finance; • High cost of finance in comparison to rate of return in the industry • Limited or lack of collaboration of chain players, especially with regard to the Slaughter houses and butcheries who are the primary producers of hides and skins; • Limited support or collaboration with Academia, Private, Civil Society and Government • Weak information systems, this has been reflected by total absence of trade data in international data bases such as Trade Map and COMTRADE; • Poor or no recording trade statistics; • Poor enforcement of standards and also export restriction policy. 	<ul style="list-style-type: none"> • Large scope for value addition • Growing domestic, regional and international market for value added products • Renewed interest by Government to support the sector • Large pool of trainable work force 	<ul style="list-style-type: none"> • Global Economic Slow down • Synthetic materials • Influx of second hand leather products
HIDES AND SKINS PRODUCTION	<ul style="list-style-type: none"> • Very large livestock base in Sudan; • Growing demand for meat, increasing the slaughter rates 	<ul style="list-style-type: none"> • The export of raw hides and skins for human consumption to West Africa; • Weak or inadequate extension support • Poor handling of live animals; • Weak animal husbandry system • Poor slaughter facilities • Poor flaying and conservation techniques; • Poor quality of hides and skins • No or inadequate collaboration as there is no Association for Livestock Traders, Butcheries and Hides, leather association and Skins Collectors; • Absence of a structured system to support the production of quality hides and skins; • Uniform price on hides and skins irrespective of grade 	<ul style="list-style-type: none"> • Expansion and extension of tanneries; • Renewable resource • Readily available markets 	<ul style="list-style-type: none"> • Contagious diseases & parasites • Hides and skins being smuggled to neighboring countries; • Continued expansion of the <i>Fashoda</i> market
TANNERIES	<ul style="list-style-type: none"> • Available Production Capacity to produce up to wet blue • Available work force • Adequate installed capacity for the production of wet blue 	<ul style="list-style-type: none"> • Inadequate technology, technical and production management skills; • Dependent on the importation of the bulk of the chemicals; • Poor environmental control; • Narrow product distribution channels • Limited or no interest to produce finished leather; • Absence of Government policy support to promote production of finished leather; • Poor technical management in tanneries; • Poor management of the production flow of work in tanneries; 	<ul style="list-style-type: none"> • Growing domestic and regional demand for finished leather • Policy and legal support • Room for improvement; • High value addition opportunities from wet blue to finished leather • Growing international demand of leather products; • Renewed regional and international interest to support the industry • Government interest to develop a sector specific policy 	<ul style="list-style-type: none"> • Increased competition from synthetic and imported products; • International markets view Sudan as a raw material supplier rather than finished leather; • Poor working standards, which are contra international labour standards in some of the tanneries • Growing market demand for footwear

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

2.4. Conclusion and Emerging Priority Intervention Areas

The quantitative and qualitative analysis in Chapter II and in this Chapter reveals the key issues that must be addressed by this Strategy to ensure the optimization towards value addition of the raw hides and skins produced in Sudan. The following are the main issues, which were identified during the Stakeholders Workshop and through the quantitative analysis of data:

Table 14: Summary of Emerging Strategic Intervention Areas

#	Challenges Identified
1	Limited or no collaboration among the Stakeholders – this was impacting negatively on policy implementation, production of quality hides and skins, finished leather, footwear and leather goods. For example Universities are producing graduates, which are not being absorbed by the industry, because there seem to be a mismatch of their skills and what the industry requires.
2	Absence of viable long term and short term Finance – All Private Sector Stakeholders operating along the value chain are facing acute shortage of finance. The market interest rates are not viable for both short term and long term investments. This has forced the value chain to depend on self financing based on advance from international buyers. Whereas this has kept the industry afloat, it was however undermining its growth as it has given international buyers a string negotiating position, thus pushing down the profit margins due to the local industry. Absence of long term finance has undermined the technology update in the industry; consequently most companies were operating with outdated machinery and equipment.
3	Production of poor quality hides and the <i>Fashoda</i> Factor – It is estimated that approximately 70% of cow hides are below grade three because of flaying defects, holes, cuts, gorges etc. The following factors have contributed to the production of low grade hides: poor flaying skills; lack of proper supervision and mechanization of slaughter facilities; absence of hides and skins extension and inspection; limited collaboration between butcheries and slaughter houses to ensure the production of quality hides; uniform price for all grades; disorganized market. This situation has been further worsened by the <i>Fashoda</i> factor, because a hide with more than 100 holes or badly preserved has a market, thus the incentive of producing quality hides and skins has now been completely eliminated. Whereas the flaying defects on sheep and goat skins are minimal, it was observed that delayed and under salting was impacting negatively on the quality of the skins. In addition no efforts were being made to clean the hides and skins before salting. Most of the storage facilities for hides and skins in some of the tanneries and collection centres are very dirty.
4	Lack of Human Capacity: All participants agreed that the number and quality of expertise in Public, Private and Academia was limited to support the growth of this sector. This scenario was undermining the delivery of support to the Private Sector by Government and Academia. Additionally the Private Sector was being forced to hire international experts, which was not sustainable for their operations.
5	Limited enforcement of policies/regulations and bureaucracy in export documentation: Participants argued that there were a number of policies and regulations aimed at supporting the leather value chain, which were not being implemented to the detriment of the industry. In addition export documentation process was long and office dealing with the same matter was spread all over Khartoum. It was reported that it takes a minimum of 3 weeks to clear documents
6	International Sanctions: Sanctions were impacting on international transactions for both exports and imports. In addition, they were stifling international investments.
7	Export of raw hides and wet blue and production of poor quality finished leather – The export of raw hides and skins was impacting negatively on tanning capacity utilization. Absence of long term finance was impacting the expansion of tanning capacity to produce quality finished leather. SMEs in the footwear and leather production subsector were being forced to import from Egypt.
8	Absence of Industrial Parks: Centralized Industrial Parks are supporting the growth of the leather industries globally. These industrial parks are usually equipped with centralized effluent treatment plants, which normally reduce environmental hazards associated with the leather industry and a shared cost.

Stakeholders agreed that strategic interventions should be crafted to address the above issues in a systematic way, which would stimulate the growth of the industry. The broad strategic interventions, should contribute to the achievement of the following:

- Increased value addition, employment creation, export and fiscal revenue;
- Increased human capacity across the value chain;

- Increased collaboration among the Public, Private and Academia;
- Increased production of quality finished leather, footwear and leather goods;
- Establishment of an Industrial Park;
- Promotion of cleaner production through quality certification; and
- Policy enforcement and streamlining of bureaucratic procedures.
- Setting up of Institutional Body/Council –made up of an Executive and a Technical Committee.

The above emerging issues contributed to the formulation of strategic objectives that are presented in the following Chapter. These objectives are aimed at addressing the core issues impacting negatively on the performance of the leather value chain in Sudan.

CHAPTER IV: STRATEGY

4. 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 Sudan's leather value chain from the production and export of raw hides and skins and partly processed products to the production and export of value added products such as finished leather, footwear and leather garments/goods.

4.1. Vision and Mission

VISION

To be among the top five economic subsectors in Sudan with regard to contribution to GDP and Trade by 2025.

MISSION

To transform the Sudan's Leather Value Chain into a modern and competitive subsector specializing in the production of value added products through the application of modern and cleaner technologies, collaboration, capacity building, policy guidance and resource mobilization.

4.2. Strategic Market and Growth Goals

In accordance with the Vision and Mission of the Strategy, the Stakeholders identified specific target markets for selected products. The overall market direction shifts the focus of the Leather Subsector towards the production of value-added leather products, such as crust, finished leather, footwear and leather goods, for the domestic and export markets. The ultimate objective is to foster the production and export of value added products so as to promote job creation, income and foreign exchange generation and economic growth. See the products and market targets illustrated in Table 15.

Table 15: Target Market Growth

	Wet blue	Crust leather	Finished leather	Leather Goods
Domestic			After 2 years	<ul style="list-style-type: none"> Expand production in yr 1 and 2 based on imported leather Year 3 depending on locally produced leather
Export	ongoing	After 1.5 years	In year 3	In year 4 and onwards

In order to improve accountability, it is important to introduce quantifiable indicators, which would be used as benchmarks in assessing the impact of implementing the Strategy. The growth targets which were discussed during the Stakeholders Consultation Workshop are summarized in Table 16 and the growth targets for each product category are set.

Table 16: Growth Strategic Targets

Product Description	Growth Targets		
	2015-2018	2019-2022	2023-2024
Raw Hides and Skins	Reduction in the export of raw hides and skins by	Reduction in the export of raw hides and skins by	No export of rawhides and skins

	50% based on 2014 export figures	90% based on 2014 export figures on cumulative basis	
Wet blue	85% of hides and skins produced in Sudan are converted into wet blue	95% of hides and skins produced in Sudan are converted into wet blue	100% of hides and skins produced in Sudan are converted into wet blue
Crust leather	50% of the total hides and skins exported as crust	100% of the total hides and skins exported as crust on cumulative basis	90-100% crust retained at domestic level for support of finished leather
Finished leather	25% of total converted into finished leather for domestic production	50% of total converted into finished leather for domestic production	95% of finished leather availed to support leather products development for domestic and export markets
Footwear	Increase output by 400,000 pairs per annum	Increase by 50% based on the 2015-18	Increase by 50% based on 2019-22 figures.
Leather goods	Increase output value by 25%	Increase output value by 50% based on the 2015-18	Increase output value by 75% based on 2019-22 figure

4.3. Strategy Objectives and Sub objectives

The specific objectives and interventions listed in the Table 17 elaborate the proposed mechanisms of addressing the issues identified by stakeholders and also drawn from the quantitative analysis. Sub objectives are listed under each specific objective. The implementation of such interventions would contribute towards the attainment of the main thrust of this strategy, which is to promote the production and trade of value added products, namely, finished leather, footwear and leather goods. The Strategy's objectives and the rationale of selecting the given objectives are summarized in the Table 17.

Table 17: The Rationale for the Selected Objectives

Objectives	Rationale based on Emerging Issues Summarized in Chapter III
Strengthen horizontal and vertical collaboration among value chain players and stakeholders	<p>Collaboration is essential in enabling optimization in resource use and dealing with emerging challenges systematically and coherently. In addition it responds to the following specific issues:</p> <ul style="list-style-type: none"> • Lack or inadequate horizontal and vertical collaboration among Value Chain Agents was undermining the optimization of the available resources; • Limited collaboration of value chain agents with external stakeholders such as Academia, Quality and Standards Development Organizations, Financial Institutions and Development Partners among others, was undermining growth of the sector • Cross -cutting issues have a bearing on the creation of an enabling business environment.
Improve accessibility of short-term and long-term finance to enterprises	Sudan is currently under international sanctions; hence the access to international finance is limited or almost non-existent. Given the scenario the Federal and State Governments of Sudan must take proactive action to provide both short and long term finance to enterprises in the leather value chain, given the potential the sector holds.
Improve the production of quality hides and skins	<p>This objective is based on the fact that increased production of quality hides and skins and value addition would enhance income earnings, employment creation and poverty alleviation. In addition, it responds to the following issues summarized in Chapter III:</p> <ul style="list-style-type: none"> • The quality of hides and skins being produced in Sudan is deteriorating; • Continuous export of raw hides/skins and wet blue was costing the country in terms of forgone revenue earnings • Lack of technically qualified extension staff to assist in livestock production.

Objectives	Rationale based on Emerging Issues Summarized in Chapter III
To Capacitate SMEs/ cottage industries for higher end value addition and competitiveness in domestic, regional and international markets	<p>SMEs in Sudan depend on informal imports of all materials and they also use rudimentary tools. Thus they face many challenges; an strategic mechanism to address the problems these SMEs are facing is to establish or formalize the existing clusters.</p> <p>In addition, this would increase the demand of finished leather in Sudan; hence, would act as a market pull for tanneries to produce finished leather. Secondly, the support of these SMEs would create employment and promote the consumption of domestically produced footwear, thereby contribute to the improvement of the balance of payment, as imports of footwear stood at US\$58 million in 2012.</p>
To promote quality and cleaner and environmentally sustainable production techniques and systems	The leather value chain has been known to produce hazardous wastes, 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.
Promote the production of value added products	Export of raw hides and skins is tantamount to exporting jobs and incomes, thus, it is imperative that support should be given to promote the production of finished leather and leather products. This would enhance the generation of incomes, foreign currency, jobs and also revenue for the government. The deepening and extension of the value chain within Sudan would widen the tax base for Government, unlike at the moment when a significant amount of materials are being exported in raw state, thus limiting taxation to hides and skins exporters only.
Improve policies and enhance efficiency and effectiveness in their implementation	Policies should be instituted that are geared towards the promotion of value addition. A clear policy direction act as a signal to industrialists and potential investors. It is however imperative that the implementation of these policies should be efficient and effective. It was reported that red tape was a big challenge, especially in obtaining export papers, as offices dealing with the same matter are scattered all over Khartoum. A lead time of 7 to 15 days was reported, as the time required obtaining export papers.
Facilitate the establishment of Leather Industrial Parks with common effluent treatment plants.	Attract investors to set up a new tannery, as they would be guaranteed of meeting the minimum environmental standards. In addition a common industry park with a common effluent plant, would enhance the competitiveness of the produced leather, as it has been observed that common effluent plant reduces overheads of tanning facilities significantly. The development of the Industrial Park could be phased starting with the Common Effluent Plant and then extended to include other facilities. However, the various phases should be informed by a feasibility study. The steps are detailed in the action plan matrix.

4.3.1. Sub-Objectives, Activities and Measurable Outputs

In this Section specific sub objectives, activities and expected output indicators under each of the prioritized objectives are presented. The assumption is that the implementation of these activities would generate outputs that would create outcomes that would in turn contribute to the attainment of this Strategy's Vision; and this will be manifested through measurable indicators specified under Strategic Market and Growth Goals. The specific activities would be crafted as part of the annual work plan by the coordinating Ministry in consultation with the relevant Stakeholders.

Objective 1: Strengthen horizontal and vertical collaboration among value chain players and stakeholders

The cluster and value chain theories recognize that the cause of underperformance among enterprises maybe attributed to the isolation phenomenon, which is common in most developing countries, Sudan included. Thus, horizontal and vertical collaboration is essential in addressing common problems optimally, by sharing the costs associated with it. Collaboration can be used to deal with both supply and demand constraints, which are usually difficult to deal with in isolation. Engagement with stakeholders such as Academia, Development Partners, Financial Institutions, Technical and Service Providers in a

systematic manner is critical. This enables the sector to reap from economies of scale of collective action. The Sub-objectives, which would contribute to such an attainment, are articulated in Table 18.

Table 18: Objective 1 Strategic Activities: Strengthen Horizontal and Vertical Collaboration among the Value Chain Players and Stakeholders

Objective 1: Strengthen horizontal and vertical collaboration among value chain players and stakeholders			
Sub-objective and Activities	Expected Output	Stakeholders	Budget Estimate
Activities			
Identify and develop an inventory of agents at every segment of the leather value chain;	<ul style="list-style-type: none"> The inventory is disseminated by mid 2015; Inventory continuously updated with time 	Line Ministries, Sudan Bureau of Standards, Academia, Industry, Finance	
Facilitate the formation/strengthening of associations at every state of the value chain;	Association established and legally registered by end of 2015	Institutions and other stakeholders, Sudan Bureau of Statistics, Hides and Skins Improvement Department, Ministry of animal resources and Fisheries, Relevant State Ministries	
Facilitate vertical collaboration by forming an Apex Council of the leather value chain;	Apex Council established and officially registered by 2016		
Identify external stakeholders and formulate mechanism of working with them.	<ul style="list-style-type: none"> Stakeholders inventory designed and methodologies for working with them developed and implemented by 2015 Inventory continuously updated with time 		
Establish a Private Sector Fund to support the implementation of program to improve the leather value chain	<ul style="list-style-type: none"> Fund operationalized by mid 2015. 		
Review the performance of the Sector quarterly	<ul style="list-style-type: none"> Reports shared with all relevant stakeholders; Recommendations implemented 		
Facilitate the organization of SMEs in to clusters	<ul style="list-style-type: none"> 4 Clusters of 50 SMEs each established by 2015; 4 Cluster of 50 SMEs facilitated to procure jointly or have access to joint machinery under one roof by 2018; Strategic linkages between clusters and support Institutions established; International quality and environmental standards by 2020 more than 50 % of back to school shoes are produced in Sudan by 2025; 75% of Police and Military footwear requirements are produced in Sudan by 2020; Export of footwear increased by 25% into the regional and international markets by 2025 	Line Ministries, COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Sudan Chamber of Commerce and Industry, Secondary and Primary Schools, Ministry of Education, Ministry of Defense and Home Affairs	
Ensure efficient institutional infrastructure that serves its members	Specialized institute working together to implement the strategy by 2015	Ministry of Industry and Trade, UNIDO, COMESA/LLPI, Other Development partners	

Objective 1: Strengthen horizontal and vertical collaboration among value chain players and stakeholders			
Sub-objective and Activities	Expected Output	Stakeholders	Budget Estimate
Establish the Sudanese Leather Development Council	The council established by mid 2015	Ministry of Industry and Trade, UNIDO, COMESA/LLPI, Other Development partners	

Objective 2: Improve Accessibility of Short and Long-term Finance to Enterprises

Financial resources play a significant role in supporting the capitalization of the sector and also to support full capacity utilization, which is critical in boosting productivity and lowering of unit production costs through economies of scale. Currently Sudan is under international sanctions, which makes it extremely difficult for local enterprises to access both short and long term and finance outside Sudan, thus it is imperative that the Federal and States Government step in to support the leather industry, which has the potential of generating income of approximately US\$1.4 billion per annum. The Sub-objectives for attaining this Objective are summarized in Table 19.

Table 19: Objective 2 Strategic Activities: Improve Accessibility to Short and Long-term Finance to Enterprises

Objective 2: Improve accessibility of short-term and long-term finance to enterprises			
Sub-objective	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/LLPI, Academia, Sudan Standards Authority, Financial Institutions and other stakeholders	
Creation of educated generation of workers with basic employable skills according to a recognized functional map and skills standards.	Division of labour induced higher productivity		
Design suitable financial instruments in consultation with national, regional and international development banks	Instruments designed and implemented by 2015	Government, National Bank	
Mobilize funding from national, regional and international finance corporations and also from Government	Amount allocated in every annual budget starting 2015.	Government, Ministry of Industry, Trade, Development partners	
Build the capacity of value chain actors including support industries and regulatory authorities on modalities of accessing finance	1,000 enterprises trained by end of 2025	Ministry of Industry, trade, UNIDO, COMESA/LLPI	
Design a system for monitoring and usage of the mobilized resources, to ensure resource optimization	System Developed and implemented by 2015	Specialized Institution set to support the Leather Industry	
Develop policies aimed at promoting value addition in the leather value chain	Policies developed and implemented by 2015	Government, (legislative, regulatory)	

Objective 3: Improve the Production of Quality Hides and Skins

Under Objective 3, issues pertaining to hides and skins improvements are addressed; this is mainly because quality of raw materials is essential for the cost effective production of quality value added products. This objective focuses on enhancing capacity at primary

producer, slaughter houses and preservation/storage levels of the leather value chain in order to get hides and skins readily available for value addition in large quantity and better quality. The specific sub-objectives and expected outcomes, which would contribute to the attainment of the above objective, are listed in Table 20.

Table 20: Objective 3 Strategic Activities- Improve the Production of Quality Hides and Skins

Objective 3: Improve the production of quality hides and skins			
Sub-objective	Expected Output/Outcome	Stakeholders	Budget Estimate
Facilitate the development of improved husbandry practices	<ul style="list-style-type: none"> by end of 2025 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Facilitate the development of an efficient Hides and Skins production, system	<ul style="list-style-type: none"> Peri-slaughter defects incidence reduced by 75% by 2018 Non collected hides and skins percentage decreased by 50% by 2022 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Facilitate the development of an efficient Hides and Skins preservation storage and transport system	<ul style="list-style-type: none"> Post-slaughter defects incidence reduced by 75% by 2018 Loss of hides and skins before reaching tannery reduced by 50% by 2020 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Facilitate the production of semi and finished leather, which meet international quality and environmental standards	<ul style="list-style-type: none"> 85% of hides and skins produced in Sudan are converted into wet blue by 2018; 100% of the total hides and skins exported as crust leather by 2022 100% of total converted into finished leather for domestic and export markets by 2025 100% are ISO certified for meeting international quality and environmental standards by 2025 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Raise awareness on the importance of hides and skins among the value chain players	<ul style="list-style-type: none"> Improved knowledge on the importance of hides and skins at policy and meso-levels by 2024 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Train Slaughter house foremen/supervisors for enforcing total quality management in the flaying process	<ul style="list-style-type: none"> 200 people trained by 2018 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Train flayers on proper flaying techniques	<ul style="list-style-type: none"> 1000 flayers trained by 2018 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Train collectors and slaughter house owners and workers on proper preservation techniques;	<ul style="list-style-type: none"> 200 collectors trained by 2018 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Promote then use of hides and skins standards in flaying and marketing of hides and skins.	<ul style="list-style-type: none"> Leather Chamber agree to use the agreed standards in their transactions by end of 2015 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Strengthen the Hides	<ul style="list-style-type: none"> Improved extension support to 	Line Ministries COMESA/LLPI,	

Objective 3: Improve the production of quality hides and skins			
Sub-objective	Expected Output/Outcome	Stakeholders	Budget Estimate
and Skins Production Department to undertake hides and skins inspection or widen the scope of meat inspectors to include hides and skins inspection;	Slaughter houses and collectors; • Significant reduction in both peri and post-slaughter defects	UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Come up with a database of all players involved in livestock trading, butcheries and hides and skins collectors;	• Data base in place by end of 2015	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Come up with information collection to generate a hides and skins pricing index	• Index constructed by end of 2015	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Develop a mechanism of butcheries to incentivize slaughter houses to produce quality hides and skins	• Incentive scheme designed and implemented by end of 2015	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Facilitate the refurbishment and capitalization of all slaughter houses	• All slaughter houses refurbished and capitalized by the end of the strategy period.	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	

Objective 4: Promote the Production of Value Added Products

Value addition is the fulcrum of value chain development, as it enables the generation of increased incomes, jobs, foreign currency earnings, Government revenue and interlink ages with other subsectors of the economy. It is important that strategic interventions that are geared and incentivizing value addition, through policy and other support measures, are put in place. Sudan has the potential of generating approximately US\$1.4 billion dollars is value addition reaches the level of producing finished leather products in Sudan; however as per 2013 Sudan only earned approximately USD40 million in export earnings. This is a paltry earnings, when compared with other countries like Kenya, whose livestock base is a third of Sudan, which earned US\$160 million in the same year. This growth has been recorded at the back of an effective implementation of an export restriction taxation of raw hides and skins. Kenya is moving to impose an export tax on wet blue, which is a feat already achieved by Ethiopia. The specific sub-objectives and expected outcomes, which would contribute to the attainment of the above objective, are listed in Table 21.

Table 21: Strategic Objective 4: Improve the Production of Value Added Products

Objective 4: Promote the Production of Value Added Products			
Sub-objective	Expected Output/Outcome	Stakeholders	Budget Estimate
Undertake a detailed study on the constraints being faced by enterprises across the value chain	• Technical and equipment gaps identified by mid 2015	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
On the basis of the Study estimate the financial	• Financial resources requirement report	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of	

Objective 4: Promote the Production of Value Added Products			
Sub-objective	Expected Output/Outcome	Stakeholders	Budget Estimate
resources required to improve the value addition process.	agreed by all Stakeholders by mid 2015	Standards, Specialized and academic Institutions; Leather Chamber	
Avail resources to improve the performance of these enterprises in form a revolving fund	<ul style="list-style-type: none"> Resources availed to enterprises on the basis of bankable business plans starting mid 2015. 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Asses the installed capacity for wet blue production of tanneries vs the raw hides and skins production, and revise and set an optimal export tax for raw hides and skins	<ul style="list-style-type: none"> Report published and implemented by mid 2015 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Asses the domestic consumption of finished leather and set an optimal export tax and finished leather	<ul style="list-style-type: none"> Report published and implemented by mid 2015 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Design tax incentives and other schemes for enterprises improving their value addition process.	<ul style="list-style-type: none"> Incentives designed and implemented by mid 2015 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Institute Government procurement to support enterprises producing finished leather footwear and goods.	<ul style="list-style-type: none"> A quota set for domestic procurement targeting SMEs clusters by end of 2015. 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	

Objective 5: Enhance Efficiency and Effectiveness in Policy, Regulations and Export Procedures implementation

Efficiency and effectiveness is important in the implementation of policies, regulations and procedures, as it has a bearing on enterprises productivity and rate of turnover. International business is time bound, and failure to meet timelines has serious negative implications to business operations, as important customers may be lost to other suppliers. It was reported during consultation that export procedures in particular are very bureaucratic and on average it may take 7 to 15 business days to obtain all the relevant papers to effect an export order. In other countries these processes have been made online and papers maybe cleared in less than one day. The given situation puts enterprises in Sudan at a disadvantage, thus undermining their competitiveness in terms of meeting delivery timelines.

It was also reported that a lot of hides and skins are being smuggled especially to West Africa, thus undermining the performance of the leather value chain and also costing the Government in terms of lost revenue earnings. It is, therefore, imperative that a robust system should be put in place to reduce the smuggling of raw hides and skins. The specific sub-objectives and expected outcomes, which would contribute to the attainment of the above objective, are listed in Table 22.

Table 22: Strategic Objective 5: Enhance Efficiency and Effectiveness in policy, regulations and Export Procedures

Objective 5: Enhance Efficiency and Effectiveness in Policy, Regulations and Export Procedures implementation			
Sub-objective	Expected Output/Outcome	Stakeholders	Budget Estimate
Take an inventory and assess all policies and regulations impacting of the performance of the leather value chain	<ul style="list-style-type: none"> Report produced and recommendations implemented by mid 2015 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Undertake a gap analysis of the institutions involved in the implementation of the above policies	<ul style="list-style-type: none"> Report produced and recommendations implemented by mid 2015 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Implement recommendations to address the identified gaps in order to improve efficiency and effectiveness.	<ul style="list-style-type: none"> Recommendations implemented annually 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Institute value addition incentives to support the value addition agenda	<ul style="list-style-type: none"> Incentives designed and implemented in the 2016 National Budget 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Institute a policy regulation to penalize slaughterhouses producing poor quality hides and skins	<ul style="list-style-type: none"> Regulations promulgated and implemented by end of 2015 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Design and legislate the specifications of a suitable hides and skins storage facility	<ul style="list-style-type: none"> All collectors redesign their preservation facilities in line with the regulations by end of 2017. 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	
Institute a policy regulation to penalize hides and skins collectors marketing poorly preserved hides and skins	<ul style="list-style-type: none"> Regulations promulgated and implemented by end of 2016 	Line Ministries COMESA/LLPI, UNIDO, FAO, Sudan Bureau of Standards, Specialized and academic Institutions; Leather Chamber	

Objective 6: Facilitate the Establishment of Leather Industrial Parks with Common Effluent Treatment Plants and Promotion of Cleaner Production Techniques.

The leather value chain has gained negative publicity across the globe because of the utilization of technologies, which have resulted in environmental pollution and damage. This is mainly because of the use of salt and chemicals in the preservation and leather production respectively. It is imperative to note that technological advancement has led to the generation of the development for 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 Sudan, have not fully internalized these technologies. The usage of cleaner and environmentally friendly technologies, besides protecting the environment, are also an important marketing tool. This objective, thus, focuses on ensuring that all enterprises involved in the leather value chain embraces leaner and environmentally friendly production technologies.

A collective mechanism of addressing effluent treatment and management is the establishment of industrial parks. The establishment of an industrial park with common effluent treatment plant, would reduce tanneries operational cost and also make these tanneries to meet the Sudanese and global environment standards. The meeting of the later would be an important marketing tool, as Sudanese products would be acceptable in international sophisticated markets, which place meeting environmental standards as one of the minimum entry requirements in such markets.

The specific Sub-objectives, which would contribute to the attainment of the above objective, are summarized in Table 23:

Table 23: Strategic Objective 6: Facilitate the Establishment of a Leather Industrial Parks with Common Effluent Treatment Plants and Promotion of Cleaner Production Techniques

Objective 6: Facilitate the Establishment of a Leather Industrial Parks with Common Effluent Treatment Plants and Promotion of Cleaner Production Techniques.			
Sub-objective	Expected Output/Outcome	Stakeholders	Budget Estimate
Undertake technical, environmental and financial feasibility study of the area designated	<ul style="list-style-type: none"> Assessment undertaken and shared with all stakeholders by mid 2015 	Line Ministries, FAO, UNIDO, COMESA/LLLPI, Sudan Bureau of Standards, Academia, Industry, Finance Institution and other stakeholders	
Come up with the design of the industrial park, including all the relevant infrastructure requirements: electricity, water and common effluent treatment plants;	<ul style="list-style-type: none"> Design completed by end of 2015 	Line Ministries, FAO, UNIDO, COMESA/LLLPI, Sudan Bureau of Standards, Academia, Industry, Finance Institution and other stakeholders	
Mobilize resources to construct the industrial park in phases	<ul style="list-style-type: none"> Resources allocated for its construction in the 2016 budget 	Line Ministries, FAO, UNIDO, COMESA/LLLPI, Sudan Bureau of Standards, Academia, Industry, Finance Institution and other stakeholders	
Construct the industrial park	<ul style="list-style-type: none"> The industrial park constructed and completed by mid 2017 	Line Ministries, FAO, UNIDO, COMESA/LLLPI, Sudan Bureau of Standards, Academia, Industry, Finance Institution and other stakeholders	
Undertake an audit or gap analysis in the technologies being used in Sudan vs. those being used in modern production facilities globally;	<ul style="list-style-type: none"> Audit completed by end of 2015 Audit report disseminated by end of 2015 Audit recommendation implemented by end of 2022 	Line Ministries, FAO, UNIDO, COMESA/LLLPI, Sudan Bureau of Standards, Academia, Industry, Finance Institution and other stakeholders	
Work in collaboration with the value chain players to design a programme for closing the identified gaps;	Program designed and implemented by 2022		
Mobilize resources to facilitate the deployment of cleaner and environmentally friendly production techniques;	Resource mobilization program designed and implemented by 2022		
Design a monitoring system of the implementation of the cleaner production programme	System designed and implemented by 2015		

4.4. Implementation Methodology

The Strategy Implementation is envisaged to be coordinated by the Ministry of Industry and Trade with the entire relevant stakeholders. It is important to note that the Public Private Sector collaboration is central 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 earlier on in Tables 15 to 23. The implementation approach is presented in Figure 9.

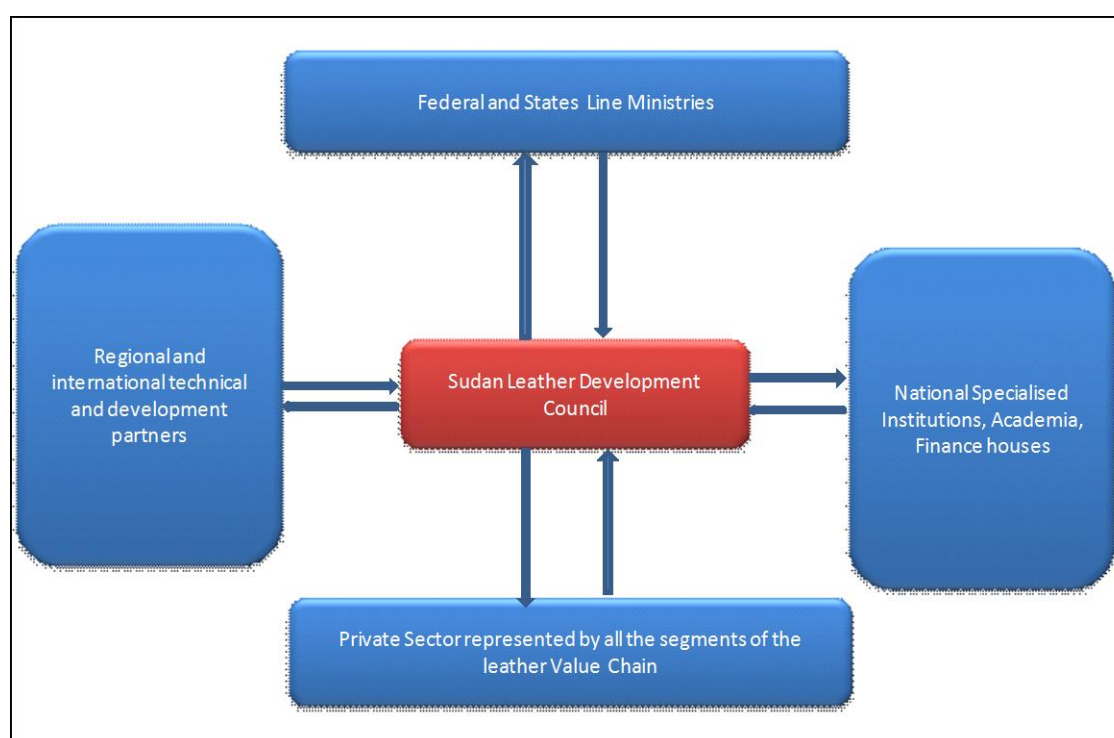


Figure 9: Proposed Implementation Approach

The Sudan Leather Development Council is expected to spearhead the implementation of the Strategy in collaboration with all the relevant Stakeholders drawn from Government, Private Sector and the Academia. The Council would be led by a Chief Executive from the Private Sector and appointed by the President of the Federal Republic of Sudan. The main Institutions of the Council would be the Executive Council and the Technical Committee. The Composition of the two Instructions is summarized in Table 24.

Table 24: Composition of the Executive Council and Technical Committee

Executive Council	Technical Committee
<ul style="list-style-type: none"> • Ministry of Industry • Ministry of Animal Resources and Fisheries • Ministry of Finance • Chamber of Leather • Ministry of Environment 	<ul style="list-style-type: none"> • Technological Leather Incubator • Hides and Skins Improvement Centre • National Leather Technology Centre • Standards and Metrology • Training and Vocational Centres • Department of Customs • Department of Statistics.

However in the short-run before its establishment, there should be an Interim Committee to drive the implementation of the Strategy, composed with representatives drawn from the Institutions listed in Table 24.