102984

Mapping Global and Regional Value Chains in SACU

Sector-level overviews

Prepared with:[1]

[1] For any questions please contact: tfarole@worldbank.org


CDC
Corridor Development Consultants


KAISER
EDP
ECONOMIC
DEVELOPMENT
PARTNERS
www.kaiseredp.com


GAIN

TABLE OF CONTENTS

TABLE OF CONTENTS i

EXECUTIVE SUMMARY 3

1. INTRODUCTION 4

1.1 Global Value Chains and Regional Integration in SACU 4
1.2 Objectives and Approach 9
1.3 Structure of This Report 10

SECTION 1: MANUFACTURING 11

2. AUTOMOTIVE 12

2.1 Structure of the Automotive Value Chain in SACU 12
2.2 Opportunities and Constraints to Global and Regional Automotive Value Chains 15
2.3 Summary of Trade-Related challenges 20

3. TEXTILES AND APPAREL 23

3.1 Structure of the Textile and Apparel Value Chain in SACU 23
3.2 Opportunities and Constraints to Global and Regional Textile and Apparel Value Chains 25
3.3 Summary of Trade-Related Challenges 28

SECTION 2: AGRIBUSINESS 31

4. AGRO-PROCESSING 32

4.1 Structure of the Agro-Processing Value Chain in SACU 32
4.2 Opportunities and Constraints to Global and Regional Agro-Processing Value Chains 33
4.3 Summary of Trade-Related Challenges 40

5. SUGAR 43

5.1 Structure of the Sugar Value Chain in SACU 43
5.2 Opportunities and Constraints to Global and Regional Sugar Value Chains 46

6. CEREALS AND MILLING 48

6.1 Structure of the Sugar Value Chain in SACU 48
6.2 Opportunities and Constraints to Global and Regional Cereals Value Chains 52

7. BEEF AND LIVESTOCK 55

7.1 Structure of the Beef Value Chain in SACU 55
7.2 Opportunities and Constraints to Global and Regional Beef Value Chains 57
7.3 Summary of Trade-Related Challenges 63

8. POULTRY 67

8.1 Structure of the Poultry Value Chain in SACU 67
8.2 Opportunities and Constraints to Global and Regional Poultry Value Chains 70

9. DAIRY 72

9.1 Structure of the Dairy Value Chain in SACU 72
9.2 Opportunities and Constraints to Global and Regional Dairy Value Chains 77

SECTION 3: MINERALS AND TOURISM 79

10. PRECIOUS METALS (GOLD / PLATINUM / SILVER) 81

10.1 Structure of the Precious Metals Value Chain in SACU 81
10.2 Opportunities and Constraints to Global and Regional Precious Metal Value Chains 84

11. DIAMONDS 85

11.1 Structure of the Diamonds Value Chain in SACU 85
11.2 Opportunities and Constraints to Global and Regional Diamonds Value Chains 89

12. COAL 91

12.1 Structure of the Coal Value Chain in SACU 91
12.2 Opportunities and Constraints to Global and Regional Coal Value Chains 94

13. TOURISM 95

13.1 Introduction to Tourism Value Chains in SACU 95
13.2 International Organized Holiday Travel 102
13.3 Meetings, Incentives, Conferences and Exhibitions (MICE) 110
13.4 Foreign Independent Travel (FIT) 113
13.5 Overall Observations on Tourism Value Chains and Areas for Support 116

SECTION 5: CONCLUSIONS 118

14. SUMMARY AND CONCLUSIONS OF VALUE CHAIN ASSESSMENTS 119

14.1 Summary of Key Dynamics across Value Chains 119
14.2 Policy Implications 120

EXECUTIVE SUMMARY

To be completed

1. INTRODUCTION

1.1 Global Value Chains and Regional Integration in SACU

Global value chains and the link to regional integration

In considering the prospects for expanding non-commodities exports, the SACU region faces a global environment that has changed markedly over the past two decades. First, trade is increasingly shifting away from high income countries and toward developing countries. Second, and perhaps most importantly, is the increasing importance of or "global production networks" or "global value chains" (GVCs) (see Box 1). With wages rising rapidly in China and other places where GVC-oriented trade is concentrated, parts of these value chains are migrating to new global locations. Some estimates indicate that over the next generation 85 million manufacturing jobs will migrate from coastal China, and Sub-Saharan Africa is expected to be a major beneficiary[2]. The SACU region – with its abundance of natural capital and surplus labor, along with a relatively high quality infrastructure and institutional environment – should be in a good position to attract investment and create a "Factory Southern Africa". Beyond assembly manufacturing that is typical of GVCs (e.g. apparel, electronics, automotive), the region should also be well-placed to compete as a location for value-addition to agricultural and mineral commodities ("beneficiation"). Both types of investment would not only drive exports and have the potential to create significant employment, but also support upgrading by accessing global technologies and knowledge. And with growing markets across Africa, a "Factory Southern Africa" might increasingly be sustainable in the regional context.

Box 1: Global value chains

Global value chains (GVCs) involve task-based trade across multiple stages of the production process that take place across a number of different countries, in which multiple inputs and exports of intermediate goods and services are necessary to produce a final good, which may also be exported. This "second unbundling" of global trade[3] was made possible by a combination of improved shipping technology, revolutionary changes in ICT, and global trade liberalization which enabled multinational firms to take advantage of differences in comparative advantage across locations to establish integrated networks of intra and inter-firm production and trade. More than half of world manufactured imports are now intermediate goods and more than 70 percent of world services imports are intermediate services[4].

GVC-oriented trade offers opportunities for developing countries to benefit from global integration, and is at the heart of the East Asian success story**.** GVC trade offers particular potential for smaller developing countries. In the past, for a country to become an apparel exporter, for example, they would need design capabilities and textile mills; to export in the automotive sector they would need to produce engines and all subcomponents, as well as having the scale to carry out assembly. Under the new trade dynamics, a developing country can specialize in certain activities (sewing, specific components or subassemblies) and import the necessary inputs. While such a situation does not guarantee significant value capture and upgrading by developing economies (see below), it does provide a vital first step on the ladder. Nowhere is this more evident than in China, and more widely across East Asia, where GVCs are at the heart of the open-economy growth model that was responsible for the growth and poverty reduction success story of the region in recent decades. With China as the regional engine, deep cross-border production networks were developed in East Asia, taking advantage of:

---

[2] Lin, J. 2011. How to Seize the 85 million Jobs Bonanza. July 27, 2011. http://blogs.worldbank.org/developmenttalk/how-to-seize-the-85-million-jobs-bonanza

[3] Baldwin, R. 2011. "Trade And Industrialisation After Globalisation's 2nd Unbundling: How Building And Joining A Supply Chain Are Different And Why It Matters." NBER Working Paper No. 17716.

[4] OECD. 2012. "Mapping Global Value Chains." 4-5 December 2012. The OECD Conference Centre, Paris

low wages and large labor forces (China, then Vietnam, Cambodia, and Indonesia); technology driven from lead countries like Taiwan and Korea (increasingly China, Malaysia, and Thailand); and logistics and services from Singapore and elsewhere.

Competing in GVCs will require scale economies that are limited in the region, and non-existent outside of South Africa. For this reason, South Africa will play a critical role as a demand engine and gateway, but it will rely on the rest of the region in order to benefit from differing sources of comparative advantage across the countries. Indeed, *regional* integration in the context of *global* value chains is likely to be the key to successful export-orientated growth in SACU. International evidence suggests that regional integration can be a driving force for growth and income convergence. In Europe, for example, the single market has facilitated private capital flows from richer to poorer countries and from low to high growth economies, resulting in faster convergence in incomes and living standards than anywhere in the world.[5] In East Asia similarly, greater integration has led to the development of advanced regional production networks that have underpinned its spectacular growth from a poor, underdeveloped agricultural backwater to becoming the global factory today. At the heart of this integration is the linkage between trade in goods; investment in regional supply chains, technology and business relationships; and the use of efficient infrastructure services (telecom, internet, transport) to coordinate dispersed production.

The current state of global and intra-regional trade in SACU

From an export perspective the region can be characterized as having two types of countries. First, Botswana, Namibia, and (to a lesser extent) South Africa rely heavily on the mining sector and the exports of raw materials, with most exports going outside the region. Second, Swaziland and Lesotho have narrow but well-developed industries that drive most export earnings: in the case of Swaziland it is sugar and (related) concentrated beverage syrups; in Lesotho it is apparels and textile. While these countries also export globally, they have a much greater reliance on regional markets.

Taking exports and imports together, SACU's value of trade within its borders equals approximately 14% of its total trade with the world, which is higher than the estimated percentage the African continent trades with itself (10% of total world trade)[6]. What is most pronounced about this regional trading landscape is the dominance of South Africa (Table 1)[7]. South Africa accounts for 97 percent of all trade in the region (which slightly ahead South Africa's share of regional GDP) and runs a very large trade surplus with the region. The remainder of countries run extremely large intra-regional trade deficits, principally driven by bilateral imbalances with South Africa. Outside of South Africa, only Namibia and Botswana have developed bi-lateral trade of any significance, while Swaziland and Lesotho hardly feature in any regional trade outside of South Africa.

[5] *World Bank (2013)*

[6] *World Bank (2010)*

[7] *For consistency the value reported by the importing country was taken from Trademap, except for Lesotho and Swaziland where the mirrored value was taken due to lack of 2013 data. Trade between Lesotho and Swaziland was taken from the 2010 Lesotho data.*

Table 1: Intra-SACU trade values for 2012

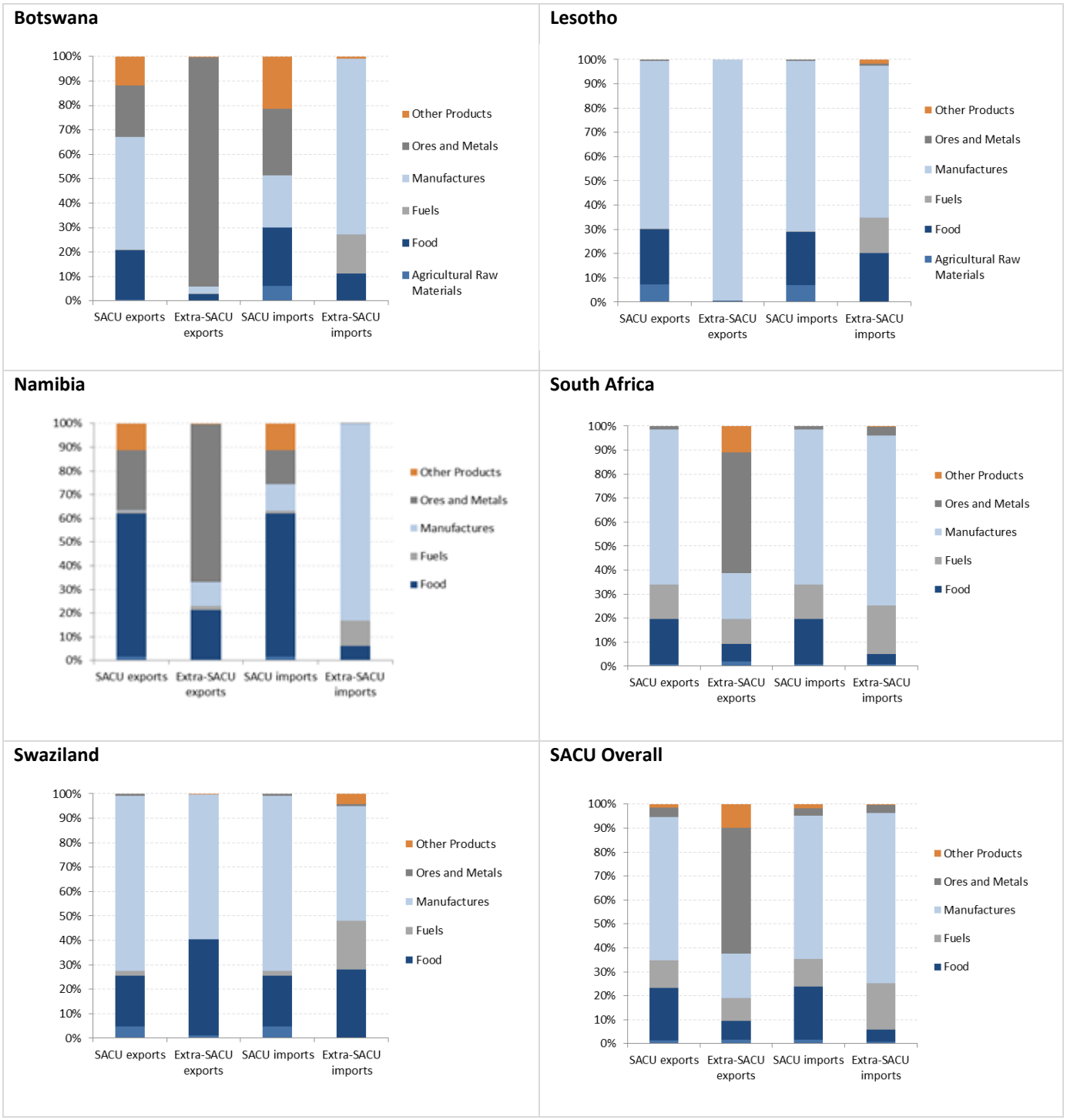
2013 US$ millions		Imports					Total	SACU share of total exports	SA share of SACU trade
		Botswana	Lesotho	Namibia	South Africa	Swazi-land			
Exports	Botswana		1	104	734	1	840	**15**	**93**
	Lesotho	2		0	300	5	306	**47**	**99**
	Namibia	357	2		824	2	1 184	**23**	**91**
	South Africa	5 073	1 606	4 085		1 858	12 621	**13**	--
	Swaziland	6	4	10	1 220		1 239	**73**	**99**
Total		5 437	1 612	4 198	3 078	1 866	16 191	**14**	**97**

Data Source: SACU Trade Statistics; Note: 2013 data unavailable for all countries

The second main point about regional trade is its product and sector nature. Here, we see that trade within SACU differs substantially in terms of sectors and products versus what member countries trade outside the region. This is unsurprising, particularly for those countries that are primarily mining and other commodity exporters. Figure 1 breaks down exports and imports for intra and extra-SACU trade each country by broad industry sector. It shows that intra-SACU is dominated by food and manufactures, with relatively small volumes of commodity trade. But while food trade is significant in agricultural raw materials appears to be relatively limited, suggesting that regional agro-food value chains may not be well developed. And while most countries export mainly manufactured goods in the region, Namibia, notably, is concentrated in food exports with very limited manufacturing exports.

Looking in more detail at the products that are traded within the region, Figure 2 and Figure 3 show that while trade is fairly diverse, the nature of products exports from South Africa to the region differs significant from those exported from the rest of SACU to South Africa. Specifically, outside of mineral fuels (which is the largest export sector), South Africa's exports are dominated by vehicles and machinery and equipment, along with iron and steel. The trade appears to be chiefly 'end-product' sales. For example, a review of the trade data on for motor vehicles (HS 87) shows around 82 percent of trade is concentrated in end-products, with 18 percent (worth around US$ 220 million) in parts and components. The exports from the rest of SACU into South Africa is more eclectic, with soaps and detergents being the single largest category, and cocoa products, iron and steel, and plastics featuring prominently. There is some evidence of higher parts and components exports coming from SACU countries into South Africa, although this still appear to be relatively small.

Figure 1: Trade by broad sector: Intra and Extra SACU (2010) [8]



Data Source: SACU Trade Statistics

[8] Note that diamonds are classified under 'manufacturing' in the official SACU trade statistics; they have been reclassified here under 'ores and metals' to reflect the commodity nature of these exports

Figure 2: South Africa exports to SACU by main HS-2 sectors (2013)

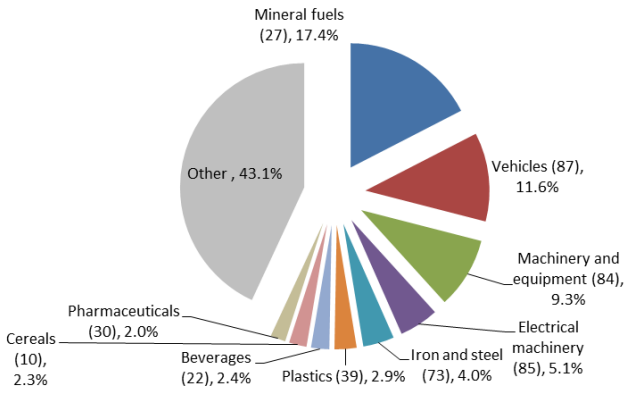
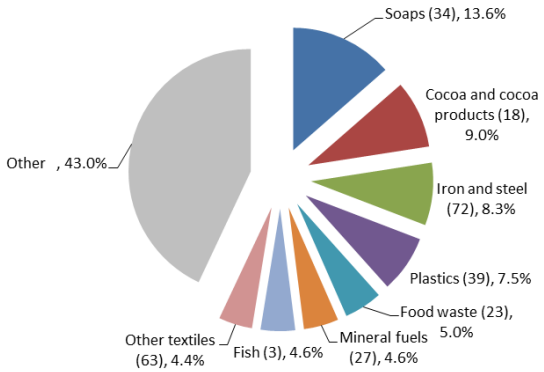


Figure 3: SACU exports to South Africa by main HS-2 sectors (2013)

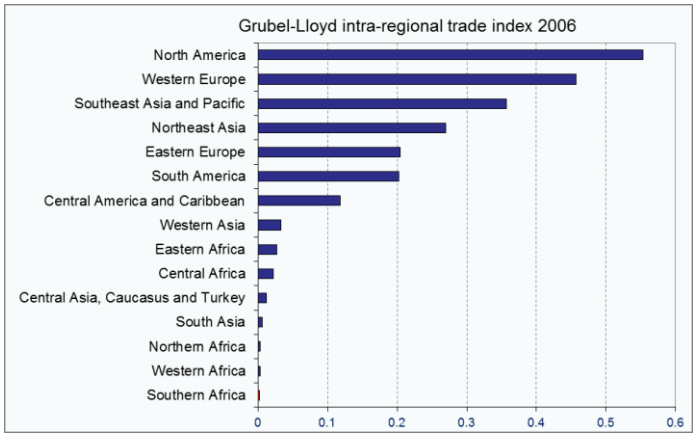


Data Source: SACU Trade Statistics

The integration gap and regional industrial policy

The brief overview of trade statistics outlined above gives an initial indication that integrated regional supply chains are not yet prominent in SACU. While it may be the case that some individual supply chains have developed across the regions, certainly there is no broader 'Factory Southern Africa'. This is also true if one extends the geographical scope to encompass the wider Southern Africa (SADC) region. Indeed, Figure 4, which calculates intra-industry trade (parts and components within the same industry) within regions, shows that production chains in Southern Africa are among the least integrated in the world. This stands in stark contrast to the tightly integrated regional production networks that exist in East Asia, as well as in North America and Western Europe. This is partly explained by the emphasis on commodity exports in the region and the relatively limited complementarity of existing production structures. But even in this context, the level of regional integration of value chains is remarkably low in Southern Africa. Certainly, participating in GVCs would necessitate greater movement of parts, components, and services activities across regional borders. This underscores the importance of deeper and more effective integration arrangements that would enable value chains to operate seamlessly across the region, minimizing transaction costs and lead times. . Moving even some way toward the level of integration in other parts of the world will, therefore, require significant improvements in the regional environment for cross-border trade and investment.

Figure 4: Intra-regional, intra-industry trade index



Source: Brulhart (2008)

In this context, SACU has started work on developing a common industrial policy, which is fundamental to achieving the objectives of deeper regional integration as contained in the 2002 SACU Agreement. A SACU Task Team has been formed to oversee the development of the industrial policy framework. Central to the regional industrial policy is the development of integrated regional value chains (RVCs) that exploit of the comparative advantage of member states, and therefore not only support regional integration but more importantly productivity and competitiveness. Such RVCs may operate fully within SACU, but in most cases they are likely to be linked – upstream, downstream or both – into wider regional (African) and global value chains. It is therefore imperative that the RVCs being considered within the context of the SACU Industrial Policy function well to allow effortless integration into global value chains. And this is a two-way relationship. A recent paper by the Asian Development Bank[9] suggests that regional economic integration within a GVC environment – through logistics, information network and connectivity improvement – can deliver substantial benefits from scale, network, coordination and agglomeration economies, with particularly strong benefits for small economies.

1.2 Objectives and Approach

While across the region there is significant interest integration of RVCs and, more broadly, integrating into GVCs, there remains limited evidence of the extent of current integration. The textile and apparel sector has been documented most[10]. To date, however, limited information is available on value chain development across most sectors in the region. This report is intended to help address that gap by providing a broad overview of global and regional value chain participation in SACU member countries across a number of sectors. Specifically, the report provides case examples of GVC participation and the extent of SACU regional value chain development in 6 broad sectors: automotive; apparel; agro-processing; meat, livestock, and dairy; minerals; and tourism. These six broad sectors cover most of those that are being prioritized within the regional industrial policy. They also provide a balance among industries that are manufacturing-oriented and 'traditional' GVC industries (textiles / clothing and automotive), those linked to the agricultural sector (agro-processing and meat, livestock, and dairy), mining, and services (tourism).

This report compiles sectoral value chain case studies that were carried out as part of parallel work, including the *SACU Regional Trade and Transport Facilitation Assessment*[11] and previous report on

---

[9] Asian Development Bank, 2013. Can Global Value Chains Effectively Serve Regional Economic Development in Asia? ADB Working Paper Series on Regional Economic Integration.

[10] In textiles, see, for example Morris, Mike, Staritz, Cornelia, and Justin Barnes (2011): Value Chain Dynamics, Local Embeddedness, and Upgrading in the Clothing Sectors of Lesotho and Swaziland. In: International Journal of Technological Learning, Innovation and Development; Staritz, Cornelia and Mike Morris (2011) Local Embeddedness, Upgrading, and Skill Development: Global Value Chains and Foreign Direct Investment in Lesotho's Clothing Sector, ILO/IFC Better Work Conference, October 2011, Washington D.C; and in automotive, see for example Barnes, J., Kaplinsky, R. (2000), "Globalisation and the Death of the Local Firm? The Automobile Components Sector in South Africa", Regional Studies, 34(9): 797–812; Barnes, J., Morris, M., (2008). Staying alive in the global automotive industry: what can developing economies learn from South Africa about linking into global automotive value chains? The European Journal of Development Research. 20 (1): 31–55; and Black, A., (2001). Globalisation and restructuring in the South African automotive industry. Journal of International Development, 13 (6): 1-12.

[11] World Bank, 2014a. Regional Trade & Transport Facilitation Assessment for the SACU Region: Trade Facilitation for Competitive Regional Value Chains. Final Report – November, 2014. Washington, DC, World Bank.

Mapping Regional Value Chains in SACU[12]. ***As the two studies were carried out for different purposes and with a different approach, the structure and focus of the outcomes are not fully consistent across sectors presented in this report***. However, in all sectors, the case studies provide an overview of the structure of the value chain and interlinkages across firms in SACU, along with their positioning in wider GVCs. They also provide some discussion of the main constraints impact GVC participation and competitiveness, as well as the constraints to developing more integrated RVCs.

1.3 Structure of This Report

Following this introductory chapter, the remainder of the report is organized in four main sections, as follows:

Section 1: Manufacturing sector

- Chapter 2: Automotive
- Chapter 3: Textile & Apparel

Section 2: Agribusiness sectors

- Chapter 4: Agro-processing, with emphasis on fruit and vegetables
- Chapter 5: Sugar
- Chapter 6: Cereals and milling
- Chapter 7: Beef and livestock
- Chapter 8: Poultry
- Chapter 9: Dairy

Section 3: Minerals and Tourism sectors

- Chapter 10: Precious metals
- Chapter 11: Diamonds
- Chapter 12: Coal
- Chapter 13: Tourism

Section 4: Summary and conclusions

- Chapter 14: Summary of main findings across value chains and implications for policy

[12] *World Bank 2014b.Mapping Regional Value Chains in SACU: Agribusiness, Mining, and Tourism. Final Report (unpublished) – February, 2014. Kaiser Associates Economic Development for World Bank.*

SECTION 1: MANUFACTURING

This section presents an analysis of the most prominent manufacturing sectors in the region: automotive (Chapter 2) and textiles and apparel (Chapter 3). The analysis takes a value chain and supply chain perspective, with a focus on describing the structure of the value chain within SACU as well as the opportunities and constraints both to further integration into GVCs and to deeper integration of RVCs.

2. AUTOMOTIVE

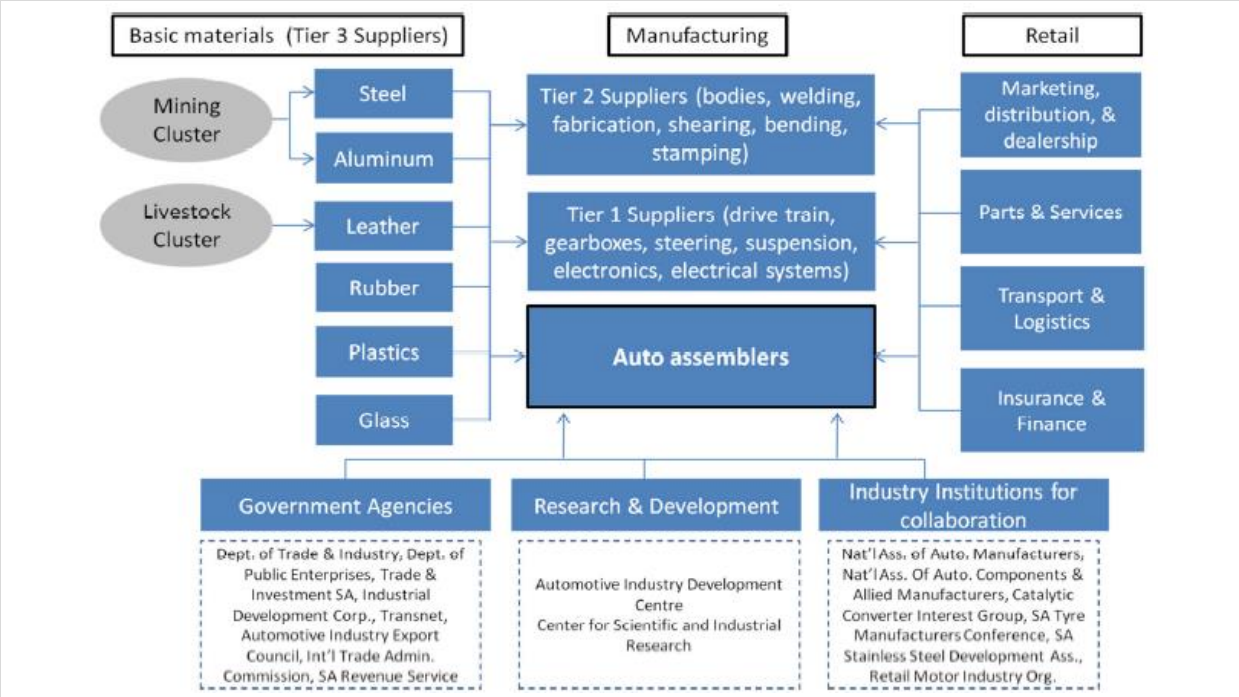
This chapter of the report considers the structure of and dynamics in the automotive GVC. Subsequently, the SACU value chain is unpacked through a review of its structure and role players. We explore the nature of determinants of competitiveness in a global context and draw conclusions regarding the implications of these factors for the development of automotive value chains in SACU countries. Finally, we draw conclusions regarding the mechanisms through which SACU members will be able to become integrated in global value chains, and the extent to which these countries may be able to become and remain competitive in this industry.

2.1 Structure of the Automotive Value Chain in SACU

South Africa

The Global Value Chain approach has as a starting point to divide industries into two categories of firms, namely lead firms (OEMs) and suppliers[13]. Figure 5 provides insight into the various players in the automotive value chain in South Africa.

Figure 5: The automotive value chain / cluster structure

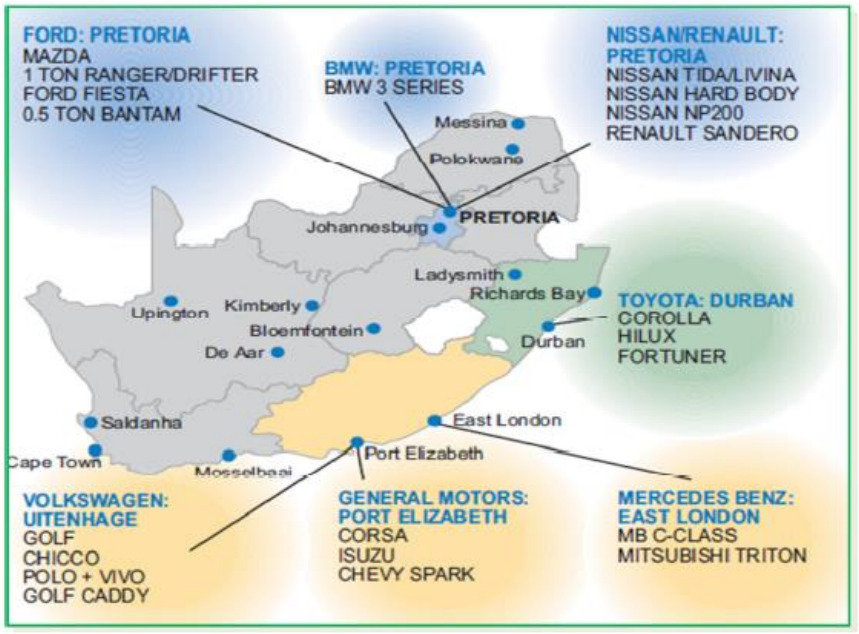


Source: Humphrey & Memedovic, 2003):

A number of global original equipment manufacturers (OEMs) have manufacturing facilities in South Africa: Ford, BMW and Nissan/Renault are located in Pretoria, Gauteng; Volkswagen and General Motors are located in Port Elizabeth; Mercedes Benz in East London, Eastern Cape; and Toyota in Durban, KwaZulu-Natal (Figure 6).

[13] *Sturgeon, T.J., Memedovic, O., Biesebroeck, J.V., Gereffi, G. (2009) "Globalisation of the automotive industry: main features and trends," International Journal of Technological Learning, Innovation and Development, 2 (1 and 2): 7-24*

Figure 6: OEMS' Manufacturing Operations in South Africa



Source: Moore (2012)

Around the long-established OEM operations in South Africa, a fairly extensive local supplier base has developed across South Africa (Table 2).

Table 2: South Africa's automotive supplier base by main province (2010 and 2012)

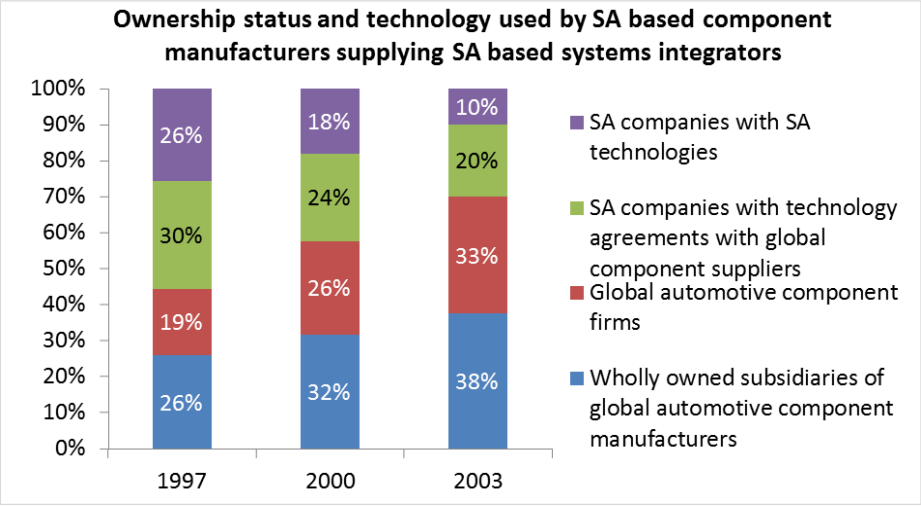
	# of component manufacturers 2010	# of component manufacturers 2012
Gauteng	164	150
Eastern Cape	82	100
KZN	84	80
Western Cape	20	--

Source: Lampbrecht (2011, 2013):

In line with the impacts of global value chain trends of consolidation and expansion into developing markets, foreign ownership of OEMs in South Africa has increased sharply over the 1990 to 2007 period. This trend is also evident in the supplier industry. Local suppliers have increasingly become reliant on the acquisition of a global partner to ensure access to international markets. This process was facilitated by OEMs to ensure sustainability and competitiveness in their supply chain[14]. OEMs in South Africa are increasingly making use of component manufacturers that have joint venture agreements, are wholly-owned subsidiaries of global component manufacturers or are global component manufacturers (Figure 7).While foreign ownership does have distinct advantages such as gaining access to global value chains, and that local subsidiaries form part of the parent company's production strategy, it also means that South African suppliers are increasingly reliant on foreign technology. And lead sourcing arrangements in GVCs make it increasingly difficult for South African suppliers to inform new product development processes.

[14] *Barnes, J., Morris, M., (2008). "Staying alive in the global automotive industry: what can developing economies learn from South Africa about linking into global automotive value chains?" The European Journal of Development Research, 20 (1): 31–55.*

Figure 7: Ownership status and technology used by SA-based component manufacturers supplying SA-based assemblers (n=4) (% of OEM purchase value)



Data source: Barnes and Kaplinsky (2000); Barnes and Morris (2008)

Lesotho

The abovementioned situation certainly has implications, but also opportunities for a fledgling industry in Lesotho. In this country, two seat kit manufacturers are in the process of relocating operations from South Africa for stitched leather products to Maputsoe and Maseru. These are mostly outsourced subsidiaries of Tier 1 suppliers with operations in South Africa. A few issues still remain to establish these facilities with the Tier 1 suppliers investing heavily in training, local suppliers and setting up manufacturing facilities. Lesotho was chosen as a site for relocation due to much lower labor costs (wages of one third or less than South Africa) and stable environment for labor relations (i.e. fewer strikes). In addition, the existing textile industry in this country has developed a capacity in the area of stitching that is currently being transferred to the manufacture of stitched seat kit components.

The central location of Lesotho may provide future opportunities for ensuring that some level of concentration can be achieved in the manufacture of selected components. At present no OEM is located in Lesotho, which implies that opportunities may be limited to manufacture components that are of a more generic, commodity type such as the current leather stitching components, simple harnesses or batteries.

Botswana

Botswana has quite a long history in terms of manufacturing in the automotive industry. However, earlier attempts to establish a number of OEM assembly operations have faltered over time. Since the closure of the Hyundai plant in Gaborone in 2000, nothing remains of earlier OEMs' assembly operations. With a very small domestic market, dependence on imports for inputs to manufacturing, a relatively long distance from ports and limited access to markets, the number of component manufacturers in the automotive industry has also been dwindling.

Through the field work, two operations that have significant manufacturing and export activities have been identified in Gaborone, namely a battery manufacturer as well as a harness manufacturer.

- The harness manufacturer has recently been acquired by a German auto-supplier and the supply contracts secured at present are to German OEMs in South Africa;
- The battery manufacturer has significant manufacturing activity and exports to a number of African countries.

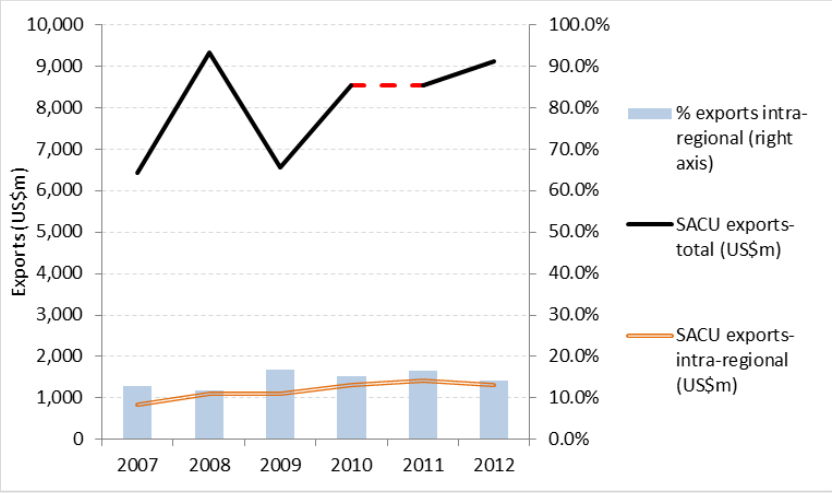
Although an active diversification drive is taking place at present, government support for automotive industry development has been largely reactive, with no specific programs in place to attract automotive investors. Although indications are there for supporting this industry, the major focus is currently on manufacturing of medium technology products such as household appliances to capture rents through the growth of the FMCG markets in African countries. Plans for a Special Economic Zone development may also provide opportunities in future.

2.2 Opportunities and Constraints to Global and Regional Automotive Value Chains

Overview of global and regional trade performance

Figure 8 gives an overview of regional trade performance in the automotive sector (HS 87). As of 2012, total exports from the region reached over US$9 billion, nearing their pre-crisis peak. Intra-regional trade is growing in line with overall trade, and represents around 14 percent of total automotive exports. The vast majority of this intra-regional trade, however, is in end products and not components, indicating relatively limited supply chain integration across SACU countries.

Figure 8: Global and intra-regional automotive exports (HS87): 2007-12



Data Source: SACU Trade Statistics

Global context: determinants of competitiveness in automotive GVCs

Investment in automotive production capacity tends to be concentrated within developing country locations with large markets and high economic growth rates[15]. A number of potential "automotive industry spaces" are available to developing countries to develop their automotive industries, as summarized in Table 3.

[15] *Black, A., Bhanisi, S., (2007). "The SA automotive industry in a globalising world: What has happened to imports? Sector strategies," Trade and Industry Monitor, 38(1): 131-151.*

Table 3: Summary of "Competitive spaces" for developing countries in the global automotive value chain

Category	Country attributes	Example country, Potential future outcome
Big emerging markets (BEMs)	• Large domestic markets • Low vehicle ownership • Dynamic economic growth rates	• These markets have potential to develop large scale integrated industries. • These markets also have the possibility to achieve substantial local ownership. • Some of these markets have their own OEMs • Examples of countries with these attributes are China and India.
Countries on the periphery of large emerging markets (PLEMAs)	• Markets with adjoining developed market areas	• These markets stand to profit from relatively low wages, reasonable technological capabilities and proximity. to markets with high demand • Examples of countries with these attributes are Mexico, Poland, Czech Republic, Hungary and Slovakia.
Regional trading blocs	• Emerging regional markets consisting of countries allied by trade agreements	• Geopolitical and economic organizations such as MERCUSOR[16] and ASEAN[17] align efforts for economic growth, social progress and stability in the region.

Source: Black, A., Bhanisi, S., (2007). "The SA automotive industry in a globalising world: What has happened to imports? Sector strategies," Trade and Industry Monitor, 38(1): 131-151

SACU may be seen to fall in the last category –a regional trading bloc. Although Botswana and Lesotho have very small markets, access to South Africa and its infrastructure for access to other markets may stimulate increased demand for local products from Botswana and Lesotho. As far as competing in global value chains is concerned, the tier and role of the supplier in the value chain implies certain competitiveness competences that they need to exhibit, which has implications for the nature of the products that are manufactured and the key determinants for competitiveness. The following table summarizes key factors for competitiveness as well as strategies that have been implemented by these players to remain competitive in a globalized value chain.

Table 4: Factors and strategies for competitiveness

Supply chain category	Manufacturing	Key factors for competitiveness	Strategies
Assemblers	Car	• Increasing scale • Innovation & design • Global presence • Governance capacity	• Vehicle concept and overall integration • Brand, scale and marketing • Manufacturing excellence and innovation • Supplier-oriented industrial upgrading
Global mega-suppliers.	Systems and Modules	• Global coverage • Global presence – Follow OEMs to new markets ("Follow sourcing") • Design and innovation of modules • Governance capacity	• Integration • Sourcing excellence • Collaboration excellence • Economies of scale and scope • Innovation and design
First-tier suppliers.	Systems and Modules	• Increasing scale • Some global presence	• Integration • Sourcing excellence

[16] *MERCUSOR integrating Brazil, Argentina, Paraguay, Uruguay and Venezuela*

[17] *Association of Southeast Asian Nations (ASEAN) consisting of 10 countries (members including Thailand, Malaysia, Indonesia, Philippines, Singapore etc.)*

		• Innovation & design • Governance capacity	• Collaboration excellence • Economies of scale and scope • Innovation • Design
Second-tier suppliers.	Components	• Process engineering skills • Meet quality requirements • Quality certification	• Parts designs • Manufacture according to specification on time, to cost and quality • Managing complexity
Third-tier suppliers.	Parts	• Rudimentary engineering skills • Compete on price	• Operational excellence (production) • Lower labor costs • Economies of scale

Source: Kaplinsky, R., & Morris, M. (2001). A handbook for value chain research. Retrieved from http://www.prism.uct.ac.za/Papers/VchNov01.pdf

Challenges for South Africa to remain competitive in automotive GVCs

In the context of these global value chain dynamics – in particular the demand for scale economies and the control of the supply chain through lead firms and first tier suppliers – South Africa faces a challenge to maintain its position as a location for automotive GVC investment. Production contracts are awarded based on competitive bidding against other global locations. Competition is fierce and cost pressures that are cascading down the value chain[18] are putting pressure on South Africa to compete for export contracts with low-cost destinations such as China and Thailand. With a waning ability to design, South Africa focuses its competitiveness on its capacity to meet high technical specifications and produce with high quality. But it also increasingly reliant on competing on cost. And in the absence of a large domestic market, South Africa must focus on exporting to achieve the economy of scale necessary to compete.

Dynamics of the industry also have cascading impacts on the possibilities for local suppliers. OEMs are increasingly focusing on cost reductions through economies of scale. This has led many automotive OEMs to reduce the number of models and increase the number of vehicles produced for each model that is manufactured in South Africa. With OEMs and their (mostly global) first tier suppliers dictating terms in the global value chain, they may expand their strong presence in the South African automotive industry and there could be decreasing opportunities for local suppliers to gain access to the value chain[19].

In this context, several trade and transport facilitation issues represents key challenges that need to be addressed for South Africa to gain access to markets and remain competitive in the global automotive value chain – specifically: i) high transport costs and long lead times to Europe; ii) high port charges; and iii) a domestic logistics system that is sub-optimized. At the heart of the challenge is the: i) large distance between South Africa and key end markets (Europe) which impacts both costs and timeliness; and ii) A dispersed domestic production network in South Africa placing stresses on the domestic logistics system.

Box 2: Voices from the field – automotive value chain in South Africa

[18] *Nolan, P., Zhang, J., Liu, C., (2007). "The global business revolution, the cascade effect, and the challenge for firms from developing countries," Cambridge Journal of Economics, 32:29–47.*

[19] *Barnes, J., Morris, M., (2008). "Staying alive in the global automotive industry: what can developing economies learn from South Africa about linking into global automotive value chains?" The European Journal of Development Research, 20 (1): 31–55.*

"*South Africa's biggest issue and bottleneck is the transport infrastructure. The industry activity is spread across a 1500 km radius which means there is no concentration. As there is no real concentration it becomes a logistics issue and a question of how to optimize logistics costs*."

"*With OEMs spread across the country, this means you need suppliers everywhere. Suppliers cannot be everywhere, they cannot be in PE and Durban and therefore need to choose where they set up. This has implications for their cost competitiveness*."

"What really makes us cry is that we need to deal with long order-to-delivery times. It takes about 5-6 weeks' time at sea for components to arrive here from Europe. This means that large inventories have to be kept and sometimes this leads to technology obsolescence"

"Everybody knows about the problems at the ports especially Durban"

The government's policy framework to support competitiveness of the automotive sector – through the Automotive Production and Development Programme (APDP) which replaced the Motor Industry Development Plan (MIDP) in 2012 – remains crucial. This scheme supports industry competitiveness through, amongst other things, production incentives and duty free import credits issues to assemblers on export vehicles[20].

Opportunities and challenges to building regional value chains

Due to the importance of a strong supplier base and the difficulties of surviving in global value chains, OEMs in South Africa have initiated supplier development programs to support competitiveness initiatives and the development of a component manufacturing cluster. Table 5 summarizes the key challenges for the development of a stronger supplier base in the region.

Table 5: Challenges to competitiveness in the SA automotive value chain (source: ASCII, AIDC)

Challenges	Description
Global competition	• Competing with skills in global level • Competing with manufacturing and management standards on a global level • Competing with superior infrastructure in other locations • Competing with locations with fewer social challenges
Supplier capability	• Base operating standards often absent at suppliers especially Tier 2 suppliers • World Class Manufacturing (WCM) not yet implemented at suppliers especially Tier 2 suppliers • Difficult to find appropriately qualified individuals both on shop floor level, artisans as well as engineers • High cost of qualified individuals
Localization	• Materials high cost – lack of competitive advantage • Challenges to introduce new local content in Tier 1 and Tier 2 suppliers – requires investment in product and process technology • Challenges to retain current levels of local content requires investment in product and process technology at a Tier 1 & a Tier 2 level.

In this context, what is the potential for greater development of regional value chains? First, given scale requirements and the lack of existing OEMs or first tier suppliers in BLNS countries, it should be taken as given that OEM investment in these markets is unlikely. Thus, the focus is realistically on

[20]*NAACAM. (2014). The APDP - Summary & Guidelines. Retrieved May 21, 2014, from http://naacamdirectory.webhouse.co.za/pages/32908.*

how to expand the supplier base for the South African Automotive cluster further into SACU markets. In this sense, the opportunities exist, but may be niche in nature. One of the main reasons for this is that OEMs and first tier suppliers are increasingly looking to develop highly localized clusters, where all the main suppliers are virtually co-located with the OEM. This can be seen, for example, at the Automotive Supplier Park Rosslyn in (Gauteng) and at the East London IDZ . In addition, the technical requirements for many component suppliers may, at least in the short term, be too stringent to meet consistently in other BLNS countries, particularly in the absence of strong support and institutions to help suppliers meet increasingly strict global standards. On the other hand, the more labor intensive and less strategic elements of the value chain are precisely those that are seen to be less critical for co-location, and thus open to extension into relatively proximate locations where labor cost advantages can be exploited.

In an environment where competitiveness for BLNS suppliers is dependent on final delivered cost and predictability of supply, trade facilitation issues make a significant difference to competitiveness. Evidence from field interviews indicates that while transport costs matter, for most production that is currently being considered in BLNS countries, cost savings from labor is adequate to create a buffer for higher transport costs. The more important factor is predictability. BLNS factories are seen as essentially equivalent to factories located in local clusters around the OEM, and are expected to be able to deliver orders directly into the manufacturing process on a regular basis. Delays caused by border inconsistencies represents the most serious threat to the sustainability of this model, as it would force BLNS suppliers and their OEM customers in South Africa to hold larger stocks of inventory, undermining the cost benefits of the model.

Box 3: Voices from the field - automotive value chain in Lesotho

"*There are really great opportunities in Lesotho, however there are some issues setting up here, ask our Logistics manager, we have to set up all the suppliers. For instance, there were not even pallets – we sorted it out very quickly but those are just some of the barriers you face when you set up in a new location. Possibly something that only a global company can afford to do*"

"*One of the key issues in Lesotho is the control at the borders. Getting products through the border especially at the end of the financial year is a problem.*"

Some key facts on the automotive value chain in Lesotho:

- Operations are highly input and transport intensive; part and components account for up to 75% of total costs, with transport the second most important factor (approximately 15%)
- Most materials for the seat kits (fabric and leather) are sourced not from South Africa but Europe and delivered through Port Elizabeth (due to congestion at Durban port); this means producers in Lesotho remain reliant not just on the South African network but also on access to global markets.

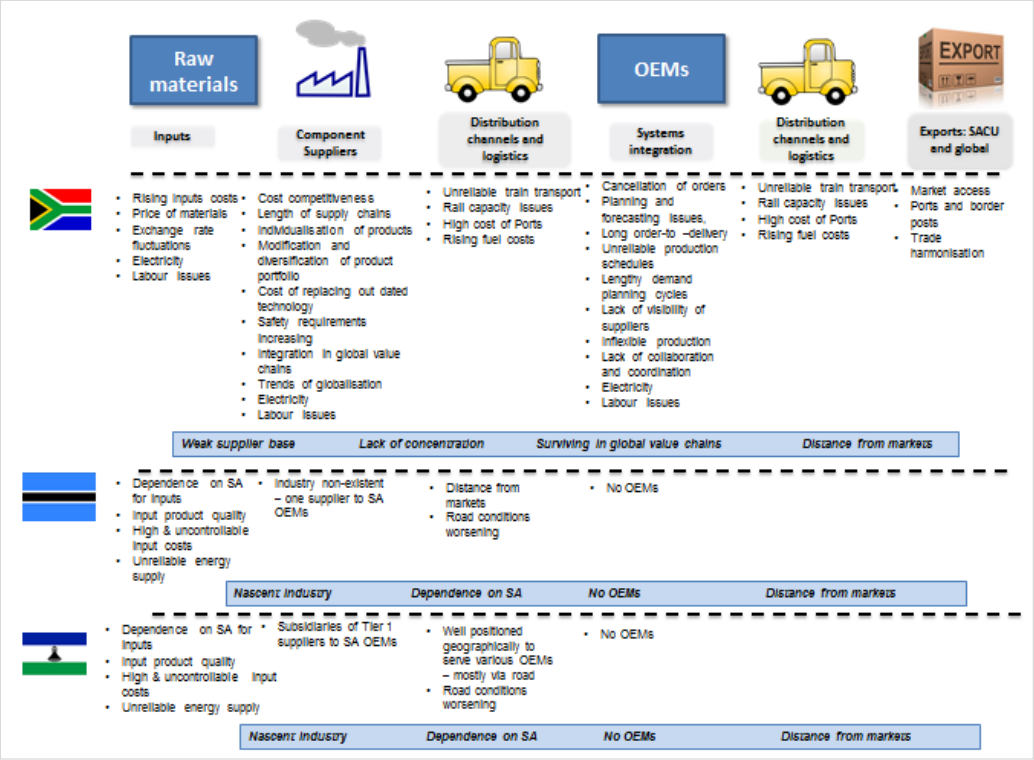
Summary of the challenges to regional value chain competitiveness

Results from the research and interviews highlight the following main challenges to competitiveness, both from a global competitiveness perspective, and from the perspective of building regional value chains – these issues are also illustrated in :

- Challenges to remain cost competitive due to rising input costs such as materials, labor and electricity;
- Challenges to deal with expensive labor through increased productivity of the work force and to deal with workforce instability;
- Challenges to comply with global production and quality standards and to drive continuous improvement in manufacturing capabilities;

- Challenges to deal with infrastructure that is under pressure or unreliable, e.g. ports that are congested, train transport that is slow and unreliable;
- Challenges to ensure a strong supplier base as far as competence and capability is concerned;
- Challenges to address trade harmonization - here issues such as tax, roadworthiness, and disparities in supporting infrastructure such as ICT were considered problematic;
- Logistics operations are often affected by the industry's lack of cooperation and communication, which contributes to sub-optimal supply chain management and also affects in-bound and out-bound operations;
- From the disjointed nature of the region in terms of engaging in the development discourse, it is evident that there is little or no development of joint policies for the development of cross-border value chains.

Figure 9: Challenges in developing competitive automotive value chains in South Africa, Botswana and Lesotho



Sources: Authors; Naude, M. J. (2013). "Supply chain challenges in the South African Automotive Sector: Do location, size and age matter?," South African Journal of Economic and Management Sciences, 16(4), 407–417.

2.3 Summary of Trade-Related challenges

As discussed in the previous section, SACU-based automotive value chains are facing increasing challenges of maintaining competitiveness in an ever-more demanding global environment. Many factors underlie the competitiveness challenge. The most binding constraints for the region relate to maintaining cost competitiveness and responding to the cost challenge by trying to build higher quality, more value-adding local suppliers. In context, trade and transport facilitation does not represent the most binding challenge facing the industry; but it does have a significant impact on the potential for South Africa to compete as a location for OEM investment in the global automotive value chain, and for other BLNS countries to integrate into these value chains.

Table 7 on the overleaf provides a summary of a number of key constraints to regional value chain integration based on the findings from the study of the automotive industry in SACU. Table 6 highlights those specific (broad) trade facilitation-related issues that have been identified as priorities to be addressed to support value chain integration in SACU's automotive industry. As discussed previously, this include a combination of:

1. ***Factors to enable South African OEMs to compete in the global automotive value chain***: Here, in particular are issues focused on reducing transport costs (and to a lesser degree time) in connecting to global markets, including reducing port congestion, improving access of the industry to more cost competitive and efficient rail services, and promoting more localized clustering of suppliers to reduce logistics complexity; and
2. ***Factors to unlock the potential of extending (non-core, in the short term) inputs into BLNS markets***: Here it includes support for improving quality standards; development of logistics and other support services sectors in BLNS; lack of predictable border procedures; and higher transport and carrying costs.

Table 6: Overview of key trade-related themes emerging from the assessment of SACU automotive value chains

Category	Themes uncovered
Institutions and regulations for trade	• Weak institutions and very little government support to comply to standards of OEMs and / or Multi-nationals • Weak supporting institutions for e.g. technical assistance
Services to the industry to facilitate trade	• Automotive industry priority for SA government – industry associations and government support for facilitation exists but is small • Consider support and development of private sector capacity for shared services: functions e.g. logistics, trucking operations performance, customs brokers, railway services, finance, banking and insurance
Customs facilitation	• Very few issues encountered with customs clearance by larger companies, but smaller suppliers face greater challenges • The industry effectively makes use of SARS technology systems to streamline trade through EDI and pre-clearance • Isolated instances encountered with systems being offline due to electricity or slow updating of databases to reflect payment
Trade facilitation	• Very few issues with procedures (permits, licenses), payment systems and exchange control, but concerns over lack of harmonization of procedures across border and over time; customs and other border agencies • In BLNS, the trade facilitation teams are small with limited budgets forcing them to operate reactively to industry development issues • BLNS firms face cashflow challenges related to VAT in South Africa
International connectivity	• Long distances, time at sea is 5-6 weeks one-way to Europe, congestion at ports has impact on length of the supply chain
Trade-supporting infrastructure	• Roads, ports congested. Railroad slow, electricity not secure, technology capacity sometimes still being developed
Trade logistics costs	• For OEM's trade logistics mostly small costs for total cost of producing product– quite competitive industry due to good local and international companies operating in this space; foreign participation in logistics well represented and ensures a competitive environment • But smaller suppliers and especially those in BLNS markets face higher relative costs and less competitive local services • Relatively high transport costs in BLNS linked to imbalanced loads

Table 7: Areas for attention to drive regional value chain integration, based on findings from the automotive industry

Category	Description of typical opportunities for integration[21]	Examples of priorities to improve development of regional value chains in SACU
At the border	• Liberalize the movement of production factors (capital, labor, intermediate goods and services) • Develop cross-border production networks. • Service liberalization. • Financial and monetary cooperation • Reforms to support diffusion of knowledge and information	• Requirement for harmonizing VAT - SARS VAT issues – BLNS countries not harmonized with SA - different levels of VAT raised and issues with claiming it back; • Customs at borders not managed centrally – creates unpredictability and potential for corruption; • Different technological systems and processes used across border e.g. EDI on SA side and paper based on Botswana side; • Different treatment of distributors that are registered VAT payers to SARS – preferred suppliers – not treated as such in other SACU countries; • Liberalization of production factors: No easy flow of labor between countries • Public infrastructure*:* Congested ports; slow rail services; limited access to road and ports by small-scale, non-commodity users. Telecommunication services to be improved – offline sometimes; • Cross-border production network weak and Botswana and Lesotho nascent automotive industries; • Knowledge sharing and information could be improved to communicate opportunities to industry – especially SA industry about opportunities in Lesotho. There is also space for supporting SACU countries in terms of research to better understand their position in negotiations regarding tariffs and trade. Improved understanding is required how they must negotiate their position in the WTO.
Behind the border	• Involve mutual recognition agreements on technical standards and business procedures, • Regional trade agreements, and • Logistics and transport facilitation initiatives.	• Solid tools and institutions to measure and assess logistics performance; • Institutions and regulations: Trade harmonization required in terms of transport agreements, regulation of transport services, trade finance system to be strengthened • Regulation of transport and logistics services: Support for meeting standards and certification of logistics providers to comply with MNEs, increasing scale of logistics providers to be supported, Technology widely implemented as mechanism for regulation • Trade facilitation initiatives: Tax harmonization required; strengthening trade and logistics authorities, sharing data on trade and logistics through SA export manual, e-Government for streamlining processes – EDI at SARS, capacity to analyze and monitor data / indicators
Between the border	• Address the underlying causes of the high cost and unpredictability of infrastructure, particularly transport services and power (transport, input factors, energy)	• Logistic infrastructure poses limitations to industry (Rail, Port, Roads) • Not all weigh bridges are operated on same principles • Length of trucks not assessed in same way • Hazardous material not effectively handled e.g. lack of places to stop at the border between Botswana and SA • Road worthiness not treated in same way across SACU countries e.g. lights • Energy problems in terms of cost and reliability of supply

[21] *Source: Santi, E., Romdhane, S.B., Shaw, W. (2012). Unlocking North Africa 's Potential through Regional Integration, African Development Bank. ISBN 978-9973-071-89-7.*

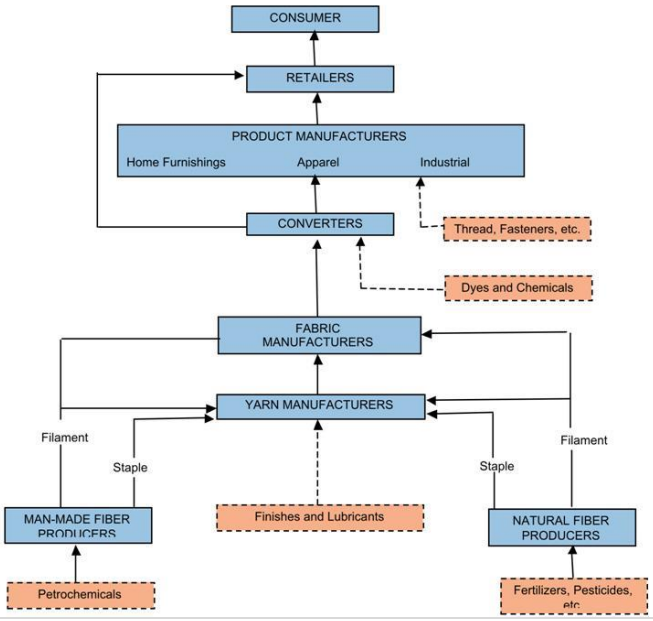
3. TEXTILES AND APPAREL

The textile industry in SACU has most of the raw materials and processes in place for a full value chain, such as fibers, yarns, fabrics, dyeing/finishing and make-up (industrial, household and apparel manufacturing). It is however severely limited/restricted in range/variety and volumes/capacities (raw materials to finished product) to be deemed a long term, viable, and sustainable value chain. The South Africa industry, since 2000, has been decimated by more competitive imports, in particular from East Asia[22].

3.1 Structure of the Textile and Apparel Value Chain in SACU

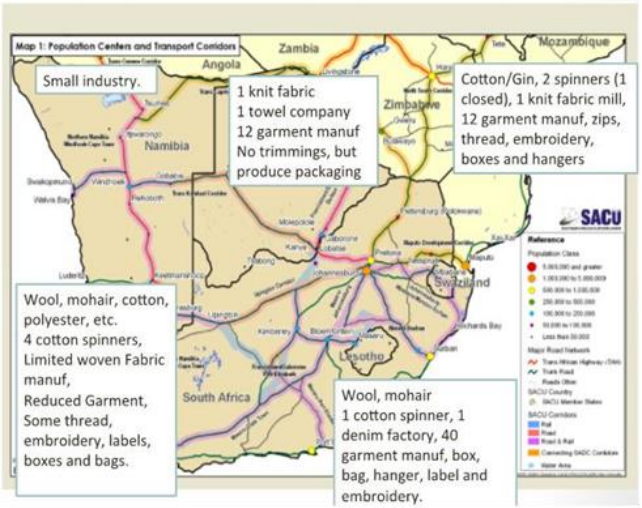
The textile cluster is complex as illustrated in the value chain diagram depicted in Figure 10 and the subsequent analysis of each component part.

Figure 10: Overview of the Textile and Apparel Value Chain



Source: Authors

Figure 11:Map of the SACU Textile and Apparel Sector



Following is a brief description of each main segment of the textile and apparel value chain, with a description of its current structure across SACU countries (as illustrated in Figure 11):

Fibers: The main natural fibers such as cotton, wool and mohair are found in SACU, mainly in South Africa with some production in Namibia and Lesotho taking place, but processed in South Africa (small volumes of cotton in Swaziland being the exception). South Africa still produces synthetic fibers such as polyester staple, but today is geared mostly to the non-wovens sector rather than the spinning industry.

Non-Wovens: Production of non-wovens for carpeting, underlay, blankets, technical/industrial and medical end-use is one sector of the industry, which is not that prone to imports and has by and large survived and

[22] *It is argued that considerable proportion of this is in "illegal" (undervalued) imports*

in some cases grown. These processes are essentially taking place in South Africa and are largely capital intensive.

Spinning: With the exception of one spinning mill in Swaziland (technology now relatively old) and one in Lesotho (fairly modern), the balance of spinning takes place in South Africa by just a handful of companies. Whilst the spinning of cotton and blend yarns is its biggest sector, the bulk of its raw materials (cotton and polyester) are being imported for variety, quality, availability and price reasons, with cotton from Zimbabwe and Zambia in particular playing a role. The production of 100 percent synthetic yarns (polyester, wool, mohair, linen and acrylic) is limited.

Weaving: There are three key categories of fabrics that play a role in downstream value adding. They are household, industrial, and apparel fabrics. There are effectively no household textile (bed linen) fabric mills left. Massive imports from Pakistan of these fabrics and finished products put paid to this sector[23]. The only survivors have been toweling mills, three in South Africa and one in Botswana, the latter owning one of the mills in South Africa. Quality, variety and speed to market/timely delivery appear to have assured their survival[24]. Industrial/technical textile weavers appear to have held their own. This is also a market not that prone to imports. In terms of apparel fabric weavers, there are today less than a dozen mills left (a number with small capacities) in SACU, with only one 100 percent apparel (denim) weaver in Lesotho, the balance in South Africa. The remaining apparel fabric mills in South Africa have by and large reduced their "apparel" fabric volumes to no more than 30 to 35 percent of their capacity, the balance being geared to industrial/technical and specialty fabrics.

Knitting: While this sector of the textile industry has shrunk to a mere 50 percent of its late 1990/early 2000s capacity[25], it appears to be surviving based essentially on speed to market. In part, this has to do with the fact that, unlike its woven apparel fabric counterparts, this sector is more vertically integrated (knit, dye/print and make garments). The fabric knitting industry is concentrated in South Africa with just one company in Swaziland and one in Botswana (both vertical – fabric to garment) and are dependent on the South Africa market.

Household Textiles: Botswana has three household textile (bed linen, duvet, etc) manufacturers, relying on fabrics imported from East Asia, India, and Pakistan, with sales by and large restricted to Botswana and neighboring countries, but little to South Africa[26]. It, however, also has a toweling mill (weaving/dyeing and towel manufacturing), with by far the majority of its output sold to South Africa. It had plans to expand in Botswana, but eventually gave this up due to problems in obtaining permits for expatriates, along with other issues. Instead, it bought a toweling mill in South Africa, which was much closer to its end market and vastly reduced transport costs. Whilst there is a small bed linen manufacturer in Namibia (relying on local tenders), it uses fabrics from East Asia. Swaziland does not have a bed linen manufacturing base. The South Africa manufacturers today rely extensively on fabrics imported from East Asia/India/Pakistan. In terms of other household textiles, there are three toweling mills and a couple of blanket manufacturers, a number of which are Turkish owned.

---

[23] Whereas the industry used to have woven fabric mills capable of producing some 40 to 60 million^2 per annum, this has in most cases been reduced to some 10 to 15 million m^2, with many not running at capacity.

[24] This sector is capital intensive. Even the labor intensive hemming of towels is now mechanized.

[25] There used to be a number of companies with a capacity of 500 MT per month (today just one), with most of the largest boasting a capacity of not more than 200 MT per month.

[26] Duvets, pillows, etc., are bulky items, incurring high transport costs.

Industrial Textiles: This essentially consists of tarps, tents, awnings, umbrellas, filtration media, ropes, twines and back packs for example. These manufacturers have to some extent survived based on markets in Africa (South African Defence Force contracts, tented camps in game parks, refugee/disaster camps, outdoor activities etc). There are two industrial product manufacturers in Botswana (umbrellas and tarps/tents), none in Swaziland, none of note in Namibia and a vast array of manufacturers in South Africa, a number of which are niche (e.g. outdoor camping, outdoor awnings, filtration media).

Apparel:

- **Swaziland** has around a dozen commercial[27] garment manufacturers, of which two to three are exclusively geared to the US Market under AGOA[28], with another two to three that apart from the South Africa market also export to the US (up to 2009 the vast majority were US geared). The balance only supply the South Africa market, the majority on a cut-make-trim (CMT)[29] basis.
- **Namibia** has only a few companies employing more than 50 people, the balance being small companies. The largest, employing 400 people closed their doors early in 2014, unable to pay salaries and workers compensation funds. They were, as subcontractor (South Africa company outsourcing), reliant on just one client. This was also the only company supplying the South Africa market.
- In **Botswana** only a dozen commercial garment manufacturers remain with a few reliant on the SACU trade deal and local government tenders and incentives for survival. Productivity, high costs of transport (very little if any back-haul) and expatriate work permit issues have made the garment industry no longer competitive, unless geared to local tender work. There are a few companies that export 100 percent to South Africa, with just one company that supplies the US market.
- **Lesotho** has some 45 garment manufacturers, fairly evenly split between large and very large Taiwanese/Chinese manufacturers geared to the US market and South Africa owned manufacturers that cater for the South Africa market, driven by wages and unions to relocate activities. The number of these companies is set to increase as more industrial land and factory shells become available.
- In **South Africa**, the garment industry is a shadow of its former self, as imports have since the early 2000s captured some 50 percent of the market. The industry has become increasingly reliant on CMT operations that are dependent on sourcing houses supplying the retail chains. Little if any of its output targets other countries in SACU. Exports are limited.

3.2 Opportunities and Constraints to Global and Regional Textile and Apparel Value Chains

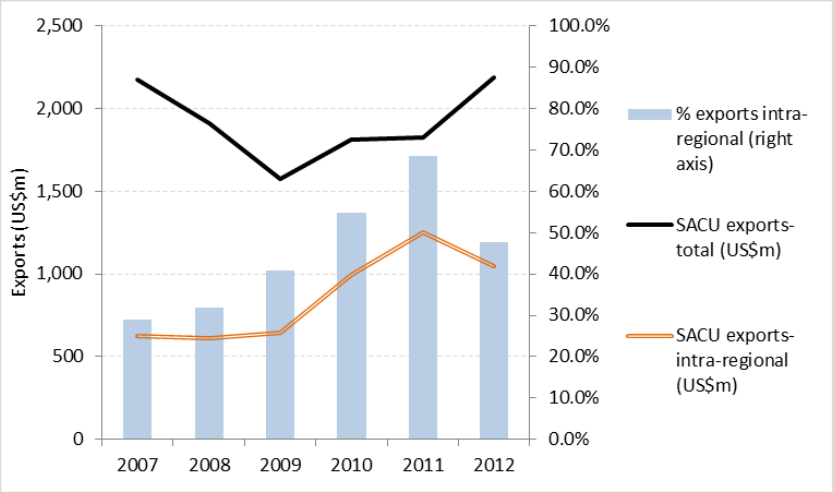
Overview of global and regional trade performance

Figure 12 gives an overview of regional trade performance in the textile, apparel, and footwear sectors (covering all HS sections from 50-67). As of 2012, total exports from the region were over US$2 billion, having recovered to their pre-crisis levels. Intra-regional trade has grown rapidly, particularly in the apparel segment of the sector, as exports from the region shifted from external markets (principally the US) to South Africa. While the post-crisis recovery of global markets has somewhat lessened the importance of

[27] Companies employing in excess of 100 people that have been set up for mass production purposes.
[28] However, the US government recently announced that Swaziland would lose its AGOA preferential access at the end of 2014. Of its approximately 17,300 textiles and apparel industry employees it could then see 45% of its employees lose their jobs.
[29] Cut, Make and Trim as opposed to Full Package where the garment manufacturer sources fabrics and trim for its own account.

the regional market in the past two years, the shift appears to be structural, indicating increasing regional integration of textile and apparel value chains.

Figure 12: Global and intra-regional textile, apparel, footwear exports (HS60-67): 2007-12



Data Source: SACU Trade Statistics

Global context: determinants of competitiveness in global textile and apparel value chains

On a global scale, **wages** in China[30] are increasing rapidly, potentially making the SACU region more competitive as a location for global export production. However, South Africa, which is key to establishing the link to global value chains, faces challenges to competitiveness in labor-intensive sectors like apparel. In comparison to the other SACU countries, labor wages in South Africa are high (US$300 per month, compared to US$100 to US$120 per month in BLNS). Moreover, labor unions in South Africa that have made it increasing difficult to hire and fire and will not allow for piece work production rates to improve productivity. As a result, **productivity rates** are much lower in South Africa (and in the SACU region more widely) than in competitor locations like China – for example while an average for T-shirt production in Africa is 35 units per worker per day (highest recorded was 60), this can be as high as 95 units in China.

There are, however, other determinants of competitiveness, such as **speed to market and improved/updated technologies** that can make a difference in the textile and apparel value chain. This is in part where South Africa's competitiveness programs (led by Department for Trade and Industry and the Industrial Development Corporation) have had some success in turning around some parts of the sector. Exchange rates also play a major role, as seen in 2002 when South Africa exports of garments under AGOA surged. While the current exchange rate again favors exports, few companies in South Africa are taking advantage, having burned their fingers in the mid-2000s, when the exchange rate stabilized again at a much lower rate. For those geared to exports (Lesotho and to lesser extent Swaziland, and even less so Botswana), primarily to the US, exports appear to be picking up again, although hesitantly so as the AGOA extension and third country fabric provision have not yet been ratified beyond September 2015. Transport costs are also a competitive issue and for Botswana a major deterrent to competitiveness.

The other key competitiveness issue, as alluded to earlier is the limited availability, **range and variety of fabrics in the region**, in particular for woven apparel. This was amply demonstrated by large protective

[30] *This is as of April 2014, between $225 and $290 per month. This is $150 per month in Bangladesh*

wear manufacturer in BLNS catering exclusively to the South Africa market. Whilst they would have a preference to source locally (in SACU), they lamented the fact that the textile mills producing fabrics for these garments just did not have the volumes available, as they were booked-out by local companies supplying government tenders. Pricing is also a deterrent in many cases as South Africa fabric suppliers often parity price (with imports) but then without the range and variety, let alone availability of these fabrics. And given the huge reduction in the South African textiles sector over the years, it is becoming increasingly difficult for the industry to re-establish competitiveness and it has lost the ability to take advantage of economies of scale, a key factor to be competitive in the global textile industry.

The lack of availability of fabrics regionally is compounded by the **22 percent duty on imported fabrics** is a serious inhibitor to competitiveness for the SACU garment industry targeting the single major market, South Africa. Reliance on imported fabric then also decreases the ability of garment manufacturers to take advantage of speed to market, especially for the fashion industry where orders are relatively small, but frequent.

In the context of these challenges, maintaining global competitiveness for SACU (and especially South Africa) based firms requires upgrading their production capabilities. Great strides[31] have thus far been made by Cluster Initiatives (Western Cape and Kwa-Zulu Natal) between 2006 and 2012, backed further by DTI/IDC Production Incentive (PI) and Clothing & Textiles Competitive Improvement Programme (CTCIP) since 2010. Whilst it has had positive impact on the larger formal (Bargaining Council compliant) companies, it has unfortunately excluded the now very large number of non-compliant manufacturers (mostly rural based Chinese/Taiwanese manufacturers) and informal sector CMT companies. The challenge is now to extend these incentives and cluster initiatives to the non-bargaining council approved manufacturers, with the intent of these companies becoming compliant. Ideally, these incentives and initiatives should also be extended to the manufacturers in the SACU region, rather than South Africa based companies only.

Whilst the introduction of Government procurement policies (local fabrics and garment manufacturing to be used) is a short term measure to improve local production volumes, it is not sustainable without the aforementioned initiatives.

Opportunities and challenges to building regional value chains

The continuing pressure on South Africa based producers to lower production costs combined with the growing scale of the regional retail market is creating greater opportunities for the development of integrated regional value chains in SACU. Yet realizing these opportunities remains fraught with difficulties, as illustrated in the examples in Box 4.

As discussed above, the lack of fabric availability (range, variety and capacity and price) is the key stumbling block for greater value chain integration in SACU, as it undermines both opportunities for cost competitiveness and speed / flexibility. For Lesotho, this may be alleviated by a South Africa based fabric knitter setting up commission knitting and dyeing facilities. The knit garment manufacturers in Lesotho,

[31] B&M Analysts who ran the cluster programmes to increase world class manufacturing practices and upgrade production capabilities (Retail, textile, clothing and union involvement), have between 2006 and 2012 seen reductions of 28% in average work in progress inventories, a reduction of 34% in finished goods inventories, a 50% improvement in quality and a 30% improvement in rapid style changeovers – Mike Morris, Justin Barnes, May 2014 – Challenges to reversing the decline of the Apparel industry in South Africa.

targeting the South Africa market would thus have the opportunity to source fabrics locally (vastly reduced transports costs) and not have to pay the fabric duties for garments targeted at the South Africa market. For those targeting the US market, they will for the foreseeable future rely on fabrics from East Asia (produced mostly by their parent companies), in particular for the variety of fabrics needed.

Without a more substantial and diversified yarn and fabric industry in SACU, there is very little potential for greater integration. An area that could have potential would be trims and accessories. However, many of the products, where the market warrants it, have already seen manufacturers set up operations (zips in Swaziland, hangers in Lesotho and Swaziland, cardboard box manufacturing in Lesotho, Swaziland and Botswana). Sewing threads may still be an option, but is well served by suppliers in South Africa, from Cape Town, Durban and Johannesburg.

Box 4: Examples of the challenges of building regional value chains in SACU

A Taiwanese fabric knitter in Swaziland sourcing some of its yarns from a Taiwanese spinner in Lesotho, but not from a South Africa owned spinner on its doorsteps in Swaziland (despite that fact that quality, range of yarns, and price was not the issue).

In another instance, a jeans manufacturer in Botswana supplying a leading South Africa retail chain will not use the only denim mill in Lesotho as supplier, as the production is not of sufficient quality and the order quantities from the manufacturer not conducive for the mill to produce these. The denim fabrics needed for this company will thus continue to be supplied from East Asia and India. For another jeans manufacturer in Swaziland (parent company in East Asia), supplying mainly the US but also a lower end market retailer in South Africa, price was the barrier to using the regional supplier.

Beyond issues with access to fabric, three other issues have been barriers to the development of value chain activities in BLNS countries. The first is skills at the technical and middle management levels. Skills shortages are, however, slowly but steadily being addressed through training and promotion of local employees that have shown the aptitude to take on more responsibility. Some companies have now managed to reduce expatriate staff to just one or two key positions. The higher wages demanded by expatriates from the East (rapidly rising wages) over the last two years in particular is in a way forcing the industry to train more locals in to managerial/technical positions. This is promising going forward as it transfers the skills capital to these countries in SACU and reduces the wage bill.

The second issue is access to finance at competitive rates. Few banks in SACU are prepared to finance the textile and apparel industry at rates that are affordable to borrowers, having previously seen many of their loans to the industry go bad. The third issue is transport cost and flexibility.

3.3 Summary of Trade-Related Challenges

To summarize the main findings in this chapter, competitiveness of the SACU textile and apparel value chain is dependent on three main factors:

- *Availability of regional fabric supply*, with scale, variety and competitive pricing – this would allow regional firms in downstream apparel sectors not only access to cost effective inputs but greater speed and flexibility.
- *Upgrading capacity of local firms*, including adopting new production techniques and technology – this would allow regional firms to improve quality and productivity to offset relative competitiveness weaknesses stemming from relatively high labor costs.
- *Speed and flexibility to market*, linked to both of the above but also to the transport and logistics environment – this would allow regional firms to compete on a non-price basis and move to higher value-added activities in the chain.

One of the main reasons South Africa retailers have turned to suppliers in SADC, in particular Madagascar, Mauritius and Tanzania, are the vertical/semi-vertical status of their industry, that allows them under two-stage transformation to import garments duty free. Their integrated status allows for the much vaunted "speed to market". Whereas for Madagascar and Tanzania price also plays a role (lower wages), for Mauritius it is their ability to produce more value-add/fashion garments. The importance of these issues can be seen when ranking the importance in key factors of inputs and importance buyers attach to them, namely cost of product, quality of product, ranked equally important to speed and reliability of delivery. For buyers/retailers of finished products, flexibility of orders size and terms of payment need to be added.

This is where trade and transport facilitation issues come to the fore. In terms of **availability of transport**, this is an issue for Lesotho (and other BLNS manufacturers). While rail and road links between South Africa, Lesotho and Swaziland are by and large well in hand and transport services are broadly available (Lesotho alone, there are more than 8 transport companies offering their road haulage services between Durban, Port Elizabeth and Lesotho), the issue in Lesotho is container availability. In Lesotho, for example, there is only one shipping company that has a container terminal in the country. Similarly transit time is also an issue for some of the Lesotho companies in terms of inputs (raw materials – fabrics), in particular the rail facilities between Lesotho and Port Elizabeth could be improved, in particular the need to use Bloemfontein as transit point and the depot in Maseru. The Mascom container unloading terminal in Maseru is, according to some, not managed well (lack of fuel for operating equipment, frequent breakdowns of unloading cranes/equipment etc).

Customs is not seen to be a significant barrier, although some concerns were raised over unpredictability and around operating hours. Whilst several interviewees lamented the knowledge (training) of customs border post officials, it is generally accepted that border posts are running considerably better than three to four years ago. Manufacturers would like to see more customs officials available at the Maseru border post or when loading containers as well as more inspectors as they are seen to arrive late or at closing time especially on Fridays. The ability of Customs to continue operations over one of the weekend days would, they believe, be of help, in particular when a truck is stopped for inspection on a Friday afternoon and then have to wait until Monday for it to be cleared. The increase in number of customs truck inspections requested nearing their financial year end appears to be a minor nuisance and have taken this in their stride. It is seen as temporary in nature.

Greater communication is required between manufacturers/freight forwarders/truckers regarding the number of containers or truck loads arriving on any given day for loading or unloading. This is at times more than the manufacturers can handle. Whilst efforts have been made to improve communication between the parties, it is still a too frequent occurrence.

This leaves **transport costs** as the major challenge facing the industry. Unless, what exporters/importers refer to as a shipping "cartel" at South African ports can be broken or made more competitive, these costs will remain high.. For Botswana the issue has remained for some time the lack of back haul for transport companies, thus making transport a cost competitiveness disincentive that it is not going to disappear in the short to medium term. Where possible however, some of the companies are sharing container load requirements, as is the case for the textile mills in Francistown.

Finally, the key trade-related issue that is impeding the competitiveness of the supply chain in the SACU region is the **duties levied on the textile sector** of the industry (22% on fabrics). Whilst it may be argued that without these duties, the remainder of the textile industry would shrink dramatically (it is already a shadow of its former self), the introduction of Government procurement policy has seen a number of the

textile companies retain adequate volumes as many already rely on these fabric volumes to keep head above water. They have with few exceptions already become more geared to the key fabrics in question (on the apparel front cotton and polycotton drills and twills for workwear, uniforms as well wool and wool blends and polyester fabrics for the defense force uniforms – camouflage and formal - and in terms of industrial/technical fabrics for tents, tarps etc). The DTI/IDC competitiveness incentives could then also be utilized to improve and modernize existing textile technologies/processing techniques.

It may thus become necessary for the growth of SACU based companies to see the duties on woven apparel fabrics removed or substantially reduced. The impact on the existing textile mills, based in part on the experiences from the Swaziland and Lesotho based manufacturers, should be minimal as they will continue supplying fabrics to South Africa garment manufacturers geared to government tenders.

SECTION 2: AGRIBUSINESS

This section presents an analysis of agricultural-related value chains in the SACU region. It is separated into six short chapters:

- Chapter 4: General overview of Agro-processing, with emphasis on Fruit and Vegetables
- Chapter 5: Sugar
- Chapter 6: Cereals and Milling
- Chapter 7: Beef and Livestock
- Chapter 8: Poultry
- Chapter 9: Dairy

Note that the chapters in this section were compiled from different initial sources, which were developed with different scope and objectives. As a result, the focus, structure, and level of detail provided in the individual chapters will differ considerably.

4. AGRO-PROCESSING

This chapter presents key findings of the analysis of the agro-processing industry value chain in SACU. It comments on the structure of the SACU agro-processing value chain in terms of relative production and export dynamics, channel integration and channel dominance. Deep regional integration in agro-processing supply chains is to a large extent determined by the imbalances between the dominant South African agro-processing sector, and the sectors of other SACU members. Sector imbalances are reflected in the relative ability to compete.

Challenges to value chain integration are briefly summarized, with a focus on relevant trade-related factors. During the field work, current industry growth strategies as well as supply chain challenges were explored. These were used as a basis for understanding the opportunities for value chain integration. It is argued that macro-level focus areas need to be addressed in order to create an environment for value chain integration, and examples of *at the border*, *beyond the border* and *between border* opportunities for integration are outlined.

4.1 Structure of the Agro-Processing Value Chain in SACU

Agro-processing is widely defined as the value-addition to any agricultural product, and includes divisions such as wood, textiles, paper, beverages and food[32]. South African producers dominate the regional agro-processing industry. The food division of the SACU agro-processing value chain is the focus of this study. Value-addition in this division traditionally includes further processing, such as (for example) preservation, packaging and taste improvement through addition or mixing of ingredients[33]. Major subdivisions include grain, dairy, meat, sugar as well as fruit and vegetables. This chapter provides a general overview, with an emphasis on fruits and vegetables.

A key characteristic of the Southern African regional agro-processing industry is the imbalance in the production capacity of the various SACU members, with South Africa significantly dominating production. The production capacity of the other members is primarily inhibited by climatic conditions. Competitiveness is further constrained by an underdeveloped input sector, and an underdeveloped ability to compete given the low local demand conditions. In contrast to this, South Africa has a wide spectrum of climatic regions that allow for varied production, better access to input factors, a more sophisticated logistics industry and a competitive environment that is stimulated by a significantly larger local market demand.

The Fruit and Vegetable division reflects the above imbalances. South Africa produces more than 90 percent of its own demand for fruit and vegetables, with imports being utilized to smooth seasonal variations in production. Vegetables are mostly locally consumed, with only 3 percent being exported. More than 50 percent of fruit is exported. Less than 20 percent is distributed via fresh produce markets, while 30-40 percent of fruit is processed. In the case of the other SACU members, the majority of fruit and

---

[32]DAFF (2012). Economic profile of the agro-processing industries in South Africa: 1970-2010, Pretoria: Department of Agriculture, Forestry and Fisheries - Directorate Agro-processing Support.

[33]Richards, R. (2011). The importance of improved EU market access for South African agro-industry, Trade Negotiations Insights, 10(4). International Center for Trade and International Development. Available online at http://ictsd.org/i/news/tni/108575/ [accessed March 2014].

vegetables are imported. Namibia imports 65 percent of demand, mostly from South Africa. Swaziland imports the majority of its demand, from both South Africa and Mozambique[34].

Cross-border activities in agro-processing reflect the import and export dynamics outlined above, i.e. the major flow consists of packaged goods from South Africa to the point of consumption in the lower demand countries. Large South African retailers dominate regional supply chains, and largely dictate the dynamics in the industry. Other SACU members respond to South African dominance by protection of their local industries. Protective mechanisms include non-tariff trade barriers, such as border closures.

Examples of truly integrated regional supply chains are limited. In retail-dominated chains, retailers take advantage of South African productive capacity, as well as of the inability of regional members to fulfil local demand, to export into neighboring markets. In isolated cases, processors are in a position to utilize the relative competitive advantages offered by the region and position themselves for delivery into export markets. For example, a large South-African food processor with processing facilities in Swaziland relocated production of specific products to Swaziland in order to take advantage of the lower cost of sugar. Other region-wide supply chains include grape production in Namibia by South African-owned producers, which is exported through Cape Town. In this case, the producer took advantage of the specific productive capacity of the region, and combined this with its existing fruit portfolio to access international markets.

4.2 Opportunities and Constraints to Global and Regional Agro-Processing Value Chains

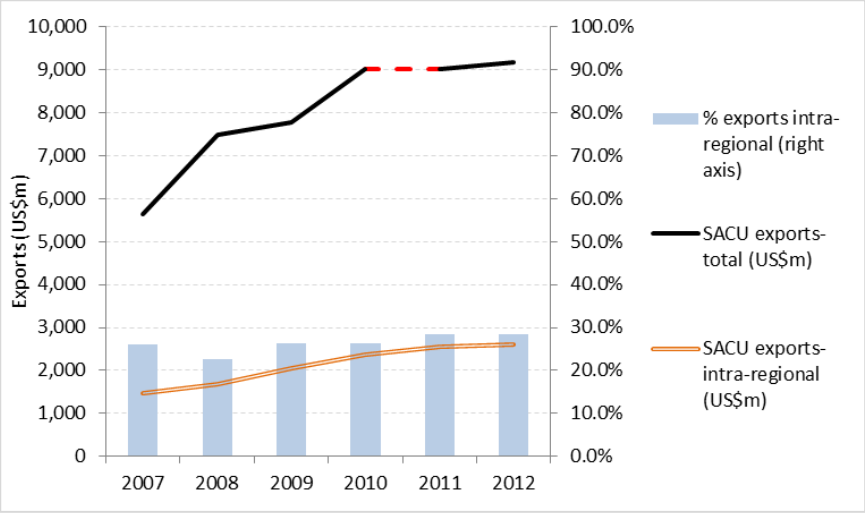
Overview of global and regional trade performance

Figure 13 gives an overview of regional trade performance in the agroprocessing sector (covering all HS sections 04-15 and 17-24[35]). As of 2012, total exports from the region were over US$9 billion, having growing at more than 10 percent annually (in nominal US$ terms) since 2007. Intra-regional trade has grown slightly from around 26 to 28 percent of total exports.

[34] Barrientos, S and Visser, M. (2012). "Capturing the gains: South African horticulture: opportunities and challenges for economic and social upgrading in value chains," Working paper 12. ISBN: 978-1-907247-88-0; Emongor, R. (2008). "Namibia: trends in growth of modern retail and wholesale chains and related agribusiness," Regoverning Markets Policy Brief 8, University of Pretoria; Rubio, N. (2012). Food Processing Ingredients Market Report. USDA GAIN Foreign Agricultural Service report. Retrieved from http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Food%20Processing%20Ingredients_Pretoria_South%20Africa%20-%20Republic%20of_11-7-2012.pdf; Harcourt, D. (2011). The South African Food Processing Industry, Pretoria: Embassy of the Kingdom of the Netherlands. Retrieved from http://southafrica.nlembassy.org/binaries/content/assets/postenweb/z/zuid_afrika/netherlands-embassy-in-pretoria/import/the_embassy/economic-affairs/the-sa-food-processing-industry.pdf

[35] Excludes live animals and meat preparations, as these are covered under the discussion of the beef value chain in Chapter 7.

Figure 13: Global and intra-regional agroprocessing exports (HS04-15 and 17-24): 2007-12



Data Source: SACU Trade Statistics; Note: data on overall exports for 2011 problematic, so has been excluded here

Global context: determinants of competitiveness in global agro-processing value chains

Fieldwork identified a number of factors that describe the comparative advantage and relative competitiveness of the various SACU members. These factors highlight the relative regional imbalances, but also serve to define the factors that affect global competitiveness. Determinants are summarized below, based on the framework of Porter's Diamond of National Advantage[36]. This analysis provides an indication of constraints to growth:

Table 8: Determinants of competitiveness in agro-processing

	NAMIBIA	SWAZILAND	SOUTH AFRICA
FACTOR CONDITIONS	× Small productive capacity × Input factors imported at high cost × Some inputs not available × High transport costs × Climate constrains production	× Scarce: land, water, labor × High energy and transport costs × Depends on SA for energy ✓ Relatively low labor costs ✓ Good quality local sugar, cheap ✓ Potential to expand production capacity ✓ Local production of input factors supports competitive advantage	× Limited access to high quality raw materials for inputs (canning) × High cost of local inputs × Labor problems × Insufficient logistics infrastructure
RELATED AND SUPPORTING INDUSTRIES	× Limited local production of input factors × Limited logistics infrastructure (rail, ports)	× Limited local production of inputs × Limited logistics infrastructure (ports and rail) × Government and politics: perceptions and compliance	× Limited local production of some input factors (cans) ✓ Relatively sophisticated logistics industry
DEMAND CONDITIONS	× Relatively small local demand × Small demand in LSM 7-10 × Distance to SACU markets relative to competitors × Economies of scale difficult × Vulnerable to changes in SA	× Exposed to dumping in South African market × European consumer preferences change and influence ✓ Good proximity to Gauteng market ✓ Preferential access to European	× Competition from low-cost imports × Accreditation required for market access × Europe duty-free access to SA markets × No standardization in

[36] *Porter, M.E. (1990). Competitive Advantage of Nations, New York: Free Press.*

	trade environment	markets ✓ Benefit from niche expert markets (fruit & veg processing)	Africa, outside SACU ✓ Large domestic market
FIRM STRATEGY, STRUCTURE AND RIVALRY	× Competition from low-cost imports × South African retailers dictate and dominate	× Large integrated South African firms dominate × Competitive environment regulated by quotas × Competition from low-cost imports × Competition in international market from low-cost processors	× Competition in international market from low-cost processors (China) × Competition from duty-free imports outside SACU (Mozambique)

Source: Authors

Concluding from the analysis above, the two main constraints to competitiveness in Namibia and Swaziland are efficient access to low-cost input factors, as well as weak demand conditions. Logistics infrastructure and high logistics costs further constrain growth, although they are not the primary factors. Dominant constraints for South Africa include low-cost competition in international markets, and factors that constrain expansion into African markets (labelling requirements, etc). Exposure to a larger local market allows South African firms the opportunity to develop a more sophisticated capacity to compete.

These relative regional competitiveness factors also influence the global competitiveness of the region. Main regional advantages relative to international markets include the ability to deliver during off-season in the northern hemisphere, and the opportunity to develop products for niche markets. Disadvantages include quality and cost of input factors, exposure to exchange rate fluctuations, insufficient logistics infrastructure and the high cost of complying with international food supply chain standards. A further major impediment is competition from low cost producers and processors in the international market.

Opportunities and challenges to building regional value chains

According to Santi et al[37], shallow regional integration is facilitated by exchange at the border and coordination of national policies, while deep regional integration is facilitated by commitments to liberalize the services market, improvements in trade facilitation and the investment climate, financial and labor market reforms and harmonization of standards. Fieldwork confirmed that integration within SACU is constrained at both these levels. The key driver that prevents deep regional integration exists at a macro-economic level, namely the dominance of South Africa as a producer of agro-processing products, and the protectionist response by other SACU members. The following factors play a role:

- **Imbalance** between productive capacities, and **protectionist strategies** of non-South African members;
- **Low local demand and weak competitive environments** of non-South African members, leading to poor ability to compete with South African producers and participate in value chains;
- Lack of relative competitive advantage (specifically **factor conditions**) of non-South African members, resulting in limited incentives to distribute value chain elements across the region;
- Underdevelopment of the capacity to identify and compete in niche markets (**information failures**).

Fieldwork indicated that these macro-level factors are **exacerbated by poor infrastructure across the region, supply chain inefficiencies, and lack of structures to support industry growth** and development

[37] *Santi, E., Romdhane, S.B., Shaw, W. (2012). Unlocking North Africa 's Potential through Regional Integration, African Development Bank. ISBN 978-9973-071-89-7.*

from an integrative, regional perspective. Specific industry challenges to growth, as well as supply chain challenges, are discussed in the sections that follow.

Unlocking opportunities for value chain integration requires a long-term focus. It is dependent on development of conditions that enable industry growth, and on removing supply chain inefficiencies. The aim is to enable attractiveness of less sophisticated member states, in order to facilitate investment in regional chains. Using a framework[38] that identifies opportunities for deeper regional economic integration at three levels – *at the border*, *behind the border* and *between borders* – Table 9 summarizes the main opportunities and opportunities for regional value chain integration identified in the field surveys.

Table 9: Opportunities for deeper regional value chain integration in SACU agro-processing

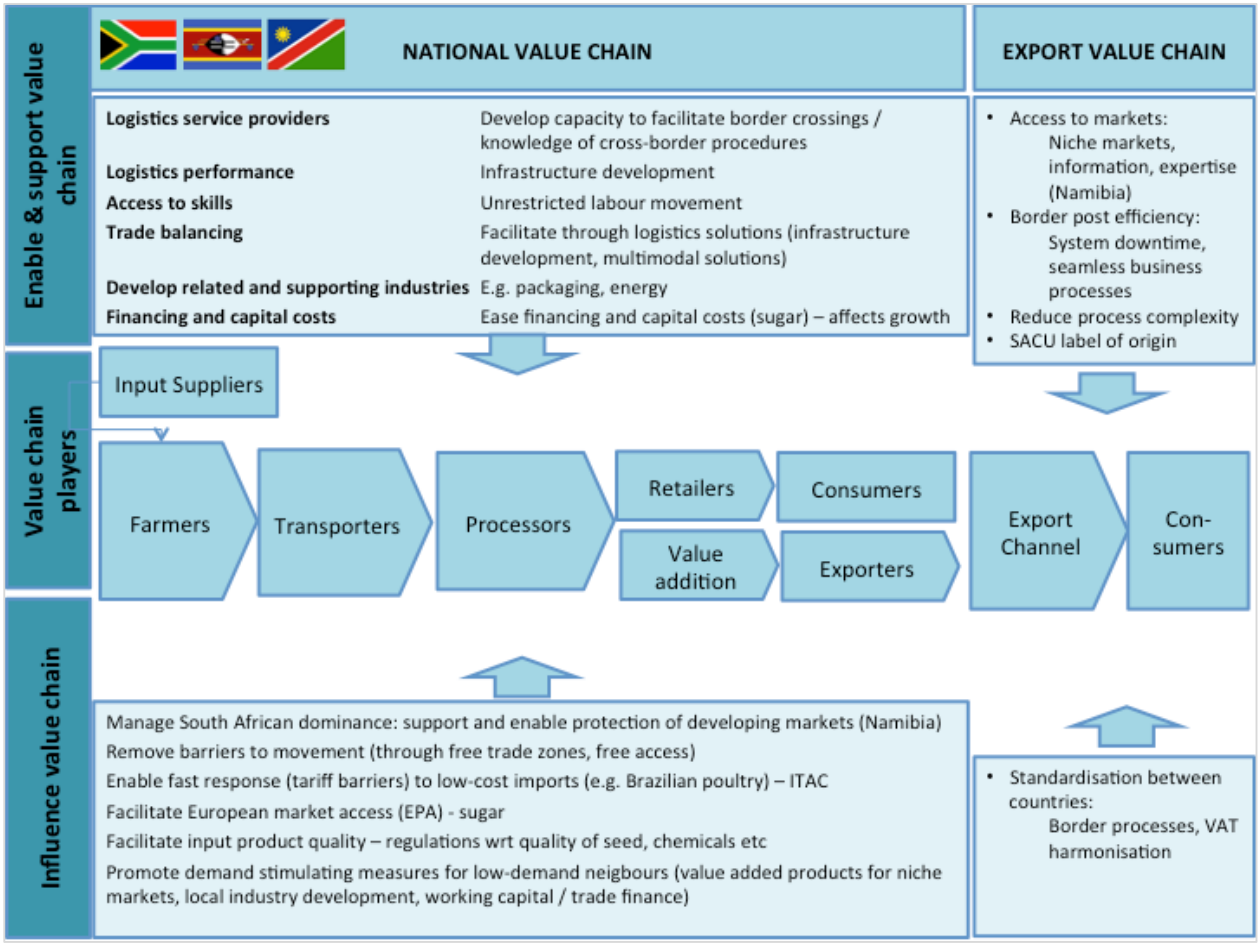
	TYPICAL OPPORTUNITIES	EXAMPLES FOR SACU AGRO-PROCESSING
AT THE BORDER	Liberalization of movement of production factors (labor, capital, intermediate goods and services)	Free movement of labor Easier access to development capital from South African banks Harmonization of VAT and customs processes
	Development of cross-border production networks	Identification of opportunities for the development of niche markets, for unique regional production capacities
BEHIND THE BORDER	Agreements on technical standards and business procedures	Region-wide standards for agricultural chemicals Labelling standards; SACU label of origin
	Logistics and transportation facilitation initiatives	Infrastructure investment Logistics solutions: reduce cost and improve efficiency
BETWEEN BORDERS	Address causes of high cost and unpredictable infrastructure (transport, energy)	Inefficient logistics services (rail, ports)

In summary: from an industry growth perspective, current industry focus areas to increase volume include expansion and enablement of small farmer productive capacity, reduction of delivered cost of products, market expansion and protection as well as development of new distribution channels. Strategies to increase value are focused on industry protection, and development of value-added products through industry enablement, niche market development and service differentiation.

Priorities for industry development are summarized below. They include enablement and support of value chains through development of logistics service providers, access to skills, trade balancing, development of related and supporting industries and reduction of financing and capital costs. Further priorities include improvement of market access, border post efficiencies, reduction of process complexities and standardization. Influencing the value chain relates to managing South African dominance, facilitation of market access and quick response to dumping. Participants in the fieldwork were asked to identify the key issues that they considered important to resolve in order to enable the effectiveness of their supply chains. The issues that were put forward cover a wide range of aspects, and serve as a baseline from which supply chain improvements and industry development priorities could be identified. These are summarized below, against a value chain framework:

[38] *Santi, E., Romdhane, S.B., Shaw, W. (2012). Unlocking North Africa 's Potential through Regional Integration, African Development Bank. ISBN 978-9973-071-89-7.*

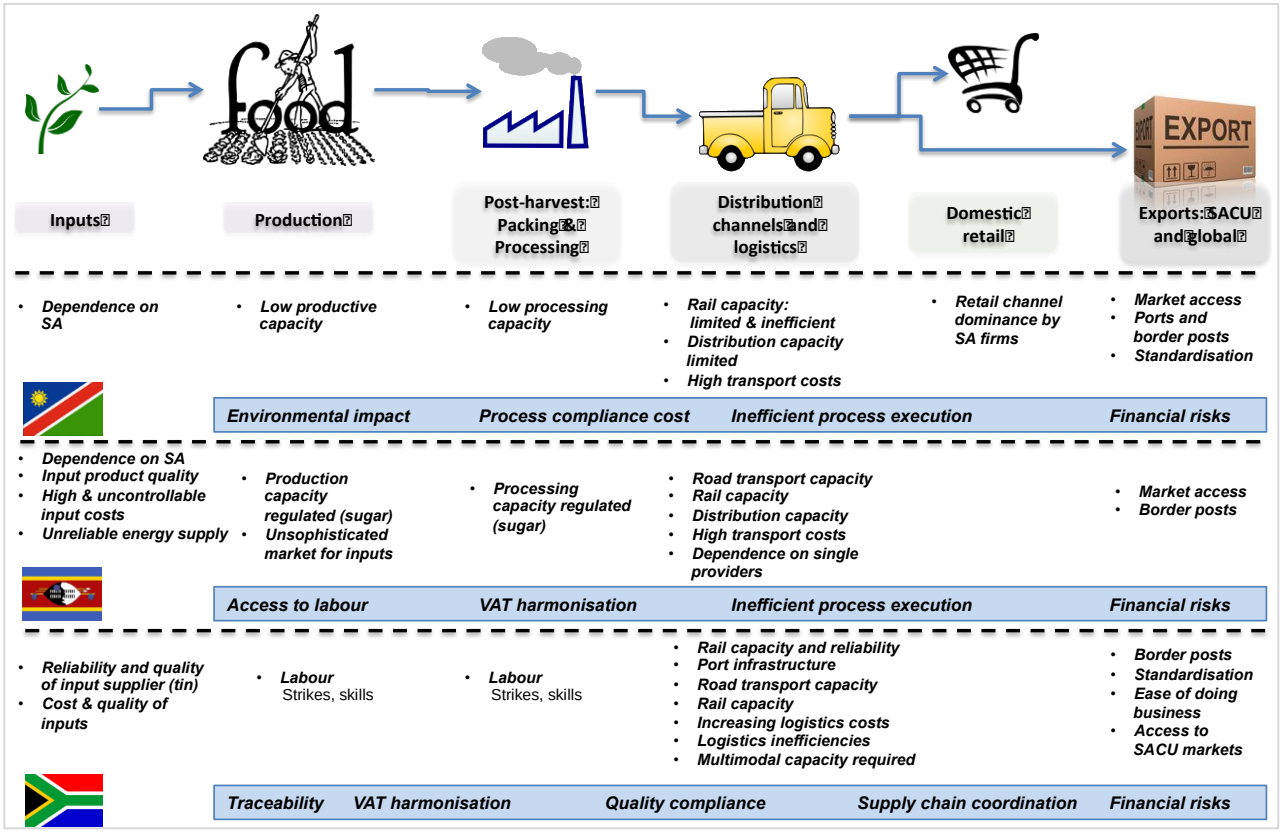
Figure 14: Priorities for SACU Agro-processing industry development



Source: Authors

The nature of the product as well as the nature of the industry dictate the nature and format of agro-processing supply chains. This has implications for the level of supply chain development that is required in order to enable access to high value and high volume markets respectively, and influences the extent to which regional supply chains can be integrated. The supply chain challenges are summarized in the graphic below. Challenges in the various member countries reflect the production and demand imbalances as outlined above, as well as the resulting influences on market access. Common challenges include access to input factors, as well as cost and quality of input factors. Logistics remain a challenge in all member countries, and play out in inefficiencies and costs. Inefficient execution of border post processes as well as lack of harmonization of VAT systems are specific challenges associated with trade across borders (see Section 4.3).

Figure 15: Summary of agro-processing value chain challenges across SACU



Source: Authors

Firms are investing actively in the mitigation of the above challenges. This increases supply chain costs and reduces competitiveness. Based on the above analysis, as well as on discussions with participants in fieldwork, a number of priority areas have been identified for further investigation. These are listed in Table 10, prioritized according to scope and potential improvement that can result from intervention:

Table 10: Priority interventions for develop competitive regional value chains in agro-processing

FOCUS AREA	WHY?	LOGISTICS FOCUS / IMPLICATION	ANECDOTAL EVIDENCE OF IMPORTANCE
Enable fast response to cheap imports	• Loss of sales	• Flow of commodity • Logistics infrastructure utilisation	• Agreements for sugar tariffs already more than one year in process – loss of income!
Harmonisation of VAT systems	• Affects cash flow • Affects competitiveness of goods relative to SA goods • Delays trucks at border – affects service quality to retailers • Quick win!	• Seamless business process – reduce paperwork • Seamless vehicle movement • No delays; fleet optimisation	• Examples of R5m and R18m worth of VAT not paid back over 3 month period – large implication for small enterprise
Optimise access to inputs • packaging material ✓ Namibia, SA • energy ✓ Swaziland	• Reduce exposure to exchange rate fluctuations • Improve quality of product • Improve availability in less developed value chains • Reduce production downtime	• Reduces food miles in developing supply chains – produce closer to utilisation • Reduce logistics costs	• Packaging material approximately 35% of input costs • Energy 16-20% of input costs (sugar)
Stimulate demand and balance trade	• Creates volume and value for developing chains • Enable logistics access	• Logistics solutions to enable trip balancing (multi-modalism?)	
Improved customs processes	• Delays in ports, at borders • Affects customer service	• Flow of goods • Logistics cost	• Estimated to reduce logistics cost by 20%
Standardisation of labelling	• Market access for value-added products	Labelling can be managed by logistics service providers (?)	• No SA market access for Swazi ethanol

Source: Authors

Future strategies to improve the performance of agro processing supply chains should include:

Infrastructure investment

- Investment in improved road and rail infrastructure

Reduction of process inefficiencies

- Transparency and accessibility of processes run by state-owned enterprises
- Skills development

Reduction of logistics costs

- Improved process efficiencies to reduce logistics costs
- Innovative logistics solutions to reduce costs of delivering into rural areas (demand pooling, multi-modalism)
- Development of alternative logistics channels to reduce distances to international markets

Support for standardization

- Support structures to establish regional standardization of export processes, labelling requirements, input product standards (agricultural chemicals)

Market development support

- Regional capacity to assist with niche market identification, feasibility analysis and access

Harmonization: VAT systems, border processes

- Reduce inconsistencies, improve transparency
- Standardize processes across SACU members
- Improve visibility of process requirements
- Seamless integration of electronic systems

These focus areas will improve supply chain efficiencies, thus allowing improved regional competitiveness and participation in global value chains. Also, it will allow for better regional value chain integration.

4.3 Summary of Trade-Related Challenges

Competitive pressures on regional agro-processors relate to competition from low cost producers and processors in the international market, compliance with international quality standards and traceability requirements, as well as regional dumping by low-cost international producers. Cost-effective production and delivery is constrained by access to low-cost input factors of sufficient quality, as well as by underdeveloped logistics infrastructure, high logistics cost and inefficient border processes.

Responses to the above challenges include investment by private companies to make supply chains work beyond what should happen in efficient systems. This includes increasing investment in human resources and infrastructure, with the aim of reducing costs by buffering inefficiencies in government procedures. Other responses include development of niche markets for high-value products. Several priority themes with respect to trade processes are outlined in Table 11.

Table 11: Main challenges to regional value chain integration in agro-processing from a trade perspective

Category	Themes uncovered
Institutions and regulations for trade	• No support for SACU and SADC-wide standardization in agro processing (labelling standards; agricultural chemicals; compliance with international quality standards) • Slow response with respect to dumping by international producers: SACU-wide response driven by South Africa, with adverse effects for BLNS countries who are vulnerable to the knock-on effects of dumping in South Africa (sugar, poultry)
Services to the industry to facilitate trade	• Support required for BLNS producers for identification, assessment and development of high-value international niche markets. This is especially relevant for small producers.
Customs facilitation	• Cumbersome customs clearance procedures and systems downtime lead to delays at border posts, which affects service quality of processors of agricultural products (missed delivery slots at retailers). • VAT reclaim procedures have significant cash flow impacts for smaller players (especially in agro processing, where many small producers exist). • Customs processes are not harmonized, processes are inconsistently executed and processes are not accessible to producers. This leads to incorrect documentation at border posts, and inconsistent costs being charged for similar loads (implications: delays, service quality, mistrust)
Trade facilitation	• Lack of trade harmonization, systems being offline (esp. VAT) – also customs facilitation
International connectivity	• Limited access to reliable logistics infrastructure (port and rail infrastructure specifically) lengthens the international supply chain and affects cost and service quality to international markets. • Long distances; time at sea is 5-6 weeks one-way to Europe; congestion at ports has impact on length of the supply chain; limited port options for landlocked countries; underdeveloped corridors (e.g. through port of Walvis Bay)

Trade-supporting infrastructure	• Roads, ports congested. Railroad slow, electricity not secure, connectivity limiting (cell phone networks). • Business processes in support of trade is slow and inefficient (customs, VAT reclaim), and reduces the ability to compete cost-effectively in international markets
Trade logistic costs	• The cost of servicing remote areas (for both input and output of agro processing products) is high in low-demand markets • Port inefficiencies increases cost • Limited intermodal solutions increase inefficiencies and costs

Institutions and regulations for trade

- Support for standardization: labelling requirements differ within SACU and SADC, and places additional costs on producers due to inconsistencies
- Producers of alcoholic products are reluctant to include more than one origin on their label, which complicates access to South African markets for Swazi ethanol producers

Services to the industry to facilitate trade

- Small producers (e.g. Namibia fruit and vegetables) are at a disadvantage due to limited factors of production. Expansion into international markets are most likely to be profitable in high-value niche markets. However, this requires industry-wide support, for which there is limited national capacity.

Customs facilitation

- Inconsistencies in VAT reclaim processes have led to as much as R5 million that has not been repaid to a small sugar processor over an extended period of time. This has a significant impact on the cash flow of small producers, and hence on the cost of doing business and on competitiveness

Trade facilitation

- VAT systems that are offline at border posts lead to significant delays. Trucks of a Swazi-based food processor have been delayed from Friday afternoon until Tuesday morning, leading to missed delivery slots at retailers and hence at reduced service quality

International connectivity

- Namibian fruit producers are exploring the option of exporting through the port of Walvis Bay, due to the length of supply chain that is added by exporting through the port of Cape Town. This alternative channel is expected to reduce time to markets in East Asia by 1 week. However, this is done as a pilot project, since export of fruit via this channel has not been done as standard practice, and cold chain management at the port has not been tested.

Trade-supporting infrastructure

- Cell phone networks in e.g. Swaziland is limited, leading to South African producers losing all visibility of trucks once they cross the border. This complicates the ability to trace loads, to deliver support and to plan movements.
- Business processes in support of trade are slow: e.g. a Namibian logistics service provider estimates costs associated with exports could be reduced by 20 percent, with improved port customs efficiency.

Trade logistics costs

- Delivery to and from remote areas is expensive, due to low demand
- More loads enter than exit low volume producer countries (e.g. Swaziland), leading to an imbalance in demand for logistics capacity. Intermodal solutions and facilities for load consolidation could be explored to alleviate this.

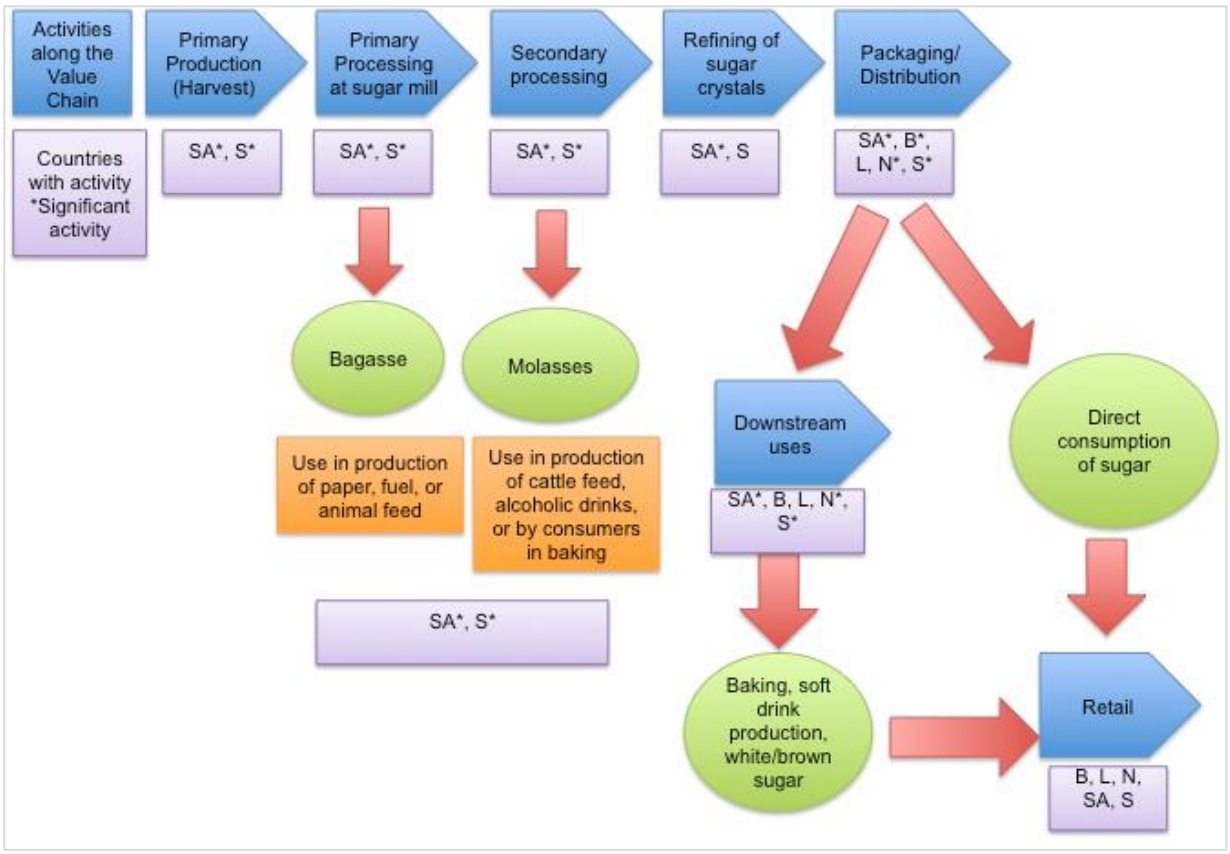
5. SUGAR

5.1 Structure of the Sugar Value Chain in SACU

Sugar value chain structure[8]

The sugar value chain (Figure 16) begins with the agricultural inputs, which include sugar cane stems, fertilizer, pesticide, land, labour, and farming equipment. Primary production activities include the sowing of seeds, watering, and harvesting. Sugar cane requires a very particular climate for successful growth, which is why only two of the Southern African countries, South Africa and Swaziland, are significantly engaged in its production. For sugarcane to grow successfully, there must be a long, sunny, and warm growing season although it cannot be dry; and a sunny, dry, and cool ripening and harvesting season. After the harvesting, the raw sugar cane is transported to a sugar mill in close proximity for processing (this is because sugarcane is highly perishable and needs to be milled as soon after being cut as possible). At the mill, the cane is washed, chopped up, and mixed with water; at this point the cane juice is separated from the bagasse. The bagasse can be used as an input to paper, fuel, and animal feed production.

Figure 16: Overview of sugar value chain in SACU



Source: Authors

The cane juice then goes through a secondary processing, which includes heating and filtration, and results in molasses and sugar crystals. The molasses is separated from the sugar crystals and can be used as an input for cattle feed or alcoholic drinks, or may even be sold to consumers for use in baking. The sugar

[8] *Sources Include: http://www.sugarcanecrops.com/climate/ ;*

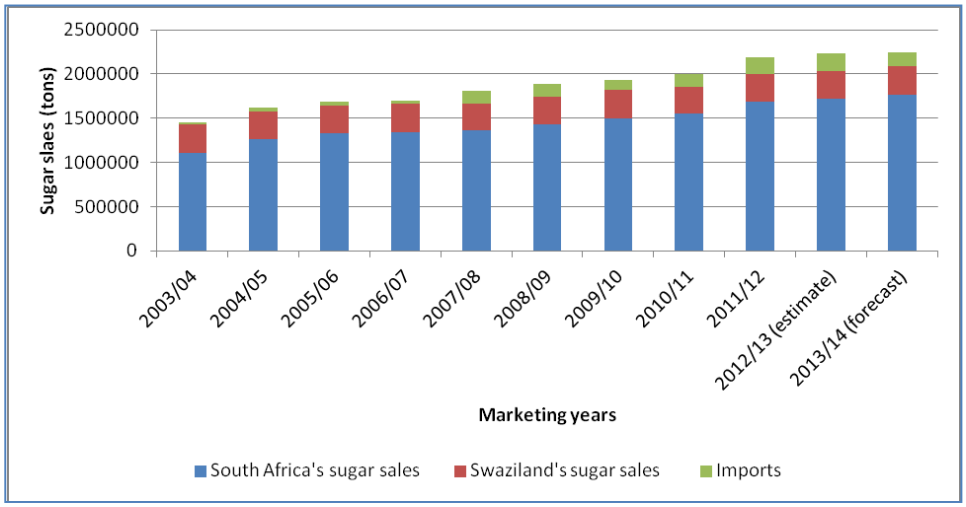
crystals are sent to a refinery for further processing, and then they are packaged and distributed to end consumers as white or brown sugar, or used as an input for foodstuffs or beverages.

The major players in the Southern African sugar industry, such as Tongaat Hulett, Illovo, and Transvaal Sugar Ltd. have vertically integrated all steps in the value chain beginning with primary production. They are all also involved in animal feed production, using the bagasse and molasses that is produced during the sugar production process. Hence, they are also key firms in the agricultural inputs stage for the poultry and dairy sub-sectors.

Overview of activities in SACU[39]

The sugar industry is highly regulated, which affects the regional supply and demand dynamics. Sugar is only produced in South Africa and Swaziland, with the majority (2.5 million tons, 80 percent) of production taking place in South Africa. The balance of 700,000 tons (20 percent) is produced by Swaziland. Access to the SACU market of around 2.2 million tons is regulated, with South Africa supplying 1.7 million tons (85 percent), and Swaziland contributing 300,000 tons (13 percent). The balance is supplied from overseas markets such as Brazil. Sugar sales into the SACU market is depicted in Figure 17. The balance of Swazi sugar is exported to Europe via preferential trade agreements. South Africa's balance of production is exported (often at a loss) in the world market. Regulatory support is in place for redistribution of proceeds from the sales of sugar via South African Sugar Association, in order to equitably distribute losses in the export market across producers[40].

Figure 17: Sugar sales into the SACU market



Kremer, 2013

South Africa dominates sugar cane production in Southern Africa, producing 19.4 million tons of sugar cane in 2012 (2.5 million tons of refined sugar), 60% of which is distributed around SACU as refined sugar. The major players in production include: Tongaat Hulett, Illovo Sugar, and Transvaal Sugar Ltd. All three of these companies have sugar cane estates, sugar mills, sugar refineries, and packaging/distribution facilities. They are all vertically integrated, and they are even involved in downstream activities that use the by-products of the sugar production (e.g., bagasse and molasses) to make animal feed, pesticides, fertilisers, ethanol,

[39] *Sources Include: FAO Stat, 2012. http://faostat.fao.org ; A profile of the South African Sugar Market Value Chain, p.3. http://www.daff.gov.za/docs/AMCP/SUGARMVCP2011-12.pdf ;*

[40] *Masuku et al (2007); SASA (2014)*

alcohol for pharmaceutical and personal care products, laxatives, and natural flavourings. Many of them also buy additional sugar from small-scale outgrowers. Companies that do not produce sugar cane, but are involved in milling activities include: The UCL Company Ltd., Umvoti Transport, and Gledhow Sugar. While the UCL Company Ltd. and Gledhow Sugar are not directly involved in sugar cane production, they both provide support and services to sugarcane farmers. UCL and Gledhow also do their own packaging and marketing. Within the downstream market, there are many players that use sugar as an input, including confectionary companies, bakeries, and soft drink manufacturers. Two of the major players in foodstuffs are Nestlé and Mondelez International (formerly Kraft Foods, which acquired Cadbury in 2010). Both companies manufacture candy, chocolate, and other food items in country and then package, market, and distribute the items around the region.

Swaziland is the only other country in the SACU region that produces sugarcane (more widely in Southern Africa, Mozambique is a significant producer); in 2012 it produced 5.4 million tons of sugar cane (0.7 million tons of refined sugar). The country is involved in all steps of the value chain except agricultural inputs, although the pattern for the dominant companies is less defined than in South Africa. Tongaat Hulett and Dalcrue Agricultural Holdings only grow sugarcane in Swaziland. Both Tongaat Hulett and Dalcrue Agricultural Holdings send their sugarcane to the Royal Swaziland Sugar Corporation (RSSC) for milling. The RSSC, a government-owned entity, produces its own sugarcane, runs two sugar mills and one refinery, and is involved in downstream activities, including ethanol production. Ubombo Sugar (60% Illovo, 40% Tibiyo Taka Ngwane Trust) is the other main sugar producer; Ubombo processes the sugar in-country, but further downstream operations happen outside the country. Tongaat Hulett noted that it's sugarcane farming operations are situated between the two Ubombo mills and, given the need to mill sugar soon after it has been cut and the close proximity of these mills, it mills its sugar in Swaziland. These mills have enough capacity to serve Tongaat's production volumes and therefore Tongaat have not needed to develop their own milling operation.

Government plays a very active role in the value chain in Swaziland. Indeed, other than Tongaat Hulett, every company is at least partially state-owned. The Sugar Act No. 4 of 1967 gave the Swaziland Sugar Association (SSA) ownership of all sugar produced in Swaziland's sugar mills and responsibility for all sales, marketing, processing, and bagging; it also established the Quota Board, the requirement of a license for growing and milling sugar cane, and the stipulation that the SSA exclusively can import and export sugar. In addition, most sugar is grown on land leased by the Swazi government, generally under Tibiyo, for 99 years. Title deeds are not issued for this land and the procedures for leasing the land for sugarcane use is unclear. The two exceptions are Mhlume (held by RSSC, but originally by J.L. Hulett & Sons and the Commonwealth Development Corporation) and Tambankulu (owned by Tongaat Hulett, an independent company). In terms of milling, the Mhlume and Simunye mills are run by the RSSC, which has a majority shareholding by Tibiyo Taka Ngwane Trust, and Ubombo Sugar Mill, which is run by Illovo. However, Illovo has 40% holdings by the Tibiyo Taka Ngwane Trust on behalf of the Swazi Government. The fourth mill, Newco Sugar Milling, will be owned by government authorities of the district, commercial farmers, and Nsoko Msele, which is owned by commercial farmers.

In terms of further downstream activities, there are a few companies operating in this sphere, primarily Mananga Sugar, SAB Miller, and Mondelez Swaziland. Mananga Sugar Packers was set up by RSSC and TSB to package and distribute milled sugar. SAB Miller bottles Coca Cola soft drinks, for which sugar is an important input. Finally, Mondelez Swaziland took over the former Cadbury plant and uses sugar as an input for its candy and cough drop production.

Namibia does not produce sugar, but has some involvement in downstream activities. Consolidated Sugar Industries (CSI) Namibia, for example, takes milled brown and while sugar and repackages it into smaller

sizes for consumers and sells under the brands Marathon Sugar, Family Choice, and NSD. Tongaat Hulett also operates three packaging and distribution plants in Namibia near Walvis Bay, Windhoek, and Tsumeb. Despite the good port access and preferential access to the EU market, there are no sugar exports from Namibia. Mondelez also operates a factory in Namibia to make candy and chocolates (the Springer Cadbury factory supplies Woolworths in South Africa under the Cadbury brand[41], apparently in particular for peak demand periods such as Easter and Christmas) , both of which depend on sugar.

Botswana also does not produce any significant sugarcane, but it is involved in downstream activities such as packaging, distribution, and downstream uses. Tongaat Hulett, for example, has a packaging and distribution plant for its sugar very close to the border of South Africa in Lobatse; and Mondelez produces gum**.** SAB Miller (under Kgalagadi Breweries (Pty) Limited) also bottles Coca Cola soft drink products, which uses sugar as an input.

Lesotho similarly has no sugar production, and has some limited involvement in downstream activities. Phuthi Transport is involved in the transport, import, distribution, and trade of sugarcane and molasses. In addition, SAB Miller (operating under Maluti Mountain Brewery), bottles and produces soft drinks.

5.2 Opportunities and Constraints to Global and Regional Sugar Value Chains[42][10]

Agri-climatic conditions

Climate, especially rainfall levels and/or irrigation infrastructure, is the critical factor for sugarcane farming. South Africa and Swaziland's climates are conducive to sugarcane growing and both countries are involved in primary production. Botswana, Lesotho, and Namibia have climates that are, most places, too arid for sugarcane to have high yields. At one point the Government of Botswana proposed sugarcane growing along the Zambezi River, but it would have required the removal of 10,000 hectares of forest, which would have been damaging to the ecosystem and surrounding environment.

Product logistics and scale

Sugarcane in its raw state is quite perishable and must be processed within 18-24 hours following harvest in order to obtain the maximum amount of sugar. A few days' delay could be detrimental to the quality of the sugarcane and put it at risk for Leuconostoc infections, which can pose problems for the entire factory and subsequently cause shutdowns. Most sugarcane is milled in Swaziland and then some of it is further refined and processed in South Africa e.g. Tongaat Hulett. It is likely that sugar milling and consumer packaging will continue to occur mostly in Swaziland and South Africa, where the processing facilities are closer to both the sugarcane farming areas and closer to the largest demand market (South Africa).

There is some opportunity to increase further downstream activity in sugar processing but in Lesotho, Namibia and Botswana this is dependent on company strategy and the local market seeing continued growth in demand for sugar products. Beyond the basic repackaging and distribution activities that are taking place in Botswana and Namibia, there remains opportunities for expansion of sugar-based processing, both in terms of beverages and food (candies, chocolates, etc). Here, however, the market

[41] http://www.qbcon.com/ProductsandServices/QCMMS/QCMMSarticles/AutomateMaintenenceManagement/ChocolateFactoryGivesWillyWonkaGoldenTicket/tabid/14630/Default.aspx, http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/TPR2009_Annex_5_Swaziland_201003.pdf

[42] *Sources Include:* http://allafrica.com/stories/200712110713.html ; http://www.sugarcane.res.in/index.php/knowledge-bank/production-technology/152 ; http://link.springer.com/article/10.1007%2Fs12355-009-0018-4#page-1

demand and the need for production scale will remain limiting factors. Indeed, the structure of Mondelez production activities in the region highlight the importance of production for wider regional markets to gain scale economies. The location of some of these production activities in markets like Botswana and Namibia are historical and not necessarily based on the most efficient supply chain economics for today's markets. This is not to say that such facilities are not likely to remain, but that they are not necessarily indicative of significant value chain opportunities. Finally, animal feed production represents an opportunity for the region, making use of the by-products from refining.

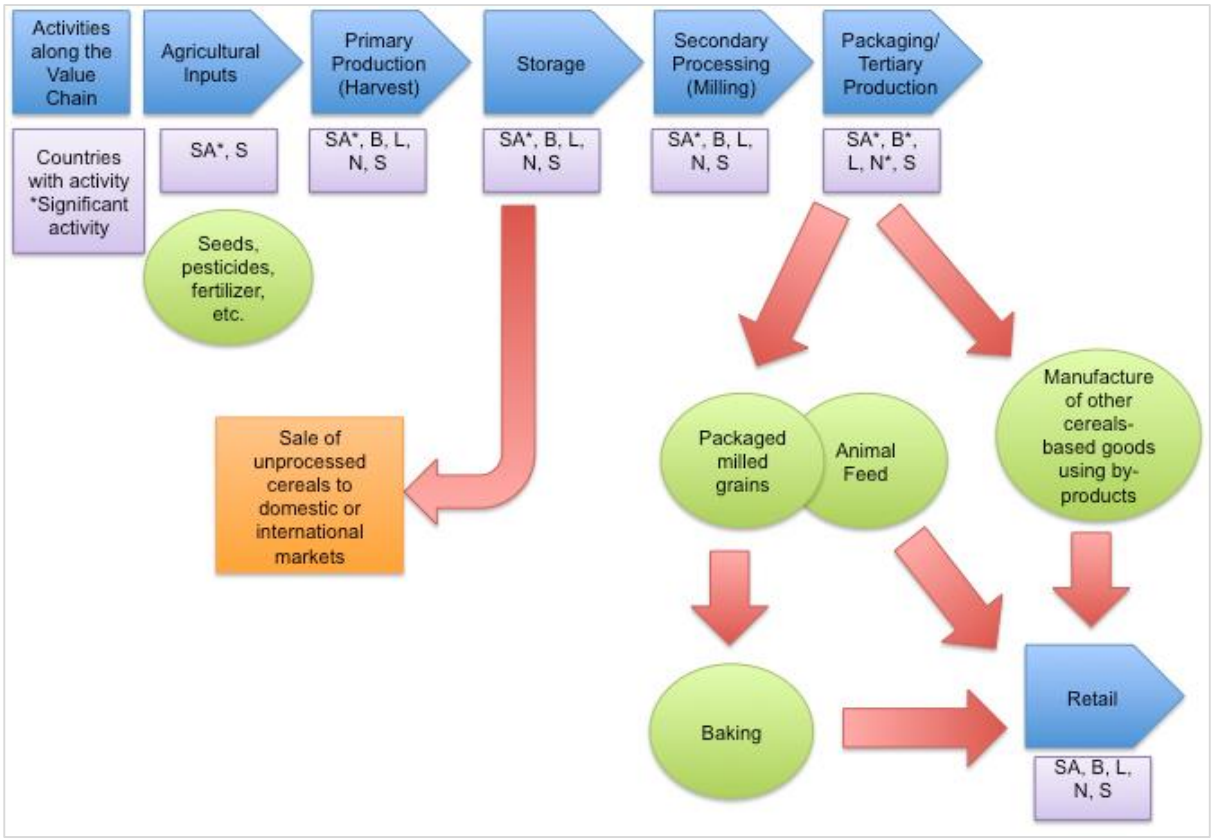
6. CEREALS AND MILLING

6.1 Structure of the Cereals Value Chain in SACU

Cereals and milling value chain structure[43]

Cereals encompass a wide variety of agricultural commodities such as wheat, maize, coarse grains (e.g., barley, oats, sorghum, etc.), and rice, many of which are staples of the African diet. In fact, cereals are so important that many countries have banned the export of cereals in the midst of the world food crisis, forcing many countries to focus on becoming self-sufficient producers.

Figure 18: Overview of cereals value chain in SACU



Source: Authors

The cereals value chain (Figure 18) begins with the agricultural inputs, which include seed, fertilizer, pesticide, land, labour, and farming equipment. In South Africa, the seed market is quite concentrated with Monsanto being the largest provider, followed by Pioneer Hybrid International and Pannar. Primary production activities include the sowing of seeds, watering, and harvesting. After the harvest, the raw cereals move into a silo for storage, which can either be on the farm or elsewhere. At this point, the raw cereals may be sold to domestic or international milling companies, or they may be exported for trade on

[43] *Sources Include: Marketline, Cereals – South Africa, 2011, p.7; UNDP, The roles and opportunities for the private sector in Africa's agro-food industry, 2012, p. 38. http://www.undp.org/content/dam/undp/library/corporate/Partnerships/Private%20Sector/Market%20Study.pdf ; Maize Market Value Chain Profile, South African Department of Agriculture, Forestry, and Fisheries, 2011, p.26. http://www.nda.agric.za/doaDev/sideMenu/Marketing/Annual%20Publications/Commodity%20Profiles/field%20crops/Maize%20Market%20Value%20Chain%20Profile%202012.pdf*

an international commodity market, such as the Chicago Board of Trade (CBOT). Cereals that are directly destined for milling activities are transported from the silos to the mills. The major players in the Southern African cereals and milling industry generally begin their involvement at this point. Mills are designated for a specific type of cereal, such as a wheat mill or a cereal mill, and can be either wet or dry. Dry milling turns the cereals into a meal, whereas wet milling separates out the cereals' components (e.g., starch, gluten, and germ) for use in various products. After processing, the milled cereals are separated and transported based on the end product for which they are destined. Some of the milled cereals and by-products go to bakeries for use in breads, pastries, etc., others go to manufacturing facilities to make or package cereal-based goods (e.g., pasta, consumer baking products, furniture, cosmetics, ethanol, adhesives, beer, etc.), and the rest go to animal feed production facilities. Following secondary production, the end product is sold to a wholesaler or directly to a retail outlet, where it may be purchased by the end consumer.

Overview of activities in SACU[44]

Table 12: Overview of SACU cereals production

Country	Available information on scale of activity
Botswana	– Ha under cereal production[7]: >160,000 – Tons of cereals produced p.a.[8]: 53,800 – Net Production Value (Int $)[10]: 7,733.31 million
Lesotho	– Ha under cereal production: 53,000 – Tons of cereals produced p.a.: 31,975[9] – Net Production Value (Int $): 3,226.18 million
Namibia	– Ha under cereal production: 301,000 – Tons of cereals produced p.a.: 138,500 – Net Production Value (Int $): 19,789.91 million
South Africa	– Ha under cereal production: >4m – Tons of cereals produced p.a.: 14,809,240

[44] Sources Include: Maize Market Value Chain Profile, South African Department of Agriculture, Forestry, and Fisheries, 2011, p.1,7. http://www.nda.agric.za/doaDev/sideMenu/Marketing/Annual%20Publications/Commodity%20Profiles/field%20crops/Maize%20Market%20Value%20Chain%20Profile%202012.pdf; FAO Stat, 2012. http://faostat.fao.org ; Marketline, Cereal Crops in South Africa, 2011, p.2, 7; Botswana Agricultural Marketing Strategy (2011-2016), September 2011, p.14-15. http://www.moa.gov.bw/downloads/botswana_agricultural_marketing_Strategy.pdf ; Regoverning Markets, Namibia: Trends in growth of modern retail and wholesale chains and related agribusiness, January 2008.; http://www.fao.org/docrep/003/x8731e/x8731e03.htm ; Swaziland Business Yearbook 2007-2008, http://www.swazibusiness.com/sbyb2007/agric.html ; World Bank, Lesotho's Agricultural Sector Assessment, http://siteresources.worldbank.org/INTLESOTHO/Resources/Agric_Policy_Note_Lesotho.pdf, p.8-9;

[7] Note: Ha under cereal production from http://data.worldbank.org/indicator/AG.LND.CREL.HA. Cereals include: wheat, rice, maize, barley, oats, rye, millet, sorghum, buckwheat, and mixed grains and only those harvested for dry grain. Based on 2012 data.

[8] Note: Tons of cereals produced from http://data.worldbank.org/indicator/AG.PRD.CREL.MT . Based on 2012 data.

[10] Note: Data from FAO Stats 2012. The Net Production Value in 1000 International dollars (Int. $) uses the average over 2004-2006, and is the unit used for value. To convert back to the local currency, multiply the $Int by the conversion factor for the local currency over the same time period (2004-2006). The conversion factor "is the number of units of a country's currency required to buy the same amount of goods and services in the domestic market as a U.S. dollar would buy in the United States" and enables one to compare levels of poverty across countries (UN Millennium Development Goals Indicators, http://mdgs.un.org/unsd/mdg/Metadata.aspx?IndicatorId=0&SeriesId=699).

The choice was made to use the Int. $ because that was the unit available for all commodities in all countries.

[9] Lesotho's cereal production has fluctuated significantly over the last few years ranging from 173,193 metric tons in 2010 to 31,975 metric tons in 2012.

	– Net Production Value (Int $): 1,465,660.17 million
Swaziland	– Ha under cereal production: 71,235 – Tons of cereals produced p.a.: 77,150 – Net Production Value (Int $): 5,423.90 million

South Africa is involved in all aspects of the cereals and milling value chain, from agricultural inputs through downstream activities. Maize is the second largest crop produced within the country, exporting primarily to Botswana, Lesotho, Namibia, Swaziland, Zimbabwe, Kenya, Mozambique, Zambia, and Mauritius. In 2011, South Africa produced 10.36 million tonnes of maize. In terms of other cereals, South Africa produces a wide variety. The market value for the cereals industry, exclusive of maize, was $3,522 million in 2010, that value is expected to reach $4,543.5 million in 2015. Apart from maize, the coarse grains segment was the most lucrative in 2010 with a value of $2,326.7 million, followed by wheat ($831 million) and rice ($364.3 million). However, growth is expected to decelerate over the 2010-2015 period to a CAGR of 5.2%. Whilst noting the recent discovery of a flour cartel that included all the major plays in the milling industry (e.g., Pioneer Foods, Tiger Brands, Premier Foods, Foodcorp), South Africa is not a major wheat producer, and wheat imports have in fact increased over the last few years. South Africa is active in downstream activities for wheat, such as baking; Albany, Blue Ribbon, Sacco, Sunbake, and BB Cereals are the main bakery companies. Amongst the largest players in this market, there is no clear pattern around the level of involvement within the value chain and vertical integration. For example, AFGRI LTD provides agricultural inputs, storage facilities, and is involved in the import/export of grains, however it does not participate in any primary production or processing activities. Cargill, Inc. also provides agricultural inputs like fertilizer, but leaves the primary production to others, only to become involved again in the processing stage. Then there are the major milling companies like Premier Foods, Tiger Milling, Pioneer Foods, Pride Milling, and Ruto Milling who only focus on milling and downstream activities.

Botswana is involved to some degree in every stage of the cereals and milling value chain through downstream activities. However, its limited involvement in primary production has been a source of concern for the Government of Botswana. Botswana has a diversity of crops, including sorghum, millet, white maize, yellow maize, sunflower, groundnuts, swan cowpeas, black eyed beans, white haricots, jug beans, teary beans, and china peas, but production is not at the level that it could be. Even though the Government of Botswana requires that 70% of milled grains (including maize meal, rice, sorghum, sorghum meal, sorghum rice, maize meal or animal feed for poultry and livestock), 30% of maize grain, and 50% of sorghum grains be grown in Botswana, production is quite low, and Botswana is dependent on imports, which are mostly sourced from South Africa. A 15% flour levy is applied to imports from all sources[45]. Due to the SACU Agreement, Botswana has the right to ban or restrict the import of these products, usually through a permit system, when domestic production is able to handle domestic needs since milled cereals and sorghum fall under the "controlled" products category; this ban can even extend to South Africa. The Botswana Agricultural Marketing Board (BAMB), a government-owned but independently-operating entity, is the main price setter within the cereals market and has been involved in investigating the reasons behind low levels of production. Some of the reasons BAMB cites are that production costs are higher in Botswana than in South Africa, required capital investment for large-scale production is extremely high, and yields are lower (e.g., 2T/ha maize yields in Botswana versus South Africa's 4T/ha) due to environmental/climatic conditions. The Botswana Agricultural Marketing Board purchases domestic maize at 15% below import parity, meaning that the commercial market prices of maize are either the same or even higher than

[45] *According to World Bank 2009 SACU Trade Policy Review*

imported maize. It is estimated that this restriction adds 275 pula/ton to the animal feed price, because the price of domestic cereals like maize is higher than imported maize.

Locally, maize and wheat flour is processed by companies such as Bolux Milling Company, Bokomo, and Shashe Milling Company. However, most processed foods made from grains are sourced from South Africa, and products made from maize flour in particular were significantly cheaper when imported from South Africa. Bolux, Bokomo, and Shashe all begin their involvement in the value chain at the milling stage – Bolux adds further value, and claims to be the only commercial producer of biscuits and pasta in the country. Bokomo also produces poultry and eggs, in addition to distributing a wide range of Pioneer group products produced in South Africa.

Namibia is involved in all aspects of the cereals and milling value chain following agricultural inputs, including some downstream activities. Namibia is currently trying to increase primary production of cereals and develop its milling industry, especially in terms of flour production. Namib Mills (NMI Corporation) and Bokomo Namibia (Pioneer Foods and Frans Indongo Group) are the two major milling companies in the country. Neither company is involved in primary production, but they both have maize and wheat mills. Namib Mills also produces pasta from the milled grains and supplies some of its milled products to Feedmaster for use as animal feed. The Namibian government has protected the industry by banning all flour imports into Namibia; such protectionist measures have allowed Namib Mills to increase its maize production. Despite this, NMI have noted that: '*NMI does use locally produced crops in Namibia as long as the local farms produce enough'.*This points to occasional supply limitations in Namibia. Outside of maize and wheat, there are smaller companies that deal in sorghum and millet processing.

In **Swaziland**, maize is the most important cereal crop and primary production is mostly undertaken by subsistence-farmers. The Swazi government has actively tried to encourage increased production through various initiatives to decrease reliance on cereals imports from South Africa, and while production has increased, there is still not enough to cover demand. Local authorities are the only ones allowed to import white maize into Swaziland. This creates an avenue to promote local production but is dependent on the local farmers ability to produce enough white maize to meet demand. Sorghum and rice are also produced within the country, but current levels of production, and in the case of sorghum, current levels of demand, are low. There are a variety of companies that are involved in the milling process and downstream activities, including Swaziland Mills (Kirsh Group), Dalcrue Agricultural Holdings, Ngwane Mills (NMI), and The National Milling Corporation (government-owned). Ngwane Mills is involved in wheat and maize milling, as well as animal feed production through Feedmaster, which produces feed for broiler, layer, pig, dairy and beef farmers in an effort to reduce reliance on imports from South Africa.

Lesotho produces maize, wheat, and sorghum, but it is increasingly reliant on imports from neighbouring countries, mainly South Africa. Production methods are generally unsophisticated and make little use of irrigation. Lesotho's climate is quite favourable for wheat and sorghum production, but farmers continue to grow maize, despite its declining yields, increasing production costs, and high variability due to fluctuating weather conditions. The Lesotho government has tried to provide subsidies for agricultural inputs to increase the production of crops, but the way that it was structured has resulted in increased unit costs for small maize producers. The market price of maize is relatively low, and the small increase in productivity does not make up for the increase in capital costs for the small producers; however the subsidies do benefit large-scale producers. The cost of producing maize is so high in Lesotho that it costs less to import maize from South Africa even with transportation and import duties taken into account. Currently, there are two milling companies operating in Lesotho, Lesotho Flour Mills and Lesotho Milling Company. Lesotho Milling Company, which mills maize, is incorporated in both Lesotho and South Africa – available information indicates that this is a Lesotho-owned company with 40% government ownership, based in Maputsoe

(Lesotho) and with a presence in Ficksburg (South Africa). Lesotho is not significantly involved in any downstream activities.

6.2 Opportunities and Constraints to Global and Regional Cereals Value Chains[46]

Agri-climatic conditions

Climate, especially rainfall levels, irrigation infrastructure, adequate open space, and interest in farming are some of the main factors to successful grain farming. Most grains grow quite well in South Africa, but maize, for example, does not grow well in countries like Botswana or Lesotho – parts of Botswana have too little rain, and some too much. Lesotho also has insufficient rainfall, and it does not have any irrigation infrastructure. Irrigation infrastructure can be costly to build. For example, Gaborone, Botswana is at risk of running out of water for its population, and has in the past placed restrictions on water usage.

BLNS countries are not as strong in grain production as other countries in the region such as Zambia, but there might nevertheless be some scope for improved production yields and competitiveness through enhanced agricultural practices. For countries like Namibia, Botswana, and Lesotho who have irrigation barriers and sporadic rainfall but desperately need access to inexpensive animal feed to support other agricultural industries, sorghum might be a good choice.

Other barriers to productivity

For small scale farmers who sell to production companies, there is also the problem of receiving payment for the grains; when they finally receive payment, they are usually so cash-poor that they cannot invest in new technologies, higher quality seeds, or pesticides to improve their yield. Unlike the contract farming system in the dairy industry, inputs are not generally pre-financed by grain mills.

Product logistics and scale

In terms of milling and animal feed, all countries in Southern Africa have a local demand base and could produce in country. Since grains are not perishable, they can be transported for processing in other locations. Increasing local animal feed production would be beneficial to a variety of other agricultural sub-sectors and it would not necessarily negatively affect South Africa's feed industry, as it has been dealing with a deficit as of late. Botswana's two major feed mills (Nutrafeed and Bokomo) could easily increase production without much expense, as they are currently operating at only ~65% capacity.

In term of further downstream processing such as pasta production, this is likely to continue to be dominated by South Africa due to economies of scale of existing manufacturing facilities.

Barriers to regional trade (import restrictions)

Despite significant barriers to imports of milled grains, even within the region, domestic production in the BLNS has not been sufficient to meet demand. As a result, domestic millers struggle to produce competitively, with relatively high input costs and low capacity utilisation. This, subsequently, contributes to higher costs for downstream food processors, limiting their competitiveness. Certainly in the short time, easing import restrictions could open up potential for increased downstream activities and more integrated supply chain development across the region. But this would obviously have upstream implications.

[46] *Sources Include: http://trade.ec.europa.eu/doclib/docs/2013/july/tradoc_151654.pdf*

Easing up on import restrictions in the region could open up the potential for increased downstream activities, enabling companies to produce more competitively.

On the other hand, the issue of scale (discussed above) often trumps the policy environment. For example, one large South African milling company structures and positions it operations to serve the major metropolitan markets in South Africa, as the nature of the products and margins in the domestic milling business make it important to develop capacity either within the growing areas or in proximity to core volume markets. Their available capacity is designed to supply South African markets. Botswana and Namibia are not considered to be core markets of interest because of their low population density in terms of market and in the case of Namibia, having their largest market (in Windhoek), far from the South African milling operations. This is seen to have prevented the export of milled products from South Africa to Botswana and Namibia, rather than the trade barriers.

7. BEEF AND LIVESTOCK

Beef is the mainstay of the agricultural sector in Botswana, Namibia, and (to a lesser degree) Swaziland, as well as a very significant part of the South African agricultural sector. Namibia and Botswana are both net exporters of beef, while South Africa and Swaziland are net importers. This chapter discusses the structure of the beef industry in SACU countries and the prospects for deeper integration into global and regional value chains.

7.1 Structure of the Beef Value Chain in SACU

Beef cattle are mainly fattened under intensive conditions in feedlots in South Africa, Botswana, and Swaziland. Weaner calves (±8 months of age) are sold to feedlots by primary producers in South Africa and Swaziland. In the case of Botswana, BMC buys the weaner calves themselves and fatten them under contract before slaughter, as part of their backwards integration strategy. Namibian primary cattle producers generally raise and fatten their own cattle on the veld, although Meatco in Namibia also implemented a backwards integration strategy, and operates a feedlot and finances the acquisition of weaners, to be either fattened on the veld or in farmer owned feedlots.

Beef export abattoirs in Botswana and Namibia focus on three markets:

- *International markets like the EU and Norway* for high value cuts. Botswana, Namibia, and Swaziland export around 25,000 tons of boneless beef per annum to the EU, where they enjoy duty and quota-free access, and also have duty free access to the lucrative market in Norway[47]. These exports generate around US$25 billion of foreign exchange per annum at current exchange rates, and are a major factor that enhances the overall competitiveness of the beef industry, especially for Namibia and Botswana. Swaziland Meat Industries (SMI) exports mainly to Norway.
- *The South-African market* for forequarters mainly for the fast food market; and
- *Local markets*, which have been growing in recent years. This includes the SACU regional market and a growing market in the wider SADC region

SACU has three main abattoirs approved for exports to the EU:

- *Botswana*: Botswana Meat Commission (BMC), which has a statutory beef export monopoly under the BMC Act, and is the only beef exporter from Botswana.
- *Namibia*: The Meat Corporation of Namibia (Meatco) is the largest EU export abattoir in Namibia, and was established and is regulated under the Meat Corporation of Namibia Act, 2001 with the purpose to serve the interests of livestock producers
- Swaziland: Swaziland Meat Industries (SMI) is a privately owned business, and the only EU approved export abattoir in Swaziland.

The South Africa market differs substantially from the rest of the region. South Africa is a net importer of beef with an average of 47,000 tons of beef imported for the period from 2007 to 2012, equivalent 5 percent of South African production. South Africa exported only around 4,000 tons of beef per annum for the period 2006 to 2011, mainly to Mozambique and Swaziland. The South African beef industry is dominated by large competing beef supply chains, which are vertically integrated from the fattening of

47 With an annual quota of 1,600 tons; 1,600 tons and 500 tons, respectively

cattle in feedlots, slaughtering and value adding in private abattoirs, to the supply of pre-packed beef cuts to the consumer in the retail market.

Further value addition to cattle hides are taking place in South Africa, while Namibia also profitably adds value to raw cattle hides and exports it in the "wet blue stage" to international markets like Italy, China, Portugal and Turkey. Botswana and Swaziland sell raw hides, mainly to South African buyers. Figure 2 indicates a typical cattle supply chain from the primary producer to the end market in SACU.

The trade in beef and cattle by SACU countries is illustrated in Figure 19, and the structure of value chains that link to this trade in Figure 20. Trade within SACU can be summarized as follows:

- *Live cattle*: The export market for live cattle to South Africa is an important market for Namibia, particularly for emerging communal farmers – it contributed an average of 38 percent of Namibia's total cattle producer income from 2011 to 2013. No direct live cattle exports are allowed from Botswana due to the fact that BMC has the sole right to export beef from Botswana, although from time to time the government will allow live cattle sales (e.g. to Angola and Zimbabwe), particularly from areas that face restrictions on EU exports due to foot and mouth disease (FMD).
- *Carcass*: Botswana (around 9,000 tons per annum) and Namibia (12,000 tons) export to South Africa; South Africa exports to Swaziland (around 4,000 tons). Botswana and Namibia exports to South Africa tend to enter into the food processing sector, while most of South Africa's exports to Swaziland are processed and distributed by SMI[48].
- *Raw hides*: From Botswana and Swaziland to South Africa

Figure 19: Overview of trade in cattle and beef products by SACU countries

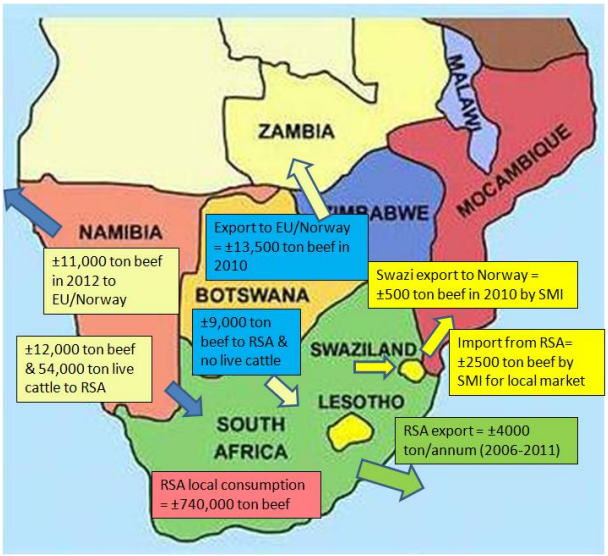
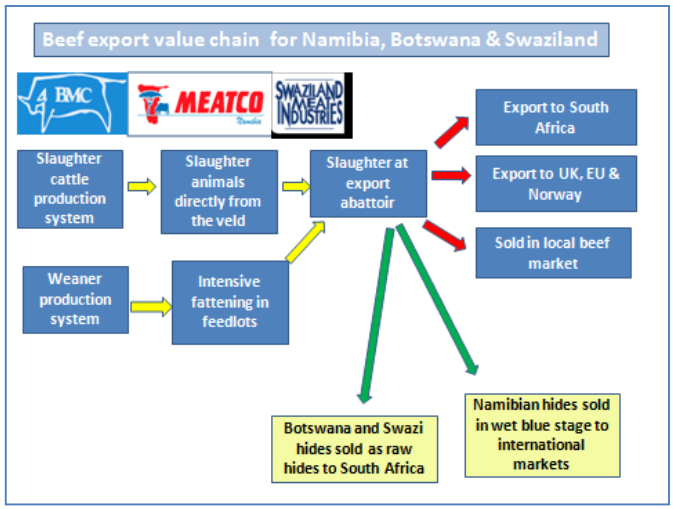


Figure 20: Typical cattle value chains in Namibia, Botswana and Swaziland



Source: Authors

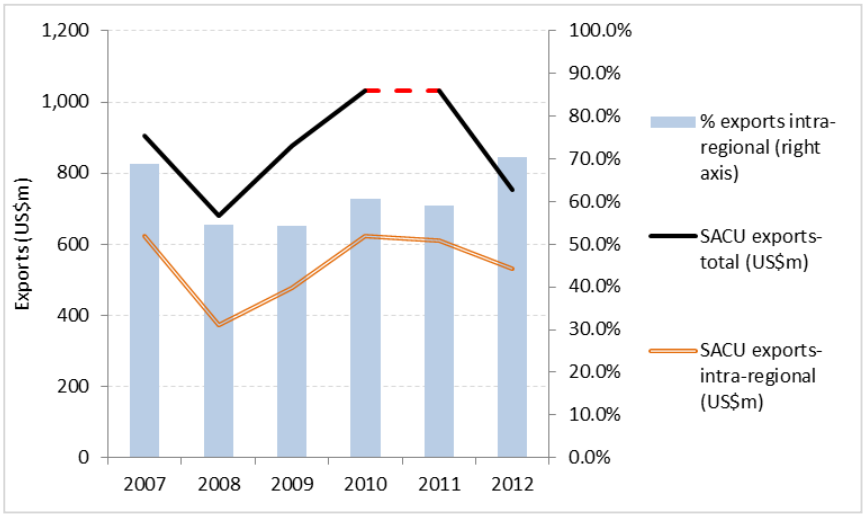
[48] *83% of SMI's total volume is imported as carcasses from South Africa and sold in the local market. The main reason for their high level of imports is the lack of sufficient supply of cattle produced in Swaziland*

7.2 Opportunities and Constraints to Global and Regional Beef Value Chains

Overview of global and regional trade performance

Figure 21 gives an overview of regional trade performance in the livestock and beef sectors (covering HS sections 01-02 and 16). As of 2012, total exports from the region were under US$800m, having fallen from over US$1 billion in recent years. Intra-regional trade fluctuates as a share of total exports, but accounts for the majority, ranging from around 55 percent to 70 percent in recent years. Meat exports account for around 60 percent of intra-regional trade, with prepared meat products and live animal trade accounting for about 20 percent each. Live animal trade fluctuates substantially year-to-year, while prepared meat products is growing robustly, having almost tripled between 2007 and 2012.

Figure 21: Global and intra-regional livestock and beef exports (HS1-2 and 16): 2007-12



Data Source: SACU Trade Statistics

Global context: determinants of competitiveness in global beef markets

Given the preferential access enjoyed by SACU, the EU market remains the critical one for SACU's beef exporters. The EU imported around 175,000 tons of beef annually between 2010 and 2013. SACU had a market share of 11.4 percent in the EU 2010. Due to the suspension of exports from Botswana during 2011-2012[49], SACU market share dropped to an average of 7 percent for the period 2010-2013. It is expected that the SACU market share will again increase following the return of Botswana to the EU market as of the middle of 2013. SACU's main competitor in the EU market are South American countries – mainly Brazil, Uruguay, and Argentina – which control more than 70 percent of the market (Figure 22).

Swaziland, Namibia and Botswana have very similar supply chains for beef exported to the EU and Norway. Virtually all beef is exported (fresh or frozen) by sea. Namibia and Botswana mainly use Cape Town as the export port, while Swaziland is uses Durban. Figure 23 illustrates the typical export supply from Namibia and Botswana to the EU and Norwegian markets. It also presents an estimate of supply chain costs at each stage[50]. The total supply chain cost (excluding commission and marketing cost) is estimated at US$0.69/kg

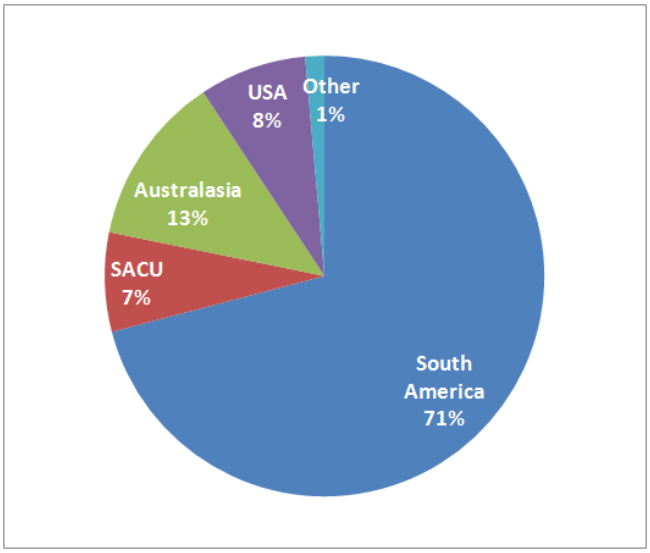
[49] *Due to non-compliance on traceability issues*

[50] *Note that this is based on the authors estimates; no specific financial information was made available by beef exporters within SACU*

boneless beef (which accounts for around 8 percent of the income generated in the EU market). If market commissions generally paid to exporting agents is added, the total cost of the supply chain from the export abattoir in Botswana/Namibia to the retail market in the EU is estimated at around 12 percent of revenue.

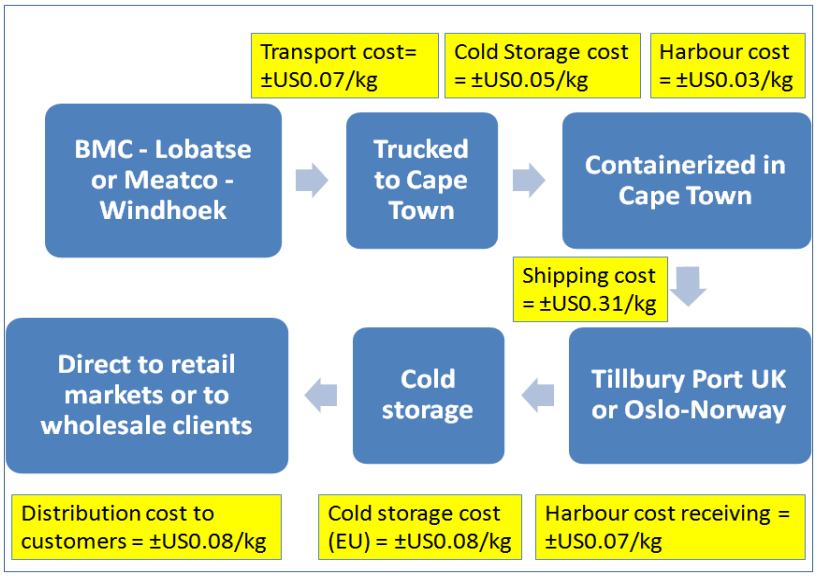
The reduction in transaction costs through the supply chain is seen as a key objective that will increase efficiency. Collaboration between Meatco and BMC is taking place to reduce the supply chain cost to international markets. Joint negotiation with shipping lines for the shipping of beef from Cape Town to the EU and Norway was conducted. Their combined scale allows them to commit much higher volumes, reducing per kg prices.

Figure 22: Average market share of imports of boneless beef to the EU (2010-2013)



Data source: Trademap

Figure 23: Typical export beef supply chain from Botswana and Namibia to the EU and Norway



Source: Authors

While supply chain costs play an important role in competitiveness to the EU, more fundamental to competitiveness is compliance with strict EU standards, and the costs associated with them. A cost calculation made during 2013 in Namibia estimates the direct cost of compliance to the EU market at

around US$5.5 million per annum – spread across Namibia 12,000 tons of exports this is equivalent to around US$0.50 per kilogram, or around 5.5-6 percent of revenues.

Box 5: Compliance requirements to enter the EU beef value chain

In order to qualify as an export country to the EU, a country must be on a positive list of eligible countries. The eligibility criteria are that exporting third countries must have a competent authority, which is in charge of the inspection and certification of veterinary and general hygiene conditions. The country must further fulfil the relevant Animal Health Standards, and national authorities must verify that requirements are met and that a monitoring system is in place to verify compliance. Meat plants must be approved by the European authorities and an inspection from the EU is necessary to continuously confirm compliance.

The additional cost to comply with EU requirements by the beef supply chain, consists of the following main issues:

- Cost to operate and maintain a national livestock traceability system, including direct cost of additional ear tags as well as the management cost on a national level to maintain the traceability system.
- The ban on the use of growth promoters, is negatively affecting the profitability of beef feedlotting.
- The 40/90 day rule requirement to eliminate risk of Foot and Mouth Disease (FMD) states that livestock must reside in an approved FMD zone for at least 90 days, be registered on a national livestock traceability system, and resident on a registered holding (farm) for a continuous period of at least 40 days before transportation to an EU approved slaughter house. This rule reduces the number of eligible cattle for export purposes, and the beef must be sold in the local market at a lower price.
- Livestock transportation requirements – Certification and continuous sterilization of trucks transporting cattle to the abattoir.
- Carcass maturation requirements – Temperatures in coolers must not drop below 2°C. When this happens the whole room is not allowed to be exported to the EU, with costs to the industry

To analyze supply chain competitiveness, the SACU supply chain to the EU is compared with one of the EU's leading suppliers, the Argentinian beef industry The main findings summarized in Table 13. In short, while SACU has tariff and quality (shelf life) advantages, Argentina benefits mainly from having much lower production costs, along with lower transport costs, to the EU.

Table 13: Comparison of competitiveness in beef exports to EU: SACU versus Argentina

Competitive factor	Impact
Beef production cost	Argentina is producing beef at a lower cost than South Africa and Namibia (Agribenchmark, 2013)
Cost of market access	SACU exporters enjoys duty free access to the EU market, while Argentina enjoys only a discount in tariffs. SACU therefore has a cost advantage through the supply chain
Shelf life	According to Francis (2008), the shelf life of Argentinean beef exported to the UK has a shelf life of 77 days. In contrast with this all beef export abattoirs in SACU is guaranteeing a shelf life of 6 months. SACU product therefore has a quality advantage, offering greater operational flexibility.
Supply chain cost from abattoir to EU market	Due to the fact that Argentina as a single country exports more beef to the EU than SACU in total, they should be able to negotiate lower shipping fees, realising a cost benefit over SACU

Source: Authors

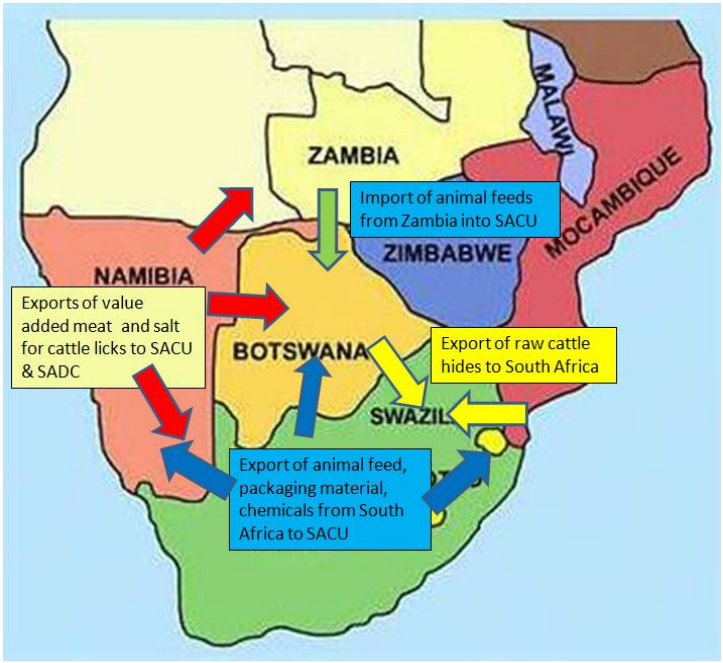
Other factors that impact competitiveness include:

- *Exchange rate fluctuations*: The past 5 years were characterized by a relative strong Rand against the major currencies used to transact internationally. During 2013, it is the first time that the Rand weakened again to levels last seen in the latter part of 2008. A strengthening local currency in an inflationary period will weaken the competitiveness of the export business if the price inflation in the export market is lower than the domestic inflation. In a situation where the currency is weakening, access to a hard currency market can help to protect the real income of the producer. Fluctuating exchange rates therefore provide challenges to contain cost in a weakening exchange rate environment, and a reduction in income earned by beef exporters in a strengthening exchange rate environment.
- *International trade agreements*: SACU's position in the EU market relies very strongly on its duty-free access. The recent conclusion of The Economic Partnership Agreement negotiations between the SADC EPA Countries[51] was critical to ensure maintenance this access.
- *Implementation of SPS rules by local competent authorities*: The EU has very stringent requirements that apply to all. It is however important to take cognizance of the fact that the application of the rules offers flexibility. The risk always exist for the local competent authority to over-apply requirements and in such a way adds unnecessary cost to export to the EU. It is thus the responsibility of SACU competent authorities to ensure that risk elimination is achieved at the lowest possible cost to the industries.

Opportunities and challenges to building regional value chains

Product flows within SACU as well as from SADC, which are used as inputs in the beef supply chain, as well as by-products from beef slaughter are summarized in Figure 24.

Figure 24: Trade flows as inputs for beef supply chain



Source: Authors

[51] *Namibia, South Africa, Botswana, Lesotho, Swaziland, Mozambique, and Angola*

Various opportunities exist in the beef supply chain that will increase trade within SACU. These are summarized below:

- *Trade in animal feed between South Africa and BLNS:* Botswana and Namibia are both net importers of animal feed, mainly due to climatic reasons and scarcity of sufficient irrigation potential, which makes it uncompetitive to produce large volumes of animal feeds. Beef feedlots in Botswana are importing the majority of the feed required from South Africa, while Namibia also importing significant volumes of energy sources (e.g. maize), and protein sources (e.g. soya oil cake) for feeding purposes from South Africa. Swaziland is a large producer of sugar cane, and a by-product of sugar production like molasses is an excellent energy source for beef cattle. The opportunity therefore exists to further increase trade between Swaziland and the rest of SACU in terms of animal feeds.
- *Trade in animal feed between SACU and Zambia:* Zambia is becoming an important exporter of animal feeds into SACU. Zambia is able to deliver animal feeds in Namibia and Botswana more competitively than South Africa due to the fact that back loads are utilized on trucks that delivered frozen fish originating from Walvis Bay to Zambia and the rest of SADC. Trucks coming from South Africa to Namibia or Botswana are generally full, where in the opposite direction many truck are empty and willing to offer a reduced rate. Therefore it is the imbalance of trade in each case that makes transport from Zambia more competitively priced compared to transport from South Africa.
- *Export of value added meat products from BLNS to South Africa:* Hartlief Namibia is currently exporting high value meat products to Botswana and South Africa. The BLNS countries are exporting mainly forequarter beef to the South African market to supply the fast food service market for hamburger patties etc. The opportunity for manufacturers in Botswana, Swaziland and Namibia exist to produce value added meat products and market them in the South African market.
- *Exports of salt for lick purposes to South Africa:* Namibia is a net exporter of salt to South Africa, as well as SADC. Salt is included in mixes for mineral licks provided to cattle under extensive conditions. Increased use of mineral licks in South Africa and Botswana would increase this trade.
- *Imports of production inputs by BLNS from South Africa:* Packaging material and chemicals for cleaning purposes are used by beef export abattoirs in Namibia, Botswana and Swaziland is mainly sourced from South African suppliers. Growth in the beef industry will lead to growth in sales of these inputs.
- *Further value adding to cattle hides:* Cattle hides are exported unprocessed as raw hides from Botswana and Swaziland to South Africa, while Namibia is adding value to raw hides and export hides in "wet blue" stage to international markets like Italy, China, etc. An opportunity, especially for Botswana exists to add value to their cattle hides. The creation of economies of scale in leather tanning is important to ensure sustainability. Swaziland raw hides can possibly be exported to Botswana instead of to South Africa, which would increase the economies of scale benefits for Botswana, while Swaziland could benefit from higher prices. The impact of transport cost should however be evaluated in such a decision.
- *Collaboration between beef export abattoirs:* Although the various beef export abattoirs in SACU are independent companies, a common ground exist between them. They are all basically using the same supply chain from Southern Africa to the EU market. All SACU export abattoirs are exporting small volumes in international terms and they should be able to reduce the shipping fees if they can jointly negotiate with shipping lines. All export abattoirs are also competing in their respective local markets. Experience in local market development can be shared to increase overall competitiveness.

Taking advantage of these opportunities, however, will require overcoming a number of constraints in the integration regional value chains, including:

- *Animal health status:* The veterinary status of a specific country greatly influences the ability to export cattle and beef cuts. Namibia, Botswana and Swaziland and South Africa all have different veterinary zones with different veterinary statuses, of which exports are only allowed from disease free zones. Foot and Mouth Disease (FMD) is the most significant disease and these veterinary zones are largely determined by the prevalence of FMD. The reinstatement of South Africa as an FMD free zone during February 2014[52] provides significant opportunities for further integration of the regional beef supply chains. The beef export supply chains of Namibia and Botswana to the EU and Norway is already integrated, by basically using the same supply chain through the Cape Town port to markets. The veterinary status is therefore a critical factor that needs to be safeguarded by each country to ensure that the country is able to trade in international markets.

- *Trade barriers:* Various trade barriers in livestock and livestock products are currently in place in the region, which undermines the potential for supply chain integration. These include:

    - *Botswana's export monopoly and ban / restrictions on exports of live cattle:* The BMC, a statutory enterprise of the Republic of Botswana, wields a decade long statutory monopoly over all beef exports. The retention of the statutory beef export monopoly of BMC in terms of Section 21 of the BMC Act was again recommended by the Parliamentary Committee in their 2013 report for the short and medium term to allow for a reinvigoration of the national beef sector, and the enhancement of the capacity of BMC to effectively compete in a deregulated and competitive beef export market in the long term. Although this regulation ensures an increase in capacity utilization of BMC abattoirs (and therefore reduce the overhead slaughter cost per head), it effectively eliminated any competition in the beef market in Botswana. It also results in a situation where the export of live cattle are normally banned.

    - *South African livestock import regulations:* New import regulations were instituted by the South African Veterinary Services for the import of livestock into South Africa, and became effective on 1 May 2014. These regulations had a disastrous impact on the export of livestock from Namibia to South-Africa, and basically brought the export of cattle, sheep and goats to a complete stop. The new import regulations mainly require that an authorized Namibian veterinarian must declare that cattle for export has been individually identified and kept in pre-export isolation. It is also required that cattle has past tests with negative results within 30 days prior to departure to South Africa for tuberculosis and brucellosis (except females younger than 18 months), and has been vaccinated against Anthrax not longer than 12 months prior to import, as well as been treated for internal and external parasites within 21 days prior to departure. These regulations are regarded by the Namibian livestock industry as trade barriers for economic reasons, which are specifically and negatively affecting the emerging and communal farmers, as they primarily produces

[52] South Africa experienced an outbreak of FMD in northern KwaZulu-Natal in February/March 2011. This resulted in South Africa being delisted by the OIE as having a zone free from FMD where vaccination is not practiced. This, in effect, equates to the whole of South Africa was being classified as a potentially infected area. This has stopped exports of cloven-hoofed livestock and wildlife (mainly high value breeding animals) from South Africa to other SADC countries. During February 2014, South Africa's status of a FMD free zone where vaccination is not practiced was formally reinstated by the OIE. In the same week, Namibia opened up its borders for the import of cattle and beef from South Africa.

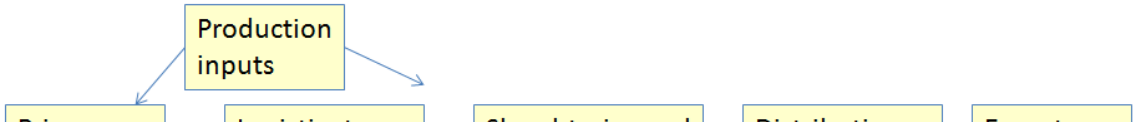
weaner calves. The Namibian Government is currently negotiating with the South Africa Government to abolish or change these regulations in order to allow export of livestock to South Africa again.

- *Low capacity utilization in abattoirs:* More fundamentally, growth in the SACU beef industry, as well as deeper regional integration, will rely on improvements further upstream in the value chain. The major limiting factor that inhibits the Southern African beef export supply chains is the lack of sufficient cattle available for slaughter, which is a function of low off-take rates. This, in turn, is a complex challenge to address, as it has both technological and cultural determinants. In any case, one outcome is that beef abattoirs are not currently being utilized at full capacity[53], which negatively affects the cost competitiveness of the total beef supply chain while market opportunities under the current export regime in the EU are not fully utilized.

7.3 Summary of Trade-Related Challenges

The supply chain challenges facing the SACU beef industry can be summarized as shown in Figure 25:

Figure 25: Summary of beef supply chain challenges in SACU



Primary production	Production inputs	Logistics to cattle markets	Slaughtering and value adding	Distribution and logistics	Export markets
Low productivity & Real decline in profitability	Reliance on South Africa for most production inputs	Cost increases linked to exchange rate (Fuel, Vehicle acquisition)	Fluctuating exchange rates complicates cost management	Long distance to lucrative markets	Perception of imported product in international markets
Primary production cost higher than main international competitors	High demand for imports of inputs with low demand of returning freight increase cost of inputs	Animal welfare issues increase cost	Interpretation of rules by local competent authority increase operational costs	Low supply volumes against international players increase cost	Competition with global players by small player in international market
Limited markets due to strict import requirements by SA		Border bureaucracies delay live cattle exports	Reliance on international trade agreements and veterinary authorities for market access		Competition with substitute proteins like chicken limits income growth
Requirements by international markets increase production cost			Low utilisation of slaughter capacity by export abattoirs increase operational cost		

Source: Authors

[53] *An export abattoir requires a high level of capital investment, with fixed costs contributing an estimated 70% of total operating costs. Typically a plant would be designed to handle a predetermined throughput and the lowest cost per unit would be achieved at maximum capacity utilisation. Estimates of capacity utilization at BMC and Meatco are around 63%, while at SMI utilization in 2013 was just 22%.*

Several specific trade, transport, and trade facilitation issues in the SACU beef supply chain are affecting its ability both to expand in the global beef value chain and to integrate more deeply in the regional value chain. These include:

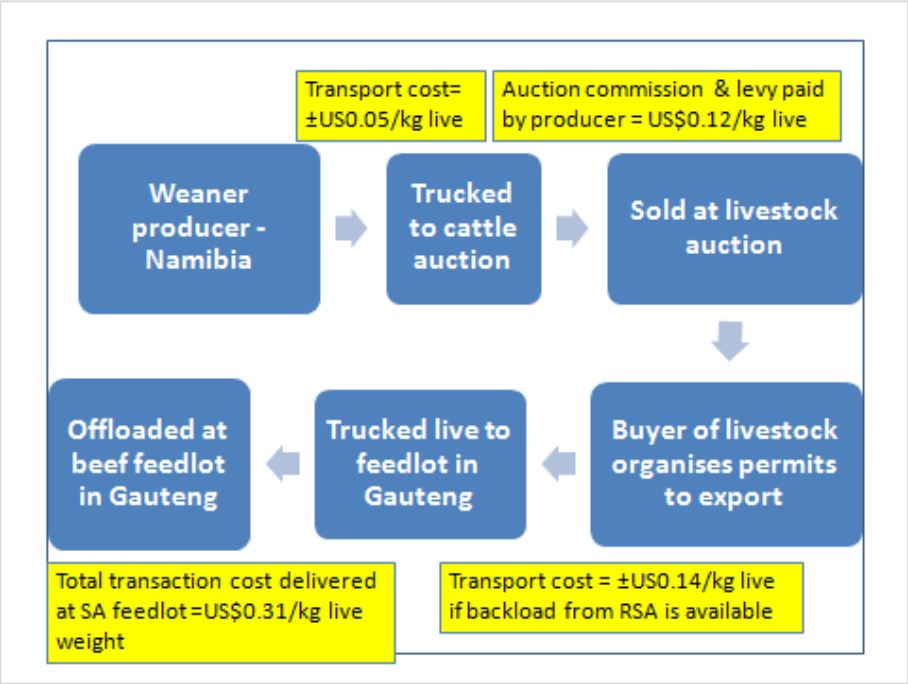
Trade policy and trade facilitation for the export of weaners from BLNS to South Africa

South Africa is a crucial market for weaner calves from Namibia. Weaners are transported live to feedlots in South Africa, where they are fattened and supplied into the South African beef value chains. The cost through the supply chain from the primary weaner producer in Namibia to the feedlot in Gauteng in South Africa is shown in Figure 26.

The export requirements in place, before stricter requirements were implemented as described earlier, include the following:

- *South Africa* - A livestock import permit issued by the South Africa Department of Agriculture, with clear information in terms of reasons for import, as well as health declarations which is completed by the Namibian Directorate of Veterinary Services (DVS) at the point of loading of animals.
- *Namibia* - A movement permit issued by the DVS of Namibia to transport the livestock from origin to the border, as well as a completed departure register (as required by traceability system) is accompanying the truck to the border. A livestock export permit issued by the Meat Board of Namibia, as well as a floor plan with the number of cattle in each compartment of truck, must also accompany the truck exporting the livestock.

Figure 26:Typical export supply chain of live weaners from Namibia to South Africa



Source: Authors

Specialized trucks must be used to transport weaners in order to minimize injuries and losses. The availability of backloads from South Africa is very important to export live cattle competitively to South Africa. Due to the fact that so many other commodities, like maize and other animal feeds, as well as other products like building materials is imported from South Africa, backloads to Namibia is readily available. The fact that specialized trucks are used for livestock export, however, limits the type of products that can be loaded back to Namibia in these specialized trucks. In a case that backloads will not be available, the cost of export of live cattle will double from the current cost of around US$0.14/kg live weight. Transport,

levies and commission paid to move weaners from the primary producer in Namibia to the feedlot in South Africa are contributing almost 20 percent of the landed cost of weaner calves in South Africa.

Trade policy – bans on export of animal feed from Zambia

Zambia bans the export of animal feed to SACU countries on a regular basis, due to their internal supply and demand challenges. The demand for animal feeds in Zambia is peaking in the winter and until the first rains are starting in summer. During the past couple of years, exports of animal feeds to SACU was banned every year for a certain part of the year, and SACU countries are then reliant on supply from South Africa.

Transport cost of imports of animal feed

Transport cost for imports of animal feed from South Africa contributes currently around 33 percent of the landed cost of a commodity like maize. This is again linked to imbalanced loads and their impact on transport costs. This in turn reduces the competitiveness of beef feedlots in Namibia and Botswana.

Utilization of Walvis Bay for exports

Meatco exports small volumes to Norway via Walvis Bay, but relies mainly on Cape Town. One reason given for not fully utilizing Walvis Bay is that sufficient cold storage facilities are not, while in Cape Town the port has specialized facilities for perishable exporters. Transport cost per kilometer from Windhoek to Cape Town is just 37 percent of the rate per kilometer from Windhoek to Walvis Bay. Again, this is due to backload opportunities from Windhoek to Cape Town[54]. Shipping fees and operational harbor costs are, however, also more competitive via Cape Town than Walvis Bay due to scale economies.

Harmonization at SADC borders

A need exists to harmonize import and export regulations between SACU and SADC. According to Hartlief in Namibia, the main focus should be to try and harmonize all border export documentation and also implement pre-clearing arrangements so that consignments can cross borders with minimum delays. Fresh meat (with a relative short shelf life) cannot be delayed on the border of the country of entrance, and therefore export of fresh meat will always be risky unless these rules and regulations and properly harmonized. This includes the harmonization of Sanitary and Phyto-Sanitary (SPS) regulations, payment of import duties and taxes, as well as the Rules of Origin. Within SACU effective trade is already taking place with clear SPS rules and Value Added Tax (VAT) payment structures in place. However this is not the case within SADC.

Beef exporters also experience problems with inconsistency in the interpretation of customs codes at SADC border posts leading to delays; such delays are particularly problematic for industries like beef and other agricultural sectors with perishable products.

Box 9: Progress in SPS harmonization in SADC

In 2008, SADC signed the SPS Annex to the SADC Protocol on Trade. The Annex establishes a Regional Coordinating Committee charged with adopting regional approaches to SPS issues in SADC. The Annex came into force with

[54] However, due to distances, the transport cost per kilogram of beef is still lower from Windhoek to Walvis Bay than to Cape Town.

ratification by the required number of Member States in late 2010, although South Africa only officially ratified it in May 2013. SPS issues in the region form a significant barrier for Member States in both intra- and extra-regional trade. The lack of harmonization in SPS regulations across SADC Member States is cited as a particular constraint to trade in agricultural products, which additionally impacts on food security. Furthermore, many SPS issues require regional approaches for successful implementation, which must be addressed. SADC launched the SADC SPS Coordinating Committee during 2011 with the assistance of the Southern African Trade Hub (SATH). Although a lot of work has already being done, it seems that businesses exporting beef to other parts of SADC is still experiencing problems

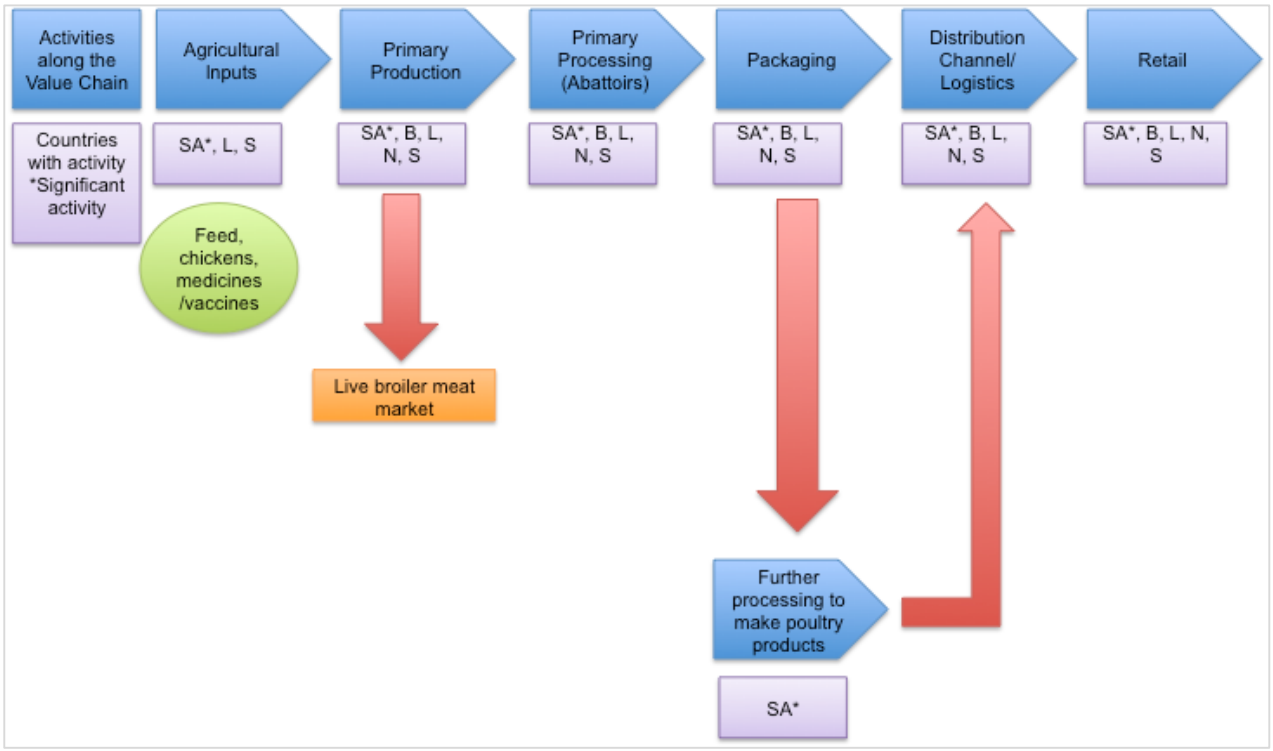
8. POULTRY

8.1 Structure of the Poultry Value Chain in SACU

Poultry value chain structure[55]

Broiler production, which is the raising of poultry for meat production, accounts for the vast majority of the poultry sector, in the case of South Africa broiler meat production accounts for almost 94% of all poultry meat production. The broiler value chain (Figure 27) commences with the agricultural inputs, including feed, and then progresses to primary production, which is the raising of the broilers. Many of the larger broiler producers operate under a contract system, where the producer owns the birds but contracts someone else to raise them, usually under strict guidelines regarding feed, living conditions, etc. Once the broilers are an appropriate size, they are sent to abattoirs, which could be at the farm or elsewhere, for slaughter. Then the broilers are usually cleaned, de-feathered, and packaged. From there the poultry products will either be sold as packaged poultry products to wholesalers or retailers, or sent to a manufacturer for further processing and broiler value addition (e.g., frozen meals, chicken nuggets, etc.). There is a parallel less formal system of production and sale of live chickens which are preferred in some segments of the market in Southern Africa (guaranteeing freshness, and with consumers who are still comfortable with slaughtering), in particular in rural areas.

Figure 27: Overview of poultry value chain in SACU



Source: Authors

[55] *Sources Include: A profile of the South African broiler meat value chain, 2011, p. 3. http://www.daff.gov.za/docs/AMCP/BroilerMVCP11-12.pdf ; Masuka, Micah. "An analysis of the broiler supply chain in Swaziland: A case study of the Manzini Region," Asian Journal of Agricultural Sciences, 15 November 2011. ISSN:2041-3890*

Overview of activities in SACU[56]

Table 14: Overview of SACU poultry (broiler) production

Country	Available information on scale of activity		
	Scale of primary poultry industry:	**Net production value of chicken meat:**	**Chicken meat exports (to world):**
Botswana	Total chicken population: Traditional farming: 1,341,230; Commercial: 157,272 Total:1,498,502 (2011)	US$8,120,280 (2011)	US$33,000 (2011)
Lesotho	No information available	US$2,222,080 (2011)	US$17,000 (2010)
Namibia	No information available	US$10,255,730 (2011)	US$2,953,000 (2012)
South Africa	**Chicken population**: 1,047,266,000 broiler chicks hatched in 2012, from 3.880 million broiler parents in rearing in 2012	US$2,116,109,010 (2011)[57]	US$15,146,000 (2012)
Swaziland	No information available	US$6,516,660 (2011)	US$48,000 (2012)

South Africa is the largest broiler producer in the Southern African region, producing 1,393 million kg in 2010. Broiler production accounted for 17.5% of the entire agricultural sector, the majority of the broiler meat being from chickens. In 2010, there were 27 feed companies with Meadow (Astral), Epol, and Afgri making up 75% of the market; the main breeders were Cobb, Ross, and Hybro; and then Early Bird (owned by Astral), Country Bird (owned by Astral), and Rainbow contracted a total of 207 broiler meat growers for their own operations. Rainbow and Astral Foods are the two largest producers, comprising 50% of the total market share. Both Rainbow and Astral Foods are involved in all stages of the value chain, including feed milling, down through processed chicken food items. They operate under the contract system for broiler rearing. Medium-sized players include Tydstroom Pluimveeplaas (Pioneer Foods), Daybreak (AFGRI), Chubby Chicks, and Rocklands (Sovereign Food Investments). Most of these companies are also vertically integrated following broiler rearing, down through broiler value addition.

Inputs (chicks) in BLNS

Botswana is 98% self-sufficient in chicks. **Namibia**, however, is quite dependent on South Africa for imports of chicks and fertile eggs, but is hoping NPI's hatchery will take over production. **Swaziland** only has one local supplier (National Chicks Swaziland) and so is still dependent on imports in cases of supply shortfalls.

---

[56] Sources Include: FAO stats Tradeap; A profile of the South African broiler meat value chain, 2011, p. 3,8. http://www.daff.gov.za/docs/AMCP/BroilerMVCP11-12.pdf ; SARS data; Regoverning Markets, Botswana: Trends in growth of modern retail and wholesale chains and related agribusiness, January 2008. http://web.up.ac.za/sitefiles/file/48/2052/7_%20Botswana_Trends%20in%20Agri%20Retail%20&%20Wholesale%20Chains.pdf ; Botswana Agricultural Marketing Strategy (2011-2016), September 2011, p.13. http://www.moa.gov.bw/downloads/botswana_agricultural_marketing_Strategy.pdf ; "Namibia introduces poultry meat import quota." The Poultry Site. 9 May 2013. http://www.africanbusinessreview.co.za/reports/tswana-pride ; Immanuel, Shinovene. "Poultry protection bites," The Namibian. 19 November 2013. http://www.namibian.com.na/indez_print.php?id=6252 ; QA Swaziland Poultry Processors, 13 December 2012. http://www.agribusiness.co.sz/index.php/joomla/livestock/139-qa-swaziland-poutry-processors?tmpl=component&print=1&page= ; Masuka, Micah. "An analysis of the broiler supply chain in Swaziland: A case study of the Manzini Region," Asian Journal of Agricultural Sciences, 15 November 2011. ISSN:2041-3890.; Matope, Tsitsi, "Mafeteng co-op breaks new ground." 7 June 2013. http://publiceye.co.ls/?p=2564 ; World Bank, Lesotho's Agricultural Sector Assessment, http://siteresources.worldbank.org/INTLESOTHO/Resources/Agric_Policy_Note_Lesotho.pdf, p.18

[57] FAO stats

Recently there was a request to impose a levy of 5-15% on imported broiler chicks, but it was rejected because National Chicks Swaziland had not been able to produce enough supply for the local market[58]. Astral indicated that they supply chicks on an ad hoc basis to BLNS countries, when these countries are experiencing a shortfall.

Between October 2012 and September 2013 South Africa supplied BLNS with 1,558,785 kg of fertilised chicken eggs for incubation at a value of over R49 million, whereas South Africa only imported 3,675 kg of fertilised chicken eggs for incubation from BLNS. There appear to be a range of reasons why large-scale broiler productions buy in day-old chicks rather than raising their own.

- It is more efficient than setting up their own operations for breeding hens
- A diversity of genetic stock is encouraged to support biosecurity and reduce the chance of disease outbreaks; this is harder to achieve on site
- In contract growing arrangements, chicks are provided to growers, along with feed, medication and technical advisors[59]
- A small number of multinational companies retain the intellectual property of genetic material for high yield commercial broilers. Three companies dominate global broiler breeds, namely Cobb-Vantress, Hubbard and Aviagen. (e.g. in Mozambique Cobb-Vantress accounts for 70% of egg imports and Hubbard 30%)[60]. In Sub-Saharan Africa, Cobb lists official distributors only in South Africa and Zambia; however, "Irvine's Day Old Chicks" in Zimbabwe does (or used to) supply Cobb parents and day-old chicks.

Primary production and processing in BLNS

Botswana produces almost enough broiler meat to be completely self-sufficient. The Government of Botswana has an import ban in place to protect the entire poultry meat industry, which has resulted in growth in the industry. There are now 10 large producers, including Molep's Poultry, Tswana Pride, and Richmark's Poultry. The ban has been detrimental for consumers, however, as they are forced to pay about 150% more than the regional average for their broiler meat. As in the dairy industry (see Chapter 9), high feed prices are significant constraint for broiler farmers in Botswana. The Government of Botswana has imposed non-tariff barriers, such as a quantitative import restriction, on coarse grains used for animal feeds, which has increased the cost of primary production in both the dairy and broiler industries. Tswana Pride is the largest producer in Botswana, and is involved in nearly every stage of the value chain after agricultural inputs. Tswana Pride does not rear chickens in-house, but rather uses contract growers and supports them with technical assistance. Tswana Pride has vertically integrated the other stages of broiler processing and supplies its chicken to major fast food companies like KFC and Nando's. They have stated an intention to export to the EU, and have designed their abattoir accordingly[61].

The **Namibian** broiler industry is in its early stages, but the opening of the Namib Poultry Industry's (NPI) facilities was a significant milestone. NPI took almost a decade of planning by NMI Namibia Group, but it finally opened in late 2011 and is now the main producer in Namibia. NPI is completely vertically integrated across the entire value chain following agricultural inputs. NPI breeds and raises broilers, slaughters, processes, and packages as one of three brands: Country Choice Chicken, Realgood Chicken, and NamChicken, which it sells to retailers as well as directly to the consumer. NPI is also producing other

[58] *http://en.africatime.com/mali/articles/stakeholders-reject-levy-imported-chicks ,*
http://www.swazilandreview.com/agriculture.html Lesotho also depends heavily on chick imports)
[59] *http://maxwellsci.com/print/ajas/v3-492-499.pdf*
[60] *FAO (2013)*
[61] *http://fmb.co.bw/Tswana%20Pride%20eyes%20Europe%20Union%20market.html*

animal feeds from its waste materials, and is looking to begin production of fertiliser. Currently, NPI produces around 2,000 tons of poultry products for the Namibian market. To protect Namibia's growing broiler industry, the Namibian government has instituted import permits for poultry products, restricting the total imports to 600 tons per month. Those wanting to import chicken-based poultry products (e.g., fresh whole chickens, Individual Quick Frozen chickens) have to apply for a permit; however, products like chicken wings and chicken nuggets, which are not produced locally, will be allowed. While protection has supported the growth of NPI, it has also allowed it to become a monopoly, with high prices being passed onto the consumers.

According to **Swaziland** Poultry Processors (SPP), Swaziland produces enough broiler meat to meet domestic demand and even have some surplus that could be exported. The Swazi government's decision to add the VAT to poultry products, along with constant increases in feed prices (most of which is at least partially imported as raw grain), have led to a decline in sales, and subsequently, demand. SPP is one of the dominant processing companies, slaughtering around 23,000 chickens per day. The SPP has an interesting system that involves working with local partners to supply agricultural inputs. SPP works with local farmers on a contract basis, supplying them with chicks from National Chicks, their sister company, and then supplying feed and medication from Feed Master, Crane Feeds, or Arrow Feeds. Feed Master is a local company that produces broiler feed and vaccines. The contract farmers follow strict rearing requirements from SPP, and then once they are 35 days old, SPP retrieves them from the farm and pays the farmer based on the chickens' weight, minus the cost of the chicks, feed, and medication. SPP slaughters the chickens, cleans, and packages them. Valley Farm is a vertically-integrated producer that rears, produces, and sells broiler products directly to the market.

Lesotho does not appear to have significant activity in its commercial broiler industry. There is one cooperative, Mafeteng Poultry Cooperative Society, which keeps about 1,400 chickens and was recently given a grant from the Smallholder Agriculture Development Programme to purchase an abattoir and cold storage facility that would allow them to slaughter, process, and package their broilers. The Government of Lesotho also had some plans to involve the Basotho chick plant in integrated poultry projects and the rehabilitation of the abattoir.

8.2 Opportunities and Constraints to Global and Regional Poultry Value Chains[62]

Whilst the BLNS countries are able to produce broiler meat, they have been unable to compete successfully with South Africa because their cost of production is so much higher than South Africa's. Feed cost is the single biggest constraint to development of the poultry sector in the BLNS. Feed cost is estimated to account for around 70% of broiler production costs in South Africa – higher feed costs in BLNS countries are likely to make their production uncompetitive. Another issue to note is the higher costs of temperature regulation in Namibia and Botswana. According to Astral, it would be more expensive to run hatcheries and broilers in these two countries because the extreme temperatures mean the cost of regulating the temperature increases overall costs. Other barriers to increased production include access to capital, appropriate feed and healthy chicks, processing equipment, cold storage and lack of industry skills. South Africa has the most reliable access to all of these requirements.

[62] *Sources Include: http://www.ers.usda.gov/topics/animal-products/poultry-eggs/background.aspx#.UtNkXRbxB8s ; https://www.ifama.org/events/conferences/2011/cmsdocs/2011SymposiumDocs/323_Symposium%20Paper.pdf*

In addition, as seen with Botswana, government policies to protect one industry (e.g., a requirements that 70% of grain be produced locally to protect the cereals industry) have hindered the broiler meat industry's development, since the increased costs have been passed down to the consumer who is unable to absorb the extra costs. Broiler meat demand is relatively elastic in these countries, and if the price increases too much, consumers will decrease or discontinue purchases.

Finally, market size remains a significant barrier to cross-border investment in the BLNS poultry sector. Given the cost to establish investments, the small scale of domestic markets is not sufficient to sustain viable investments.

BLNS countries would need to decrease costs considerably in order to serve their local markets and it would more than likely need to implement subsidies or import restrictions. Even in the case of South Africa, where economies of scale are far more favourable, there is strong international competition from other countries, in particular Brazil which has massive economies of scale. In the poultry meat category, for example, there has been particular pressure from EU and Brazilian imports and this has undercut some of the local producers. The South African Poultry Association has in fact requested industry protection from the government and the dti responded positively (in Sep 2013) with increase tariffs on imported non-EU chickens[63]. Similar restrictions in BLNS will be needed to develop the sector in those countries.

There is some market for value-added poultry products in BLNS countries as they currently import a variety of products from South Africa, and these imports have not been restricted. In Botswana, for example, Further Processed Chicken (FPC) imports have been increasing and account for the majority of poultry imports, demonstrating a potential opportunity for the development of a local industry[64]. Even if primary production did not increase in BLNS countries, they could still become involved in downstream activities as the channels for moving broiler meat across borders is already in place and there is demonstrated demand for further processed products. However, it is unclear whether or not they could produce products from imported poultry at a price competitive to products made in South Africa.

[63] *http://www.bdlive.co.za/business/agriculture/2014/02/06/maize-imports-adds-to-woes-of-small-producers*
[64] *http://www.lrrd.org/lrrd23/7/more23163.htm*

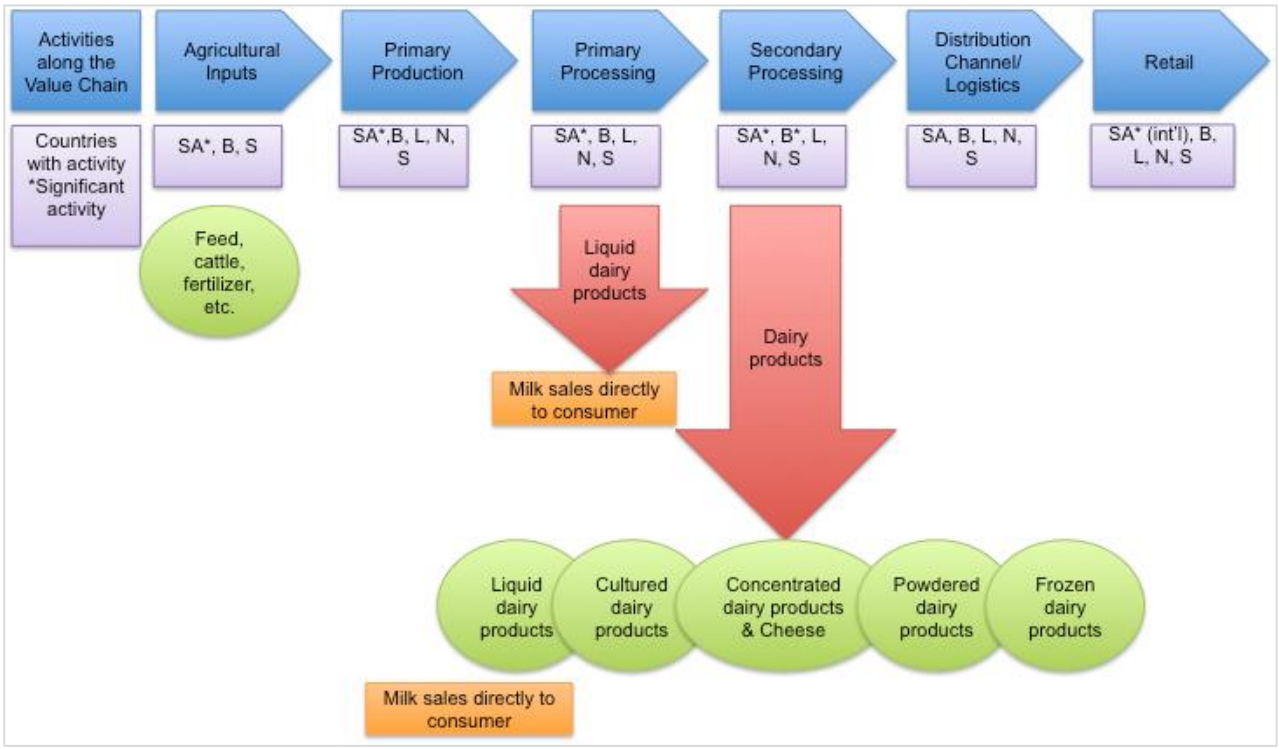
9. DAIRY

9.1 Structure of the Dairy Value Chain in SACU

Dairy value chain structure[65]

The dairy value chain begins with agricultural inputs, including livestock, land, labour, animal feed, etc. (Figure 28). Primary production activities include raising livestock (in particular dairy cattle) and eventual collection of the milk. After collection, the raw milk moves to the processing stage, which can either occur on the farm or elsewhere. The major players in the Southern African dairy industry generally begin their involvement at this point. All milk must first be chilled, and then it usually undergoes pasteurisation, clarification, separation and standardisation, and homogenisation during primary processing. At this stage, milk, for which the end use is consumption as milk, will usually be bottled, packaged, and distributed either to a wholesaler, retailer, or even directly to the consumer. The rest of the milk will be separated into five categories: liquid dairy products (e.g., flavoured milk, UHT), cultured dairy products (e.g., yoghurt, amasi), concentrated dairy products and cheese (e.g., butter, cheese), powdered dairy products (e.g., milk powder, whey powder), and frozen dairy products (e.g., ice cream), and will each be processed differently. Following secondary processing, the product is packaged and distributed to wholesalers or retailers in the domestic market, or exported for international consumption.

Figure 28: Overview of dairy value chain in SACU



Source: Authors

[65] *Sources Include: The SA Food Processing Industry, 2011, p.43.*
http://southafrica.nlembassy.org/binaries/content/assets/postenweb/z/zuid_afrika/netherlands-embassy-in-pretoria/import/the_embassy/economic-affairs/the-sa-food-processing-industry.pdf

Overview of activities in SACU[66]

Table 15: Overview of SACU dairy production

Country	Available information on scale of activity			
	National dairy herd	**Primary milk output**	**Dairy production output (value)**	**Domestic dairy demand**
Botswana	~6,000 cattle (2009)	115,500 tons (2012)	US$36,043,000 (2012)	62m l milk
Lesotho	~6,000 cattle (2011) ~1,200 farmers (2011) herd size generally 3 to 6 cows	39,295 tons (2012)	US$ 12,262,000 (2012)	No data available
Namibia	4,500 cattle	118,000 tons (2012)	US$ 36,823,000 (2012)	No data available
South Africa	~1m in 2011 (DAFF) Estimated # commercial dairy farmers~4,000 (DAFF) of which MPO estimates 2,000 produce 95% of milk for commercial processing) (avg. herd size 238);	2.35-2.65 billion litres p.a. 3,368,161 tons (2012)	US$1,319,784,430 (2011)	2.3-2.7 billion litres p.a.
Swaziland	~4,000 (~0.5% of national herd overall) 1996 National Agricultural Census	Approx. 30million litres 42,500 tons (2012)	US$14,224,680	Approx. 52 million litres (2010)

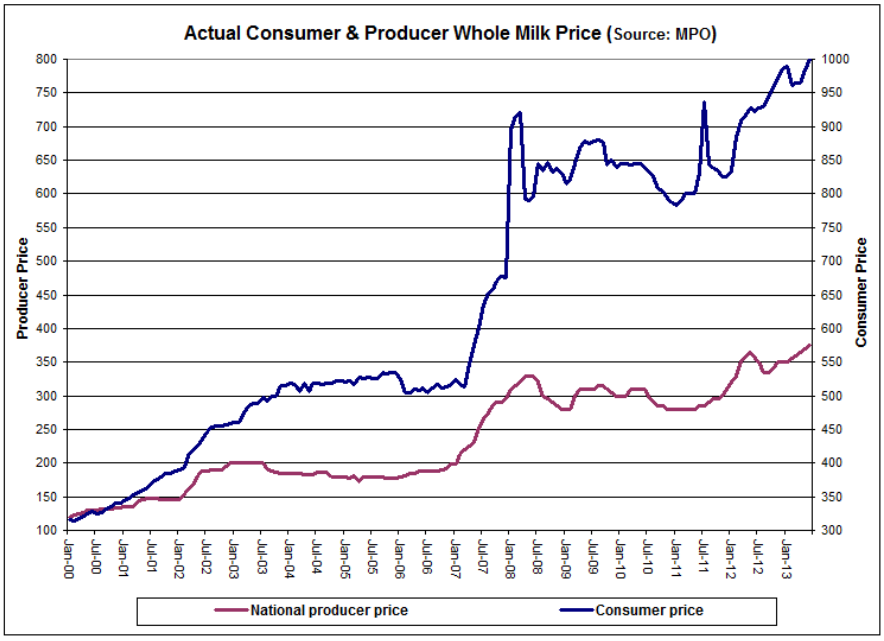
South Africa is the largest producer of dairy products within the Southern African region, and the industry was valued at $2,798.1 million in 2012, with growth in value expected to reach $3,409 million in 2017. Even

[66] *Sources Include: FAO stats, SA DAFF, Dairy Value Chain report, 2012; http://www.tabj.co.za/food_drink/namibiadairies.html ; Marketline, Dairy in South Africa, September 2013, p. 3, 10; SARS data; Morula, Morula. "Dairy products shortages exist." Sunday Standard 20 August 2012. http://www.sundaystandard.info/article.php/email.php?NewsID=14807; Nkani, Portia, Botswana Gazette, 10 October 2013. http://www.gazettebw.com/?p=5471; "Botswana: Trends", Regoverning Markets, 2008; http://www.lrrd.org/lrrd23/3/more23068.htm; The Monitor, "Delta Dairies: where did the P300 million go?" 21 Oct 2013. www.mmegi.bw/index.php?aid=2108;"Namibia: Trends", Regoverning Markets, 2008. http://web.up.ac.za/sitefiles/file/48/2052/8_%20Namibia_Trends%20in%20Agri%20Retail%20&%20Wholesale%20Chains.pdf; Kaira, Chamawe. "Namibia Dairies wants milk import restrictions." All Africa, 16 July 2013. http://allafrica.com/stories/201307160502.html; http://www.safpi.org/news/article/2012/south-africa-stifles-local-dairy-industry; http://allafrica.com/stories/201308071411.html; http://www.fao.org/docrep/003/x8731e/x8731e03.htm; Dlamini, Bongiwe Porrie. "Analysing the competitiveness of the agribusiness sector in Swaziland," 2012, p. 17. http://upetd.up.ac.za/thesis/available/etd-11082012-131004/unrestricted/dissertation.pdf; Swaziland Business Yearbook, 2013. http://www.swazibusiness.com/sbyb2007/ ; "Parmalat", Sunday Standard, 1 April 2013. http://www.agribusiness.co.sz/index.php/joomla-overview/digital-magazines/issue-6-february-2013/189-parmalat-urges-swazis-to-produce-more-milk ; Swaziland Business Yearbook, 2002 http://www.swazibusiness.com/sbyb_new/manuf.html ; Tlali, Caswell & Mantoetse Maama. "Dairy farmers to lobby MPs for greater autonomy." Sunday Express. 24 August 2013. http://sundayexpress.co.ls/?p=9077 ; "Agric Minister launches Machache dairy farmers milk collection centre", 25 February 2011. http://www.lena.gov.ls/index.php?model=headline&function=display&text_id=26371 ; Nkani, Portia. "Govt took hasty decision in prioritising dairy-BOCCIM." Botswana Gazette, 10 October 2013. http://www.gazettebw.com/?p=5471 ; http://www.lrrd.org/lrrd23/3/more23068.htm; http://www.swazilandreview.com/agriculture.html*

outside of the Southern African region, South Africa is a significant contributor to the dairy industry. For instance, within the entire Middle East and Africa region, South Africa accounts for 31% of the dairy market value. South Africa is involved in all aspects of the dairy value chain, including downstream activities, and produces a wide variety of dairy products for the entire Southern African region. Over the past year[3], South Africa exported over 19.4 million kg of yoghurt, 859,209 kg of butter, and over 6.2 million kg of locally produced cheese, at a total value of over 353 million Rand. Milk accounts for the majority of the market at 45.9%, followed by spreadable fats (24.5%), cheese (20.0%), yoghurt (8.2%), and soy products (1.4%). The large dairy producers in South Africa source most of their milk from independent farmers and become involved at the primary processing stage, continuing their involvement all the way through the value chain until the product is distributed to retailers, Fair Cape is an exception, (with a strategy to vertically integrate, sufficient scale with a collective herd of 1,000, technical expertise and product innovation, as well as a strong partnership with Woolworths). Since the majority of the large dairy producers are multinational organisations, many export their South African-made products elsewhere in the region. One example of this is Parmalat SA, which does much of its processing in South Africa, but markets and distributes its products throughout the region.

South Africa's dairy sales are concentrated, with 3-4 retailers accounting for 75-80% of the market; there are four main processors and around 2,000 farmers. As a result, retailers and processors are price setters, whilst producers are price takers, as evidenced by the growing gap between consumer and farm-gate milk prices.

Figure 29: Evolution of milk producer and consumer prices in South Africa (Jan '00- Jan '13)



Source: MPO

Cost competitiveness in dairy production requires complex decision-making around animal selection and feed strategies, aiming to balance input costs versus yields, as shown in the table below.

[3] *Data aggregated from November 2012 – October 2013*

Table 16: Illustration of cost structure and margins for a South African dairy producer

	Cow A	Cow B
Milk yield in litres	12	25
Pasture intake in kg DM	12	12
Kg of concentrate fed	0	10
Income @R3,50/ℓ	R42,00	R87,50
Minus fodder cost at R1,00/kg	R12,00	R12,00
Minus concentrates @ R2,30/kg	R00,00	R23,00
Feed cost/ℓ	R1,00	R1,40
Profit/ℓ	R2,50	R2,10
Feed margin per cow	R30,00	R52,50

Cow A = pasture-based cow; Cow B= partial TMR cow

Source: Malcolm Stewart-Burger, 5 November 2012, Between a rock and a hard place. http://www.farmersweekly.co.za/article.aspx?id=30932&h=Between-a-rock--a-hard-place

South Africa supplies the majority of milk used by Botswana, Lesotho, Namibia, and Swaziland.

Botswana's dairy market is heavily reliant on milk and milk product imports from South Africa, and is somewhat involved in downstream activities. Despite dairy being listed as a priority sector in the national government's Economic Diversification Drive strategy, milk production in 2011-2012 was an estimated 3m litres, meeting less than 5% of national demand (62m litres). Two major producers, Sally Dairy and Clover Botswana, import 97% and 75% of their milk respectively from South Africa as of 2008; A more recent example looks at BLNS as a whole; between November 2012 and October 2013, 63% of bulk milk and cream imported from South Africa across BLNS was UHT and 37% was fresh. Some efforts have been made to develop the national dairy industry, including the imposition since 2008 of 40% tariff on imported UHT milk, including from South Africa[67]. But so far these efforts has met with only limited success. In 2009, the year following the UHT milk tariff, 12.4 million litres of UHT milk and 26.2 million litres of raw milk were still being imported. The other major dairy company, Parmalat, did not process dairy products in Botswana until recently, opting to distribute its South African-made products instead. It built a UHT processing plant in Botswana following the tariff levying. Clover has also recently established a milk processing facility in Botswana, in part due to milk import tariffs

Delta Dairies is another large producer whose success the dairy industry has been relying on. Delta Dairies is funded by the Citizen Entrepreneurial Development Agency's (CEDA) Venture Capital Fund (CVCF). However, at the time this report was written, Delta Dairies was having financial issues, and required multiple bailouts from CEDA.

The Botswana Confederation of Commerce Industry and Manpower (BOCCIM) cites a lack of specialised skills and knowledge surrounding dairy farming and the high start-up costs as reasons for why more farmers have not entered the market. The Botswana dairy industry cannot develop further until the problem of high prices and limited supplies of quality feed for cattle is resolved (given that feed can

[67] The SACU Agreement allows member countries, in particular BLNS, to levy extra duties on specific products to protect "infant industries", and can ban imports of "controlled" products including fresh milk when domestic production is sufficient to meet demand.

typically accounts for 60 to 75% of dairy farmers' total costs in South Africa, and is therefore likely to be even higher in Botswana)[68].

Namibia's dairy value chain has similarities to Botswana, with over 25,000 tons of milk and milk equivalents imported annually. However, unlike Botswana, Namibia's main dairy producer, Namibia Dairies, has begun to vertically integrate the production process into its business operations with the opening of the !Aimab Superfarm. Currently, !Aimab has 1,500 cows with plans to increase to 2,000 in the next few years. Namibia Dairies is involved in downstream activities, such as secondary processing, as it produces long life milk, Oshikandela, and yoghurt with milk by-products in Windhoek. The company also tried to produce cheese locally, but stopped because it could not compete with imports from South Africa. Clover Dairy (Namibia) (Pty) Ltd. also operates in Namibia, but it does not produce any dairy products in country.

In an attempt to further develop the Namibian dairy industry, there has been pressure to impose quantitative restrictions on the amount of dairy products that can be imported. Between 2000 and 2011, Namibia had a 40% import tariff on milk products but it had not been renewed after its expiration. In August of 2013, the Ministry of Trade and Industry approved a request to impose quantitative import restrictions through a permit system on dairy products that include fresh, UHT, ESL, buttermilk, curdled yoghurt, and other fermented dairy products. One of the Namibian dairy industry's claims is that South African producers are dumping their extra milk products into the Namibian market at very low prices (e.g. at a price 20% less than in South Africa), making it difficult for local companies to compete. Namibian producers allege that South African milk products contain growth hormones, genetic enhancers, and medications, which help to increase production and decrease costs, but are illegal for producers to use in Namibia due to its trade arrangements with the European Union in relation to beef imports with provisions that extend to dairy cattle.

Swaziland also imports the majority of its milk from South Africa, but it issues import permits based on what the Swaziland Dairy Board decides it needs to import. Demand is approximately 52 million litres[69] per year, with the national herd's milk production only being able to supply around 8.4 million litres. Local milk production is heavily supported by the Swazi government with one-third of production occurring on Swazi Nation Land (SNL) and the rest on Title Deed Land. The Swazi dairy value chain is slightly different than that of the other Southern African countries due to the significance of informal market sales; despite this, multinational companies like Parmalat are involved in downstream activities. For raw milk, consumers can purchase fresh and sour milk directly from individual dairy farmers. Such an arrangement is beneficial to both the dairy farmers and the consumers because prices for the consumer are lower than in the formal retail market, and prices are higher for the dairy farmer than offered by commercial processors. For this reason, 68% of total milk production is sold on the informal market. Dalcrue Agricultural Holdings (Pty) Ltd. is one of the main milk producers, and is 100% owned by Tibiyo Taka Ngwane, a parastatal entity. Whilst Dalcrue raises its own herd of cows, most of its milk is sent to local processors; however, consumers can also directly purchase milk and milk products at the farm. Parmalat Swaziland, on the other hand, is only directly involved in the value chain stages that follow production. Parmalat imports 170,000 litres of milk annually from South Africa; Parmalat is currently working with the Swaziland Dairy Board to encourage local milk production. In a change from how it has entered other African markets, Parmalat has always manufactured a variety of dairy products within Swaziland. Parmalat Swaziland entered the market after taking over the SDB factory in 1999.

---

[68] MPO estimates
[69] http://www.swazilandreview.com/agriculture.html

Lesotho is also heavily reliant on raw milk and dairy product imports from South Africa, as Lesotho currently only produces fresh and sour milk and is not involved in further downstream activities. Lesotho Dairy Products (Pty) Ltd. (established by the Lesotho government and the Canadian International Development Agency) and Denmar Dairies (Pty) Ltd. are the two largest commercial dairies and dairy processors in the country. However, they have both been under scrutiny in the last few years related to business practices and claims from local dairy farmers over ownership of Lesotho Dairy Products. In an effort to decrease its reliance on South Africa, the Lesotho government opened the Machache Dairy Farmers Milk Collection centre, where independent dairy farmers can bring their raw milk for collection and eventual sale to Lesotho Dairy Products. Machache collects 1,600 litres per day and dairy farmers who supply the collection centre are paid around M25.02 per month.

9.2 Opportunities and Constraints to Global and Regional Dairy Value Chains

Agri-climatic conditions and impact on feed

There are a variety of factors which contribute to the success or failure of a country's dairy industry including climate, adequate skills and labour for tending to the cattle, land for grazing, market size, and access to high quality, low cost dairy cattle feed. Climate and access to adequate water sources either through irrigation or reliable rainfall is one of the most critical factors. South Africa and Swaziland's climates are conducive to primary dairy production, but Botswana and Namibia suffer from a very hot and dry climate with inadequate rainfall and little to no irrigation infrastructure; Lesotho also has no irrigation infrastructure. The climate is especially important for growing the essential feed for the dairy cattle, if a country cannot produce the feed and grazing plants itself it must import the feed, often at high cost. Feed costs include both forage (which may or may not be produced on farm) and concentrate (providing protein, energy and minerals from numerous sources[70]). While it would make sense for farmers to vertically integrate feed production, few have the scale or conditions to be able to do this. Botswana has already cited the high cost of feed as one of its barriers to further increasing primary dairy production activities. Namibia also has to import feed, and its population is quite small, so it may not make economic sense to heavily invest in primary production.

Other supply side factors

In the case of Swaziland, while its climate is well suited to dairy farming and there is a strong local market for dairy products, development of the dairy sector has been constrained by a number of other factors including[71]:

- Smallholder structure of farming lacks scale and bargaining power
- Poor genetic resource base (need to upgrade genetic material of dairy cattle to enable higher yields)
- Shortage in quality and quantity of feed, and cost of feed
- Access to financing for the equipment and land
- Poor management practices
- Inadequate skilled labour

[70] Inputs can be both plant and animal-based, as well as minerals e.g. maize, soya, oilcake from various oilseed crops, brewers grain residue from barley or sorghum, oats, citrus pulp, Lucerne, lupin, molasses, blood meal, bone meal, bran, chicken litter, fish meal, urea, limestone

[71] See N. Simelane (2011), An assessment of the role of co-operatives in smallholder dairy production and marketing in Swaziland, M Sc. Agric Dissertation for University of Pretoria

- Poor market infrastructure
- Low raw milk prices

However, all of these issues, unlike climate, can potentially be addressed through support. South Africa's Milk Producers' Organisation (MPO) was recently in Swaziland having been requested them improve their production capabilities. Dairy coops have been proposed as a potential mechanism to overcome some of these barriers.

Opportunities and constraints for secondary processing

There may be some opportunities from further secondary processing for Botswana and Namibia, importing UHT milk from South Africa if needed, or through fully vertically integrated production and retail partnerships to serve the local market (a model similar to the Fair Cape model in South Africa). Despite preferential market access, there have been very limited dairy exports to the EU from either South Africa or BLNS countries, and it seems unlikely that they will be able to compete given logistical costs and the absence of significant agricultural subsidies.

Trade policy restrictions which aim to protect and build local dairy industries have the effect of reducing competitiveness of processors (as they must purchase high-priced milk in internal markets or pay to import raw milk from South Africa). This potentially undermines the possibility of developing regional supply chains.

Finally, the spread of South African retailers across the region (e.g., Shoprite) entrenches the position of South African products, as the retailers tend (at least initially) to stock the products from South Africa. In SACU this is aggravated further by the distribution strategies of retailers, specifically the treatment of the region as a single market and the use of regional distribution centres (normally based in South Africa).

SECTION 3: MINERALS AND TOURISM

This section presents an overview of three value chains in the minerals sector:

- Chapter 10: Precious metals
- Chapter 11: Diamonds
- Chapter 12: Coal

This is followed in Chapter 13 by an overview of the tourism value chain in SACU – this represents a services sector but also another key natural-resources driven sector that is traded regionally and globally.

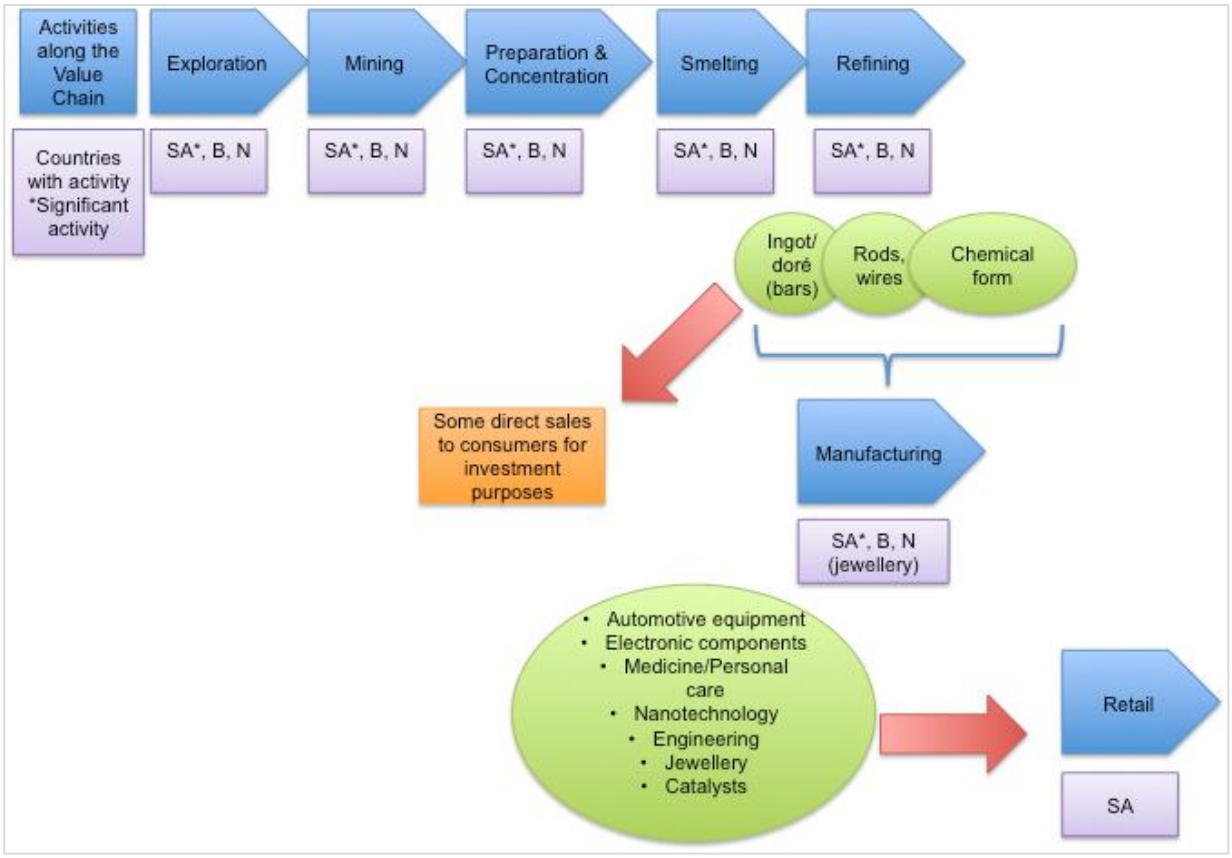
10. PRECIOUS METALS (GOLD / PLATINUM / SILVER)

10.1 Structure of the Precious Metals Value Chain in SACU

***Precious metals value chain structure*[72]**

The precious metals value chain is illustrated in Figure 30, along with indications of participation across SACU countries.

Figure 30: Overview of precious metals value chain in SACU



Source: Authors

The value chain begins with exploration activities to determine the type, quantity, and quality of elements that might be mined. Once the mining company decides there is some value worth exploring, it will begin establishing the mine. Mining will then commence, followed by preparation for processing, which could include crushing and milling, flotating and drying, depending on the type of mineral. These activities result in the concentration of the ore. Some companies end their activity at this stage, but others are involved further down the value chain. Hydrometallurgy, pyrometallurgy, or electrometallurgy occur next – for precious metals, most of them go through pyrometallurgy or smelting. Smelting is the process of heating the ore using an oxidizing agent or reducing agent to obtain the actual element, separated from everything else. Sometimes the liquefied element will then be made into bars before being transferred to a refinery, which can either be vertically integrated into the company's activities or sold to another company. At the

[72] *Sources Include:* http://courses.chem.psu.edu/chem112/spring/LSVnotes/29%20Metallurgy.pdf ; http://global.britannica.com/EBchecked/topic/549533/smelting

refinery, the remaining impurities are extracted and the metal is in its pure form; the resulting outputs depend on the end use of the metal and can range from rods and wires to powders and ingots. Most mining companies' involvement ends here, and the outputs are sold to investment companies or various manufacturers, where the metal is used as an input for a variety of items (e.g., jewellery, engineering products, medicinal/personal items, automotive equipment, electronic components, nanotechnology, catalysts, etc.). Following this, the items are sold to other manufacturers as inputs, to wholesalers, or directly to retailers.

Overview of activities in SACU[73]

Table 17: Overview of SACU precious metals production

Country	Available information on scale of activity
	Precious metals kg/oz produced p.a.:
Botswana	Gold: 1,800kg (2011) No official productions stats for silver and PGMS but palladium, platinum, and silver were produced, and exported in nickel-copper-cobalt matte; copper and nickel cathodes
Lesotho	0
Namibia	Gold: 2,053kg (2011) Silver: 9,000kg (2011)
South Africa	Gold: 180,184 kg Silver: 73,180 kg PGMs: 288,850 kg
Swaziland	None

South Africa is the largest producer of gold, silver and Platinum Group Metals (PGM) in the region, and its PGM production is one of the largest in the world. In 2011, South Africa produced 180,184 kg of gold, 288,850 kg of PGMs, and 73,180 kg of Silver. PGMs are primarily composed of platinum, palladium, rhodium, ruthenium, osmium, and iridium. PGMs are the most significant precious metal that South Africa mines, and its platinum, palladium, and rhodium production was valued at $13.3 billion in 2011, increasing to $15.4 billion in 2016. Whilst the global deficit for platinum increases from 265,000 ounces to 340,000 ounces, South Africa's production is only expected to increase about one percent. Unfortunately, South Africa is unable to maximise its potential in platinum mining due to a range of issues, including labour issues, cost structure for mining the deposits, and insufficient investment in the industry. Anglo American Platinum Limited, Lonmin, Impala Platinum Holdings Limited, and Aquarius Platinum Limited are the main PGM producers; Anglo American Platinum Limited is the largest, producing around 40% of the world's platinum. Gold Fields Ltd., Harmony Gold Mining, and Anglo Gold Ashanti are the main gold producers. Silver is not actively mined, but rather it is found in the process of mining for the other precious metals.

South Africa is involved in all stages of the value chain, although the main players in the mining and processing stage are distinct from those in the manufacturing stage. Anglo American Platinum, Implats,

[73] *USGS, South Africa, 2011. http://minerals.usgs.gov/minerals/pubs/country/africa.html ; Marketline, Platinum-group metals in South Africa, 2011, p. 2,32; http://www.iol.co.za/business/news/sa-will-miss-platinum-chance-1.1606233#.UqB2qhZMl8s ; USGS, Namibia, 2011. http://minerals.usgs.gov/minerals/pubs/country/africa.html ; USGS, Botswana, 2011. http://minerals.usgs.gov/minerals/pubs/country/africa.html ; http://www.brisbanebusinessnews.com.au/article4638/DISCOVERY%20MINING%20IN%20BOTSWANA.html*

Lonmin, Gold Fields Ltd., and Anglo Gold Ashanti have vertically integrated aspects of the value chain until refining. Implats also provides smelting and refining services for other mining companies through Impala Refining Services. Aquarius is the only major PGM producer that is not vertically integrated; it sells its PGMs prior to smelting to either Rustenberg Platinum Mines Limited (owned by Anglo American Platinum) or Impala Platinum through a life-of-mine contract. The reason for these agreements may have something to do with the fact that one of Aquarius' Platinum Mines is located on the Rustenberg Platinum Mine. Aquarius also owns a majority stake in Platinum Mile Resources, which is on the Rustenburg Platinum Mine and operates a facility for tailings retreatment. Rand Refinery, which was set up by the South African Chamber of Mines, provides smelting, refining, and production of value-add gold, silver, and PGM products for mining companies that do not have their own facilities. In terms of manufacturing, even though much of

South Africa's precious metals are exported, although are still some manufacturing activities in-country. The Catalytic Convertor Interest Group estimates that automotive catalyst production adds value to around 15% of locally mined PGMs. There is also some locally platinum jewellery manufacture, although this is limited in scale. Johnson Matthey, Silplat, Heraeus Precious Metals, and BASF Catalyst are some of the major players. Related support initiatives have included eligibility of automotive catalysts under the Motor Industry Development Plan (MIDP), and subsequent special provisions under the new Automotive Production Development Programme (APDP). However, benefits offered to local component manufacturers are generally seen as lower under the APDP than under the MIDP (under the MIDP government's financial incentive for exported production was based predominantly on the value of local content, including material). Under the APDP, the system moved to one which rewards any qualifying automotive production related directly to its level of manufacturing value addition). Despite lobbying by the Catalytic Convertors Interest Group and NAACAM as well as the Platinum Beneficiation Committee, the catalytic converter industry is struggling. Company representatives have stated that the industry will decline by 5% a year over the next three to four years and suggest that some manufacturers are only producing at 50% capacity, despite the exchange rate encouraging exports[74].

Namibia is the second largest producer of precious metals in SACU with 2,053 kg of gold and 9,000 kg of silver in 2011. Anglo Gold Ashanti Ltd. operates the only industrial gold mine, Navachab mine. While its gold production is modest, Anglo Gold Ashanti Ltd. was looking at expanding its operations. Anglo Gold Ashanti Ltd. is present across the value chain, except for manufacturing and retail activities. Activities at the Navachab mine include crushing, milling, carbon-in-pulp and electrowinning processing. Dundee Precious Metals Tsumeb (formerly known as Namibia Custom Smelters), also produces some silver and gold as a result of its blister copper production. Rosh Pinah Zinc Corporation also produces a small amount of silver through its other mining operations.

Botswana has both gold and silver resources. IAMGOLD, which is not operating in Botswana currently and recently delisted from the stock exchange, produced 1,800 kg of gold in 2011. When IAMGOLD decided to pull out of Botswana, a consortium pulled together to extend the life of the mine and now Galane Gold is operating gold mining and processing facilities in Botswana. Discovery Metals Ltd. began mining copper and silver with the Boseto Project in 2012. Discovery mined 114,405 oz (Dec 2012 Quarter),185,756 oz (Mar 2013 Quarter), 213,482 oz (June 2013 Quarter), and 196,816 oz (Sept 2013 Quarter) of silver in concentrate. In terms of manufacturing, Botswana hopes to see an increase in jewellery production companies due to the move of the DTC and government beneficiation initiatives.

---

[74] http://www.engineeringnews.co.za/article/catalytic-converter-industry-dying-platinum-tax-possible-saviour---naacam-2014-02-17

Lesotho does not produce any significant amount of precious metals, but Lesotho Jewellery manufactures a variety of jewellery brands using precious metals. Lesotho Jewellery is majority-owned by the Government of Lesotho.

Swaziland is not actively involved in any activities within the precious metals value chain. However, with the development of its diamond industry there may be some potential for cutting, polishing and jewellery production in the future.

10.2 Opportunities and Constraints to Global and Regional Precious Metal Value Chains

Presence of a precious minerals in a country does not necessarily have significant bearing on the location of downstream activity given the very high value-volume ratio of most minerals. It is very common for the minerals or metals to be mined in Africa and sent to Asia, Europe, Oceania, or the Americas for processing, due to a need to be closer to end markets or to existing sunk processing capacity. In addition, downstream manufacturing (of catalysts, pharmaceuticals, and even jewellery) requires specialised knowledge and capital-intensive equipment. The potential for local beneficiation will obviously vary significantly based on the mineral in question, the location of sources and markets, and the specific economics of each stage of production. In most cases, however, the existence of a metal in the ground does not contribute significantly to competitiveness for downstream processing.

One important exception to the economic argument above relates to the relative importance of a country as a source of the mineral in question. Countries can obviously change the economics by either lowering the costs of processing (through lowering production and transport costs, or through subsidies) or raising the costs of the precious metals to alternative global processors (through export bans or export duties). In most cases, in the absence of a global cartel, individual producing countries can have limited impact on location decisions through an approach of export bans and duties. However, in the (relatively rare) cases where a country has a large share of global production of an important resource, they may have the power to force processing in-country. This is arguably the case for South Africa in PGMs (and certainly for Botswana in diamonds – *see Chapter 11*), although not likely for other precious metals in SACU.

Indeed, South Africa has had a successful catalytic converter industry as a result of the presence of PGMs as well as incentives available under the MIDP. Unfortunately, as noted earlier, the incentive system has changed under the APDP (which has replaced the MIDP) and the industry is now experiencing significant difficulties. It is therefore unlikely that automotive catalyst production will expand into other parts of SACU.

Outside PGMs (and South Africa) the region faces significant barriers to competitiveness for downstream processing of precious metals. These include limited access to skilled labor, capital, and most importantly lack of direct links to end markets. Botswana may have some potential to expand downstream activities in jewellery with the further development of the Diamond Trading Company (DTC) (*see Chapter 11*). However, jewellery hubs are typically located close to consumer markets (that are large enough to support a significant luxury goods market). Even in South Africa, the jewellery sector has struggled to reach scale.

Upstream activities in the precious metals sector, including equipment and services inputs, tends to be concentrated in South Africa. This is because companies with diverse operations in the region seek to centralize activities to serve the region. And in this strategic context, South Africa is seen as the best location due to the size of the market, global and regional connectivity, and access to skills and services.

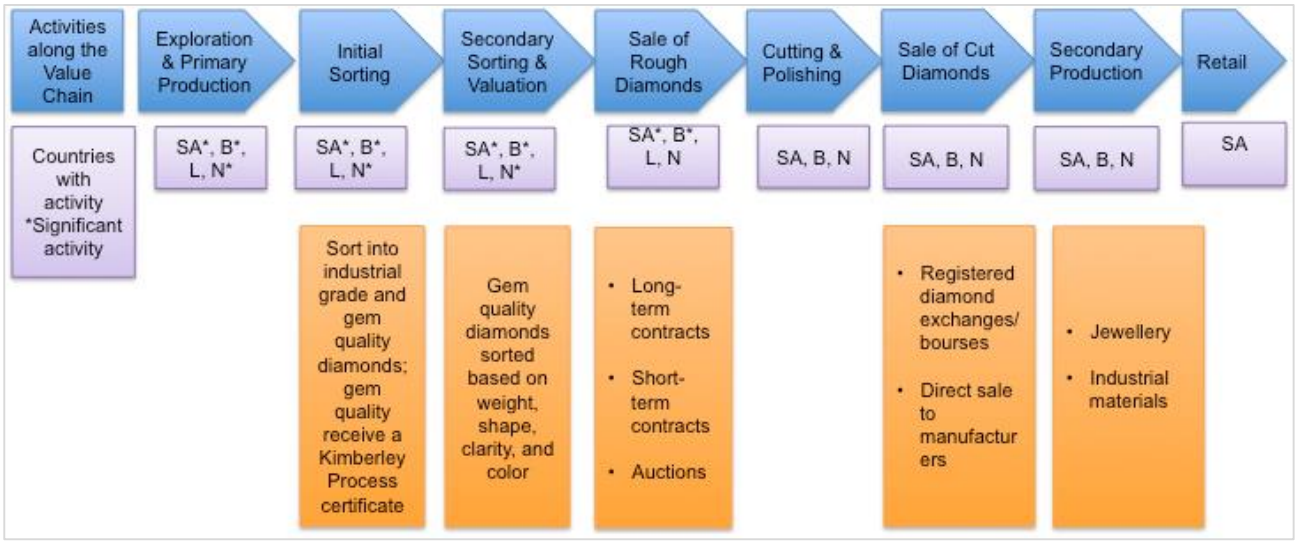
11. DIAMONDS

11.1 Structure of the Diamonds Value Chain in SACU

***Diamonds value chain structure*[75]**

The diamond value chain (Figure 31) is comprised of three clearly defined stages, mostly with separate players: upstream activities, middle-market activities, and downstream activities.

Figure 31: Overview of diamonds value chain in SACU



Source: Authors

Upstream activities include exploration, mining, sorting, valuing, and selling of rough diamonds. The mining and initial sorting of industrial versus gem-quality diamonds occur at the diamond mine, but sometimes the diamonds are then transferred to a large sorting facility for assessment and valuation based on the size, shape, clarity, and colour of the diamond. Most mining companies are involved in the value chain through the sale of the rough diamonds, although some mines contract companies that specialise in diamond sales for this step. The sale of rough diamonds is relatively complicated and each company has its own particular strategy that involves long-term contracts, short-term contracts, auctions, or a mix. De Beers, for example, under the "DTC" or Diamond Trading Company, sends all of its diamonds to a centralised location that focuses on sorting, valuing, and selling rough diamonds, which was recently relocated from Gaborone, Botswana from London. De Beers awards long-term purchasing contracts to "suppliers of choice," known as "sightholders" after they have been assessed based on a variety of criteria. De Beers sells roughly 90% of its diamonds through this method. Ten times per year De Beers packs boxes of diamonds and sightholders are given the chance to inspect the diamonds and purchase or reject the entire box. As part of the DTC deal with the Government of Botswana, all of De Beers' contract diamonds are now shown in Gaborone. De Beers sells its other diamonds using its wholly owned subsidiary, Diamdel, to perform online auctions. As

[75] *Sources Include: Bain & Co., The global diamond report, 2013, p. 17, 24, 27, 31, 32. http://www.bain.com/Images/BAIN_REPORT_The_global_diamond_report_2013.pdf ; Maritz, Jaco. How Botswana is positioning itself as a major diamond hub, 7 November 2013, http://www.howwemadeitinafrica.com/how-botswana-is-positioning-itself-as-a-major-diamond-hub/32209/ ; Odendaal, Natasha."De Beers to offer forward contract sales." Mining Weekly. 3 December 2013. http://www.miningweekly.com/article/de-beers-to-offer-forward-contract-sales-2013-12-03*

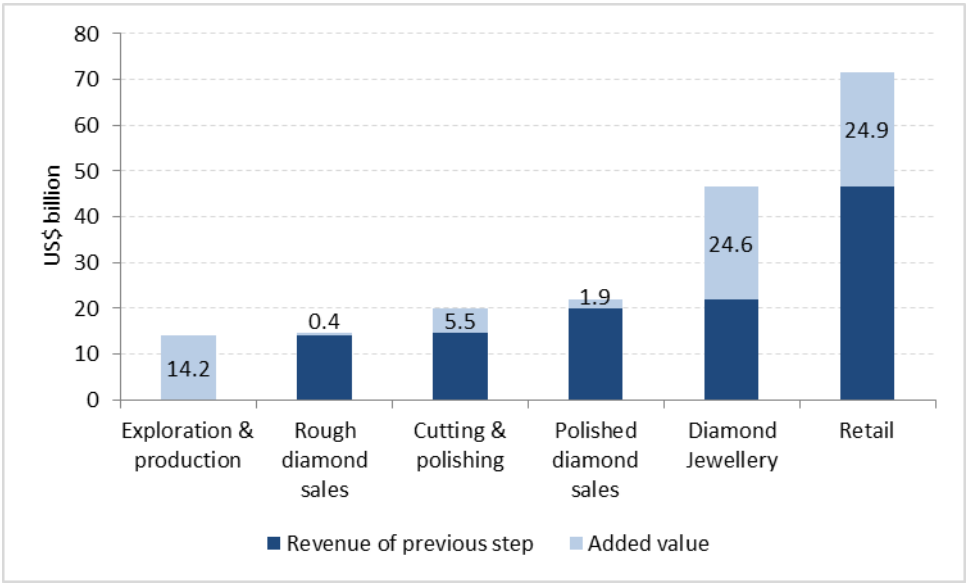
part of the DTC deal, the government of Botswana also established its own company – Okavango Diamonds – to market a portion of Debswana's diamonds.

The transition to middle-market activities happens as the rough diamonds are sold to be cut and polished in locations around the world including the US (New York), Israel (Tel Aviv), Europe (Antwerp), China, India, and most recently in Botswana. A small share diamonds are also sold to manufacturing companies for industrial applications, such as drill bits. Following cutting and polishing, the diamonds are sold to middlemen, investors, and/or jewellery production companies; it is not uncommon for there to be several buyers between the point of sale of a polished diamond and a jewellery manufacturer.

The sale of cut and polished diamonds has more channels than the sale of rough diamonds and can include direct to buyer sales, online sales, auctions, and long or short contracts. Sales, as well as many of the middle-market activities, generally occur at the traditional diamond hubs, including: Antwerp, Tel Aviv, New York, and newcomers Dubai, Hong Kong, and Mumbai. Then the diamond jewellery is manufactured and sold to retail outlets. The final stages are retail and marketing to end-consumers. The large jewellery producers like Tiffany & Co., Chow Tai Fook Jewellery, and Signet become involved at the purchase of rough diamonds and are vertically integrated all the way through retail sales; however, many of the smaller jewellery producers do not become involved in the value chain until after cutting and polishing takes place. There is often a close interaction between jewellers and customers in order to provide customised jewellery manufacturing services.

De Beers is unusual in the sector in that it is involved across the value chain, particularly at the beginning and end of the value chain (mining, rough sales, and final marketing). De Beers is also involved in jewellery manufacturing and even consumer retail through De Beers Diamond Jewellers, a joint venture with LVMH, and its Forevermark brand.

Figure 32: Diamond value addition by main stage (global sales)



Source: Bain & Co., The global diamond report, 2013, p. 5.
http://www.bain.com/Images/BAIN_REPORT_The_global_diamond_report_2013.pdf

Most value addition occurs at the diamond jewellery production and diamond jewellery retail stages (Figure 32). This means the move up from mining activities offers only moderate additional value-added potential until much further down the chain. That said, the value-added in cutting and polishing is still significant in nominal terms (a global market of US$5.5 billion) and adds around 25-30% value to rough

diamonds. Moreover, rough diamond production is the most profitable with margins around 16-20%, although large chain diamond jewellery retailers like Tiffany & Co. or Cartier can also observe substantial margins between 11-14%[76]. Most companies involved in the diamond value chain are present in two or more stages of the value chain, with relatively high margins across all stages of the value chain likely to be a driver of this.

Overview of activities in SACU[77]

Table 18: Overview of SACU diamonds production

Country	Available information on scale of activity
	Carats mined p.a.:
Botswana	22.9 million (2011)
Lesotho	0.22 million (2011)
Namibia	1.26 million (2011)
South Africa	7.04 million (2011)
Swaziland	0

Botswana is the second largest producer of diamonds in the world in volume, and the largest producer in the world in value. In 2011, Botswana produced 22.9 million carats, the majority of which were produced by Debswana. Debswana is equally owned by De Beers and the Government of Botswana. Botswana is involved in nearly every aspect of the value chain to some extent, but certainly not to the extent that it could, especially in terms of middle-market activities. Other companies active in Botswana include Gem Diamonds, Lucara, and Firestone in Botswana. Botswana has promoted more local cutting and polishing activities, and in response, the local cutting and polishing industry has increased from 300 to 3,000 people. The high-end jewellery retailer, Tiffany & Co. (through its Laurelton Diamonds unit) even opened up a 3,000 square meter diamond polishing facility in Gaborone. De Beers' announcement that the DTC would relocate all of its rough diamond sales to Gaborone has also created some excitement around the possibility of further development of middle-market activities. The government-owned Okavango Diamond Company, which sells its portion of Debswana's rough diamonds, may also result in increased local middle-market activities. Companies who cannot qualify to be a De Beers sightholder, especially smaller-companies, still have the opportunity to purchase diamonds through Okavango. This should open up possibilities for local cutting and polishing companies and jewellery producers. Despite these opportunities, there are still high barriers to overcome if Botswana wishes to increase its middle-market activities. In

[76] Bain & Co., The global diamond report, 2013, p. 4.
http://www.bain.com/Images/BAIN_REPORT_The_global_diamond_report_2013.pdf

[77] *Sources Include: Kimberley Process Statistics, 2011 http://www.kimberleyprocess.com/en/system/files/documents/2011%20Global%20Summary%20Statistics.pdf ; USGS, Botswana, 2011. http://minerals.usgs.gov/minerals/pubs/country/africa.html ; Bain & Co., The global diamond report, 2013, p. 17. http://www.bain.com/Images/BAIN_REPORT_The_global_diamond_report_2013.pdf ; USGS, South Africa, 2011. http://minerals.usgs.gov/minerals/pubs/country/africa.html ; http://www.rockwelldiamonds.com/rcw/BeneficiationJointVenture.asp ; USGS, Namibia, 2011. http://minerals.usgs.gov/minerals/pubs/country/africa.html ; "Leviev's Namibia diamond plant fires entire workforce." 2 July 2012. http://www.starafrica.com/en/news/detail-news/view/levievs-namibia-diamond-plant-fires-ent-240759.html ; "Diamond cutting flagship collapses." 15 August 2012. http://www.informante.web.na/?option=com_content&view=article&id=10622%3Adiamond-cutting-flagship-collapses&catid=20%3Afront-page-items&Itemid=1&fontstyle=f-smaller ; USGS, Lesotho and Swaziland, 2011. http://minerals.usgs.gov/minerals/pubs/country/africa.html ; Magagula, Mduduzi. "Twist in Dvokolwako mine deal." 20 October 2013. http://www.times.co.sz/news/92454-twist-in-dvokolwako-mine-deal.html ; http://english.peopledaily.com.cn/90777/7660998.html ;http://online.wsj.com/news/articles/SB125650986946206903*

terms of cutting and polishing and jewellery production, Botswana's labour costs are much higher than in India and China, and its artisans much less skilled than those in the US, Europe, and Israel; these two issues combined render Botswana less competitive than the current players.

South Africa's diamond production was around 7 million carats in 2011, and is the second largest producer in the region. There is activity all across the value chain (although less so in manufacturing), and Johannesburg serves as a point of sale for many rough diamonds. The De Beers Group, Petra Diamonds Ltd., Trans Hex Group, and Rockwell Diamonds are some of the main players. Unlike in other Southern African countries, the South African government is not generally a shareholder, except in the case of Alexkor. Many of the mining companies have shareholding, joint ventures, or other beneficiation agreements with B-BBEE companies. Rockwell Diamonds is an interesting example because it sells 85% of its rough diamonds to South African-based cutters and polishers as part of its beneficiation strategy. Of this, about 10% goes directly to the State Diamond Trader, and then some to Steinmetz Diamond (Beny Steinmetz Group), which has a B-BBEE cutting and polishing facility. While Rockwell is not involved in many of the middle-market activities of the value chain, in 2008 it entered into a joint venture with Steinmetz Diamonds. Steinmetz sells Rockwell's diamonds that are over 2.8 carats and they both reap the benefits from the sale of large, cut and polished stones. The joint venture has allowed Rockwell Diamonds to benefit from the significant value addition that occurs once a large stone is cut and polished, without having the overhead and risk of operating its own cutting and polishing centre.

Namibia produced 1.25 million carats of diamonds in 2011, many of which come from the coastal mines, which are engaged in marine diamond mining. Namdeb, Diamond Fields Ltd., and Sakawe Mining Corp. are the major players in diamond mining. Namdeb is 50-50 owned by De Beers and the Government of Namibia; and through De Beers' various subsidiaries, Namdeb is involved in all aspects of the diamond value chain. Namdeb even cuts and polishes diamonds in country through the De Beers-owned subsidiary, NamGem. Sakawe Mining Corp. (subsidiary of Leviev Group of Companies) is also vertically integrated up through polished diamond sales. Samicor Diamond Mining, owned by Sakawe Mining Corp., is involved in coastal diamond mining activities. Lev Leviev Diamonds (LLD) Diamonds Namibia, also part of the Sakawe Mining Corporation, is one of the largest diamond cutting and polishing factories in Namibia. However, LLD Diamonds halted operations in 2012 after De Beers failed to renew it as a sightholder, and then its largest shareholder, Lev Leviev withdrew his investment from the company.

Lesotho is a small diamond producer of particularly high value stones. Most of its production in 2011 came from the Letseng diamond mine. Gem Diamonds Ltd., Firestone Diamonds, Lucara Diamond Corporation, and Namakwa Diamonds Ltd. are the only operational mining companies in country. Combined, they hope to reach production levels of over 1.5 million carats in 2014. The Government of Lesotho has between a 25-30% stake in each of the mines. Gem Diamonds Ltd. is the only company currently active in some capacity all along the value chain. Gem Diamonds sells its rough diamonds via its subsidiary, Gem Diamonds Marketing Services BVBA, as well as engages in a minimal amount of cutting and polishing and cut diamond sales through some of its high-end partnerships. As at 2009, Lesotho had an export duty in place for rough diamonds and requires an export permit to be granted.

Swaziland does not currently have any operational diamond mines, although it is hoping to open the Dvokolwako Mine in 2014, once the Swazi government chooses an appropriate mining company to operate the mine; production is anticipated to be around 80,000 carats per year.

11.2 Opportunities and Constraints to Global and Regional Diamonds Value Chains[78]

While all countries in the region except for Swaziland are involved in primary production activities and the region is the world's most prolific and valuable location for diamond mining, there remains relatively little middle and downstream activity.

Some of the barriers to increasing activity across all the value chain include capital and investment for cutting, polishing, and jewellery production facilities, highly skilled workforce trained in cutting, polishing and jewellery production, and a local market or access to an international market for jewellery retailing.

The other major barrier is that the diamond value chain is very well established and the majority of the main actors further down the value chain are located in the "diamond hubs." The DTC (Botswana) deal has been one significant initiative towards creating a global diamond hub in Southern Africa and there has now also been the development of a cutting and polishing sub-sector in Botswana. . New York and Antwerp are hubs for cutting and polishing because of their highly skilled artisans, who are difficult to compete with on level of skill; however, China and India have emerged as competitors to the artisans in New York and Antwerp due to the low cost of labour and comparatively high-skilled workforce. For Southern Africa to compete in middle-market activities, such as cutting and polishing, it would need to compete on skill, cost, efficient logistics and productivity of the workforce. A significant effort would be required by all stakeholders to achieve this.

Botswana has some potential for increasing its middle-market activities following the DTC relocation. The cutting and polishing industry around Gaborone has grown and, with training from experts in the diamond hubs, they may be able to eventually compete on skill level. This will be the key to raising productivity to the point where Botswana can come close to competing with India for standard diamonds[79]. In 2009, it was estimated that it would cost $100 to polish a parcel of diamonds in Botswana versus $30 in India.

Since Namibia and South Africa are already involved in cutting and polishing to some extent, there may also be some limited opportunity to increase their activity as well. Lesotho could also benefit from developing cutting and polishing facilities in country due to its high value diamonds. Since Lesotho has such highly prized diamonds, the government could try to implement policies to encourage middle-market and downstream activity. However, Lesotho would need to ensure that its artisans were extremely well trained and highly skilled, because if the most valuable large diamonds were cut incorrectly, the country could lose its competitive position. Lesotho could employ a similar strategy to Botswana and get internationally recognised diamond artisans to teach local artisans, or the Government of Lesotho could provide incentives for some of the world's major cutting and polishing companies and jewellery production companies to open offices in Lesotho.

South Africa may also have some potential for increasing its involvement in jewellery manufacturing and retail activities. South Africa has a robust tourist market as well as a large enough population in the middle and upper income brackets to support a small scale domestic diamond jewellery retail market. Southern Africa is already known as having some of the world's best diamonds, but there is potential for it to

---

[78] Sources Include: 2012 South Africa Annual Tourism Report, p.25, 60. http://www.southafrica.net/uploads/files/2012_Annual_Report_v9_03092013.pdf ; South African Tourism, Marketing South Africa in the USA. 2010.; South African Tourism Marketing South Africa in France 2010.

[79] There may be niche opportunities already to compete for some products (e.g. large, high value diamonds)

leverage this even more in the tourism market. Shopping is already one of the main purposes of visit for foreigners travelling to South Africa; in 2012, 15.6% of foreign tourists cited personal shopping and 10.3% cited business shopping as their main purpose of visit[80]. Many of South Africa's largest tourism source markets come from among the world's wealthiest markets (US and many European markets). Numerous manufacturer jewellers already focus on this market – including Browns, Katannuta, Shimansky, and Mark Solomon. Whilst the other countries in Southern Africa likely do not have a consumer market large enough to warrant significant in country investment in retail sales, they could partner with South Africa. For example, BLNS producers could sell jewellery to South Africa to sell on its retail market.

[80] Even the tourists with other reasons for visiting did some shopping; 83.4% of holiday tourists, 56.9% of business travelers, 54.1% of business tourists, 77.4% of medical tourists, 83.4% of VFR, and 82.4% of religious travelers did some shopping whilst in South Africa.

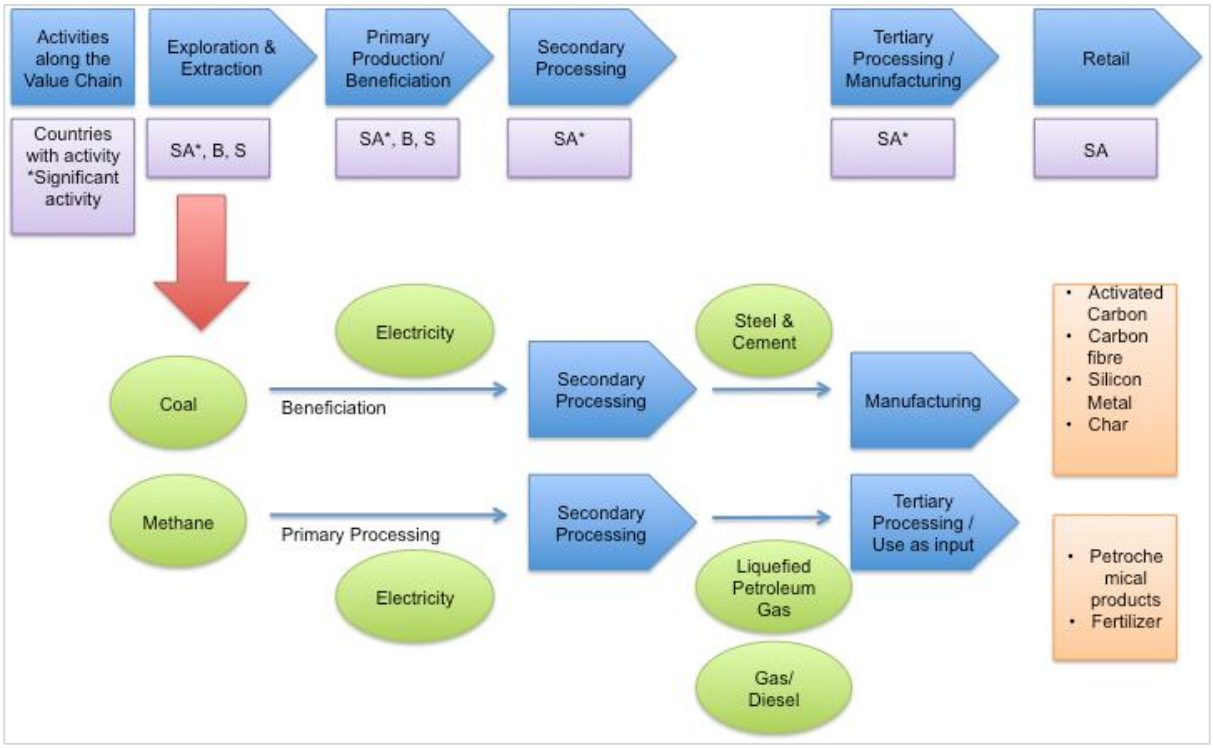
12. COAL

12.1 Structure of the Coal Value Chain in SACU

Coal value chain structure[81]

The coal value chain (Figure 33) begins with the mining inputs (e.g., mining equipment, labour, and land), and then progresses to the exploration stage.

Figure 33: Overview of coal value chain in SACU



Source: Authors

The main activities of the exploration stage include: prospecting, geological surveying, and preparation for mining. Some of the larger mining companies have vertically integrated this step, although there are also many companies that strictly focus on the exploration stage. Extraction follows, which is the process of taking the coal from the ground either through surface mining or underground mining. The extraction process produces one of four types of coal (lignite, sub-bituminous, bituminous, or anthracite) depending on the moisture content and carbon content, and then CH4 (methane). Sub-bituminous and bituminous coal are the most prevalent types, the former is used for thermal coal and the latter can be used for both thermal and metallurgical coal. Following extraction, the coal generally goes through a beneficiation process, sometimes known simply as "washing" after being transported to the washing facility. The larger mining companies have vertically integrated this process and have washing facilities nearby the mines, or a

[81] *Sources Include: Bain & Co., The global diamond report, 2013, p. 17, 24, 27, 31, 32. http://www.bain.com/Images/BAIN_REPORT_The_global_diamond_report_2013.pdf ; Maritz, Jaco. How Botswana is positioning itself as a major diamond hub, 7 November 2013, http://www.howwemadeitinafrica.com/how-botswana-is-positioning-itself-as-a-major-diamond-hub/32209/ ; Odendaal, Natasha."De Beers to offer forward contract sales." Mining Weekly. 3 December 2013. http://www.miningweekly.com/article/de-beers-to-offer-forward-contract-sales-2013-12-03*

centralised washing facility that serves all of their mines. Then, the washed coal is transported for use as electricity or industrial purposes; it is at this stage that any coal for international consumption is exported. If the coal is to be used as electricity, it will be shipped to a power plant for use in its current state, and if it is to be used for industrial purposes, it will undergo secondary processing. The coal and its by-products can be used as inputs into steel, cement, activated carbon, carbon fibre, silicon metal, and char. The grade of the coal affects possible uses – low grade coal can be used for power production, whereas high grade coal is used for metallurgical purposes since low-grade coal emits significant amounts of ash that must be removed, increasing production costs.

Methane is also captured during coal extraction. The methane gas is transported via a gas pipeline and undergoes some type of processing depending on its anticipated end-use. Methane gas that has been processed through an integrated gas combined cycle is usually transported to power plants for use as electricity. The other option is to undergo secondary processing, such as liquefaction, which produces liquefied petroleum gas (propane, butane) or gas/diesel that can be used to power cars, boats, machines, etc. Some of this gas might undergo tertiary processing to become fertilizer or petrochemical products.

Overview of activities in SACU[82]

Table 19: Overview of SACU coal production

Country	Available information on scale of activity
	Tons (metric) of coal produced:
Botswana	3.4 million (2011)
Lesotho	0
Namibia	0
South Africa	250 million (2011)
Swaziland	0.12 million (2011)

South Africa is the largest producer of coal and coal products in the region. In 2011, South Africa produced 2,554,000 metric tons of anthracite coal and 250,203,000 metric tons of bituminous coal. South Africa's coal mine production was valued at $6,047.1 million in 2010, growing to $8,254.6 million in 2015. There are many companies operating in all stages of the value chain, but the extraction stage is highly concentrated with five companies accounting for 80% of the country's total coal production: Anglo American's Thermal Coal; Exxaro; Sasol[83]; BHP Billiton Energy Coal South Africa; and Xstrata. Even though South Africa is one of the world's largest producers of coal, it is at risk of a shortage. Eskom, South Africa's power utility company also supplies power to neighbouring countries like Botswana. As more coal is exported to lucrative

[82] Sources Include: USGS, South Africa, 2011. http://minerals.usgs.gov/minerals/pubs/country/africa.html ; Marketline, South Africa Coal mine production, 2011, p.2; "Coal remains a vital link for South African economy", Coalage, 26 April 2013. http://www.coalage.com/index.php/features/2696-coal-remains-a-vital-link-for-south-african-economy.html ; "Botswana eyes coal exports", Africatime, 2013. http://www.mmegi.bw/index.php?sid=4aid=524dir=2012/August/Thursday16&aid=750&dir=2013/June/Friday14 ; USGS, Botswana, 2011. http://minerals.usgs.gov/minerals/pubs/country/africa.html ; "Morupule colliery expansion project." 19 June 2012. http://www.esi-africa.com/morupule-colliery-expansion-project/ ; Grynberg, Roman. "When Eskom falls off its 'coal cliff', will it fall on Botswana?" 31 July 2013. http://www.mmegi.bw/index.php?sid=6&aid=34&dir=2013/July/Wednesday31 ; Botswana MTI, Kaiser, 2013, p.54,58; DeKlerk, Eveline, "Namibia: Namport gears up to ship Botswana coal," 11 July 2013. http://allafrica.com/stories/201307111075.html ; "Namibian power company gets go ahead for coal plant," 14 September 2012. http://www.africanreview.com/energy-a-power/power-generation/namibian-power-company-gets-nod-for-coal-plant ; USGS, Lesotho and Swaziland, 2011. http://minerals.usgs.gov/minerals/pubs/country/africa.html

[83] Sasol is the only company out of the main producers whose primary focus is not mining; it uses coal to produce "syngas", a coal-based, synthetic fuel.

international markets or beneficiated for oil production, the cost for the low-grade coal used in power stations rises. In the next few years, Eskom will need an additional 60 million tons of coal per annum, growing to 120 million by 2020.

Due in part to the South African coal crisis and its own need to diversify away from diamonds, Botswana has recently shown significant interest in developing its coal industry. Botswana is estimated to have more than 200 billion tons of coal reserves (around two-thirds or Africa's total), although much of it is not yet proven commercially viable. Botswana produced 900,000 metric tons of bituminous coal in 2011, but that grew to nearly 3 million tons in 2013. All current production comes from Morupule Colliery and output goes almost exclusively for domestic power (although in 2011 and 2012 Morupule exported some coal to Turkey, via Transnet Freight and the South African rail networks. Plans to increase exports of coal are under development, and there is even speculation that South African power utility, Eskom, would like to import Botswana coal either as coal or through wire as surplus power.

Infrastructure remains a major barrier restricting Botswana from exploiting its coal resources. Plans are being developed to construct the Trans Kalahari Railway (TKR) to export coal through Walvis Bay in Namibia as well as potentially build up the rail lines between Botswana and South Africa (Richard's Bay), and between Botswana and Mozambique (Techobanine) to ameliorate these constraints. The Government of Botswana is in talks to potentially develop all three rail lines, but would clearly require massive private investment. TKR alone, along with the necessary port facilities, is expected to cost between $10-15 billion.

With or without an export coal opportunity, there remains potential for Botswana to utilise its coal resource to become a power supplier to the region, potentially in partnership with countries requiring the power. If the supply of middlings produced can be consumed by local power plants, then the overall power supply / coal-export strategy could be viable (See table below on coal sector opportunity in Botswana. Indeed, plans are being developed for a number of power stations to serve regional markets, such as the Mmamabula Energy Project and the Sese coal mine. The Mmamabula Energy Project, which hopes to build a 300 MW power station will eventually be supplied by the Mmamabula Coalfield. The project stalled when it was being managed by CIC and Eskom, but now Jindal has taken over and is in the process of developing coal for export and power production. Jindal recently put in its tender for a power station to the Government of Botswana. African Energy Resources has already been in negotiations with the Namibian government to supply 200MW once it opens the Sese coal mine.

Namibia has coal reserves, but it does not currently have any operational coal mines. However, due to its proximity to Botswana, it is quickly becoming involved in downstream activities. For instance, there are plans to build the TKR, and Namport is starting to prepare to handle the coal that would be transiting through the Port of Walvis Bay. While Namibia is planning to capitalise on Botswana's growing coal export market, it is also planning on being a consumer. Nampower has recently made plans to develop a 300MW coal-fired power station, which will be supplied by Botswana coal.

Swaziland has one operational coalmine, Maloma Mine, which is partially owned by Glencore Xstrata and the Swazi government. In 2011, the Maloma Colliery produced 121,050 metric tons of three different forms of anthracite coal for use by the ferroalloys industry in South Africa[84]. While coal production is not expected

[84] Used as a pellet reductant in Glencore Xstrata's Premus technology at Lion Ferrochrome in Mpumalanga and Lydenburg – see http://www.mining-atlas.com/operation/Maloma_Metallurgical_Coal_Mine.php; http://www.miningweekly.com/article/ferrochrome-smelter-technology-lowering-costs-energy-consumption-2011-12-16)

to increase significantly in the future, Swaziland is expanding its involvement in downstream activities, such as transportation. Swaziland Rail Corp. and Transet SOC Ltd. have joined together on a $2 billion railway project to connect Lothair, South Africa with Sidvokodvo, Swaziland. While this line would not carry coal, it would help reduce the strain on the Mpumalanga to Richards Bay Coal Terminal and increase its coal haulage capacity.

Lesotho has coal reserves, but currently does not have any operational mines and is not significantly involved in any aspects of the coal value chain , other than as a power consumer (however, Lesotho is less dependent on coal power than many other countries in the region thanks to Katse dam hydropower).

12.2 Opportunities and Constraints to Global and Regional Coal Value Chains[85]

Availability of coal in country is the initial barrier for involvement within the coal value chain, more so than in the precious metals or diamond value chain due to the low value-volume ratio impact on relative transport cost and logistics for coal. However, if a country does not have a resource it does not mean that the country cannot be involved further down the value chain. South Africa has the most coal resources. Botswana, Lesotho, Namibia, and Swaziland all have coal resources; however, Botswana and Swaziland are currently the only two countries outside South Africa with operational mines**.** Although there is availability of the coal in Swaziland (proven production), Namibia and Lesotho (coal reserves), Botswana appears best placed to develop a significant coal industry. Botswana has been actively trying to increase its production, and it has the potential to be a major regional power supplier and/or a major supplier to Eskom and other regional power companies.

The main barrier to development of the coal value chain in the region (in Botswana and elsewhere) is infrastructure – to move coal to global and regional markets and/or to generate and distribute electricity.

[85] *Sources Include: Swanepoel, Esmarie. "Continental Coal relinquishes Botswana license." Mining Weekly. 18 November 2013.* http://www.miningweekly.com/article/continental-relinquishes-botswana-license-2013-11-18

13. TOURISM

This section describes each step in the value chain for selected market segments within Tourism. For the purposes of this study, tourism has been divided into three market segments that have different value chain structures and some variations in dominant players including: 1. International Organised Holiday Travel, 2. Meetings, Incentives, Conferences, and Exhibitions Travel, and 3. Foreign Independent Travel. An overview of tourism demand (which is not consistently and reliably available in the region at a market segment level), as well as an introduction to tourism distribution systems and tourism value chains, precedes the discussion of the individual value chains.

13.1 Introduction to Tourism Value Chains in SACU[21]

Overview of tourism demand in SACU

Table 20: Comparison of Regional and International Visitors across SACU

	Regional - Other Africa	International - Outside Africa	Total
South Africa (2012)	6,656,457	2,505,763	9,162,220
Botswana (2008)	1,932,644	168,274	2,100,918
Namibia (2011)	784,578	242,651	1,027,229
Swaziland (2012)	1,165,225	113,305	1,278,530
Lesotho (2012)	403,763	18,834	422,597

Sources: Botswana Tourism Statistics 2006-2010, Lesotho Tourism Stats Annual Report (2012), Statistics South Africa Tourism, 2012, Swaziland Tourism Research Annual Report (2012), Republic of Namibia Ministry of Environment and Tourism Statistical Report (2011)

South Africa, with its variety of wildlife, beaches, cultural sites, natural beauty, and business activities, dominates the Southern African tourism scene. The tourism sector is a significant contributor to the domestic economy; the total Foreign Direct Spend (excluding capital expenditures) in 2012 was R76,4 billion. The country received around 9.188m foreign tourists in 2012. The most common lengths of stay were 5, 4, 3, 6, and 7 nights for air tourists, but for land tourists the most common length is 1 night. In line with global trends in long-haul travel, the average duration of foreign trips to South Africa is in decline.

[21] *Sources Include: 2012 South Africa Annual Tourism Report, p. 1,6,8,12, Appendix 2. http://www.southafrica.net/uploads/files/2012_Annual_Report_v9_03092013.pdf ; South Africa Tourism Arrivals Jan - Dec 2012 http://www.southafrica.net/uploads/files/Tourists_Table_A_DEC2012_1.pdf ; UNWTO Highlights 2013, http://dtxtq4w60xqpw.cloudfront.net/sites/all/files/pdf/unwto_highlights13_en_lr_0.pdf ; Botswana Tourism Stats, 2010, p.15,17. http://www.mewt.gov.bw/uploads/files/Tourism/Tourism%20Statistics%202006-2010%20V2%200.pdf ; Namibia Tourist Exit Survey, 2012-2013, p.9,54. http://www.namibiatourism.com.na/uploadedFiles/NamibiaTourism/Global/Downloads_Modules/Research_Center/Report%20-%20Namibia%20Tourist%20Exit%20Survey%202012-2013.pdf ; Swaziland Tourism Research Annual Report, 2012, p. 3. http://www.thekingdomofswaziland.com/downloads/STA/Tourism_Research_Annual_Report_2012.pdf ; Lesotho Tourism Stats, 2012, p.8. http://www.ltdc.org.ls/TourismDocs/RandD/Other/2012%20Tourism%20Stats%20Annual%20Report.pdf ; http://news.xinhuanet.com/english/africa/2013-11/21/c_132905115.htm ; http://www.lamoncloa.gob.es/IDIOMAS/9/Gobierno/News/2013/20130122_tourism_data_2012.htm*

South Africa's major tourist source markets are SADC, Europe, the US, and Asia. Over 72% of tourists originate from Africa. Inbound tourism's top markets by arrivals listed Zimbabwe at the top, followed by Lesotho, Mozambique, Swaziland, Botswana, UK, USA, Germany, Namibia, and Zambia. Of international tourists the purpose of visit in 2012 included holiday (18.7%), shopping-personal (15.6%), shopping-business (10.3%), business travel (12.3%), business tourism (6.1%), medical (3.0%), visiting friends and relatives (27.7%), religion (0.7%), and other (5.7%). Of tourists from Southern Africa (Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Zambia, and Zimbabwe) 57.8% were there for leisure purposes, followed by business (28.8%), medical (5.9%), and religion (0.6%). Outside of Africa, the UK was the larger generator of visitors in 2012 with 438,023 arrivals, followed by the US (326,643), Germany (266,333), China (132,334), and France (122,244). South African data on mode of travel shows significant road movements of both South African residents and foreign visitors on routes from BLNS countries (Table 21).

Table 21: Number foreign arrivals to South Africa by location and mode

Number of foreign arrivals and departures by mode of travel and place of arrival or departure, 2012			
Mode of travel and place of arrival or departure	**Arrivals**	**Departures**	**Total**
Total	**13,795,530**	**11,493,833**	**25,289,363**
Air	**3,480,855**	**2,835,909**	**6,316,764**
Cape Town International	634,556	431,360	1,065,916
King Shaka International	41,323	40,010	81,333
OR Tambo	2,887,071	2,244,742	5,131,813
Other International	17,905	19,797	37,702
Road	**10,275,728**	**8,626,050**	**18,901,778**
Botswana	990,561	979,299	1,969,860
Lesotho	3,255,657	2,633,779	5,889,436
Mozambique	1,555,453	1,146,639	2,702,092
Namibia	148,682	153,121	301,803
Swaziland	1,508,307	1,396,183	2,904,490
Zimbabwe	2,817,068	2,317,029	5,134,097
Sea	**38,374**	**31,539**	**69,913**
Unspecified	**573**	**335**	**908**
Source: Table 3, Statistics South Africa			

Source: Statistics South Africa

Botswana had an estimated 2.145m foreign visitors arrivals in 2010[22]. The major source of tourists was Zimbabwe, which accounted for 45.1% of all tourist arrivals; South Africa followed at 28.3%. Outside of Africa, the USA leads with 1.5% followed by the UK, Germany, and Australia. The majority of tourists (47%) can be categorised as VFR, but many were leisure travellers (19%), transit travellers (19%), and business travellers (7%). In future years, one might expect travel for business purposes (e.g., shopping, deal-making, MICE) to increase due to the DTC trading events. The average length of stay for foreign tourists was 5 days, with an average spend per foreign tourist of around BWP2,377 or USD349.

Namibia had a total of 1,027,000 foreign tourist arrivals in 2011. Namibia's key source markets include South Africa (28.3%) and Angola (35.8%); however, outside of Africa, Germany is dominant (7.7%), followed by the UK (1.9%), USA (1.6%), France (1.4%), and Italy (1.1%). Most travellers visit on holiday (38.5%),

[22] Visitor means anyone who arrives in country, "tourist" implies an overnight stay. Sometimes these terms are used interchangeably, even though the UNWTO makes a clear distinction. Therefore, country data is not always directly comparable.

especially those from South Africa, US, and Europe; business travel is the next largest segment (27.3%), followed by VFR (24.9%).

Swaziland attracted around 1,278,530 visitors in 2012. For 2012, South African travellers accounted for 68% and Mozambican travellers accounted for 22% of all inbound trips. Visitors from the UK (15,282), Germany (14,911), USA (14,672), France (9,776), Netherlands (9,011), and Portugal (7,299) topped the list of overseas visitor arrivals in 2012. The majority of travellers came for holiday purposes, especially visitors from outside of Africa, with an average length of stay of around 2 nights. Package travel was much lower than non-package travel (91.3%), however, package travel increased 8.7% from the prior year.

In **Lesotho**, 93.3% of the total 422,597 visitors in 2012 were from South Africa. Outside of Africa, Germany leads with 0.89% of all visitors, closely followed by the Netherlands (0.85%), USA (0.53%), and UK (0.43%). The main purpose for visit (56.44%) is listed as "Other", which could include visiting friends and relatives (not directly reported); holiday making makes up 30.84% of arrivals and business travel around 11.7%.

As an indication of the relative size of the market, Morocco received around 9 m tourists in 2011, and Kenya, a major East African destination, received 1.75 million tourists, and Spain - the fourth largest tourism destinations in the world - received 57.7 million arrivals in 2012.

Two common trends in originating markets to South Africa and BLNS are notable. Most foreign tourist arrivals are intra-regional tourist travellers from neighbouring countries. Secondly, the USA, Germany and the United Kingdom are the primary overseas foreign tourist markets for all the countries. These are mature markets with a high level of independent travel (as opposed to package travel); however, they may still make use of organised travel in less familiar markets like SACU.

Visiting several countries on a holiday trip to Southern Africa has become increasingly popular. Most European and American tour operators offer trips which combine two or more countries. Multi-country packages are available all across Southern Africa, but are concentrated in the corridor ranging from Namibia eastward to Mozambique. Victoria Falls is the centre of multi-country tours involving Namibia, Botswana, Zambia and Zimbabwe. South Africa is also an important hub for multi-country destination is South Africa with its neighbours Namibia, Botswana, Mozambique, Lesotho and Swaziland.

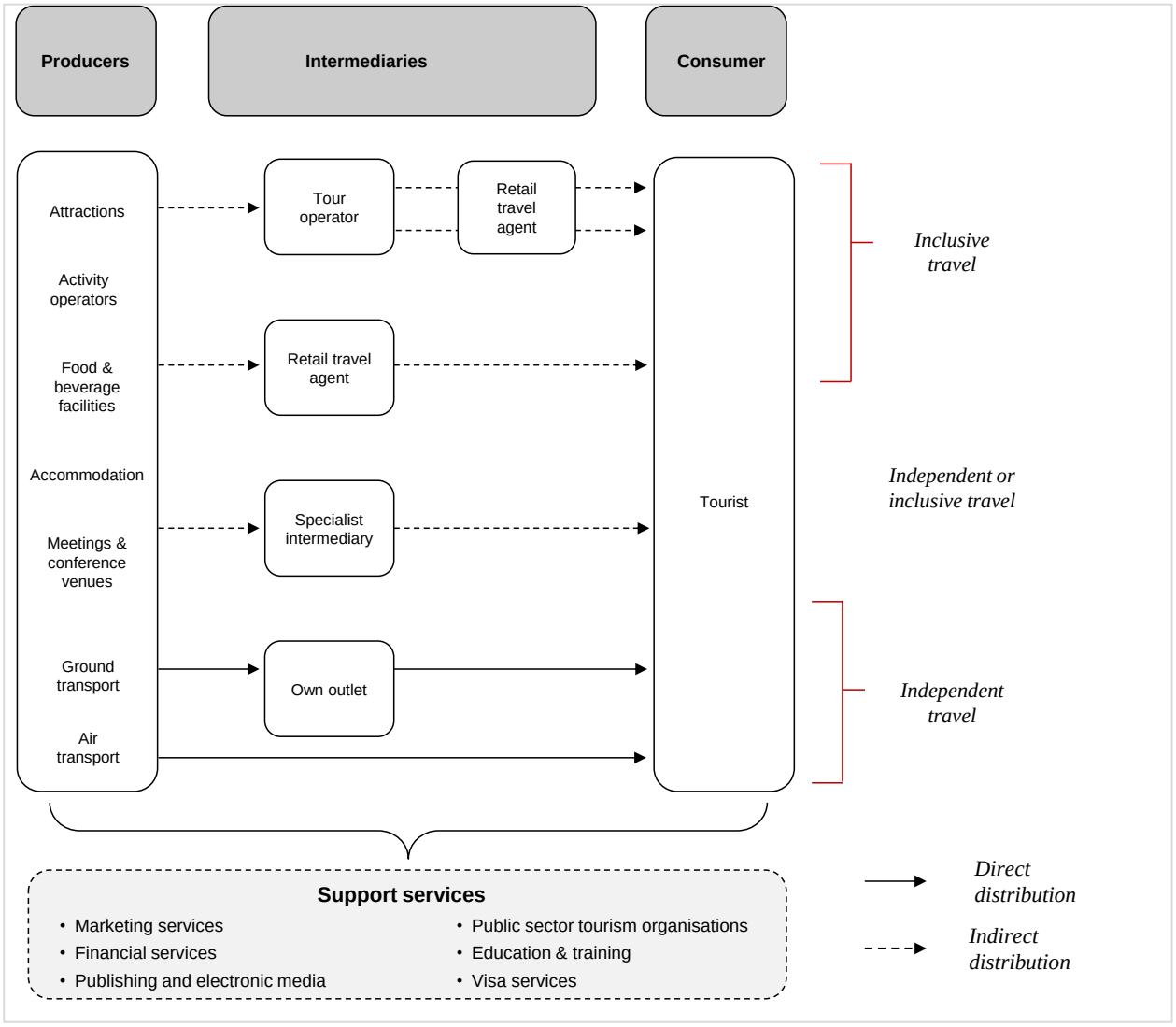
Although tour operators indicate that the demand for multi-country tours continues rising (RETOSA, 2009), multi-country tourists are not specifically recorded by destinations, and hence a reliable estimate of multi-country tourist flows to each country in the BLNS grouping is not possible. Logically, some countries will receive more multi-country tourists than others. The size of the country, the number, diversity and quality of attractions, availability and quality of tourism infrastructure, and maturity of the tourism sector determine overall foreign tourist number and length of stay. These factors also determine whether foreign, overseas tourists are more likely visit the country as a single destination or typically as part of a multi-country trip.

A synopsis of tourism distribution systems and value chains

In the tourism sector, the structure of the distribution system is a key driver of where value accrues, and the extent to which income flows to local economies. This structure differs from many other sectors as in tourism the consumer is brought to the product rather than vice versa.

The tourism distribution system links the suppliers of tourism products to their clients or tourists. Consumers, producers and intermediaries are all players in the tourism distribution system. Figure 34 provides a visual representation of the tourism distribution system.

Figure 34: The tourism distribution system



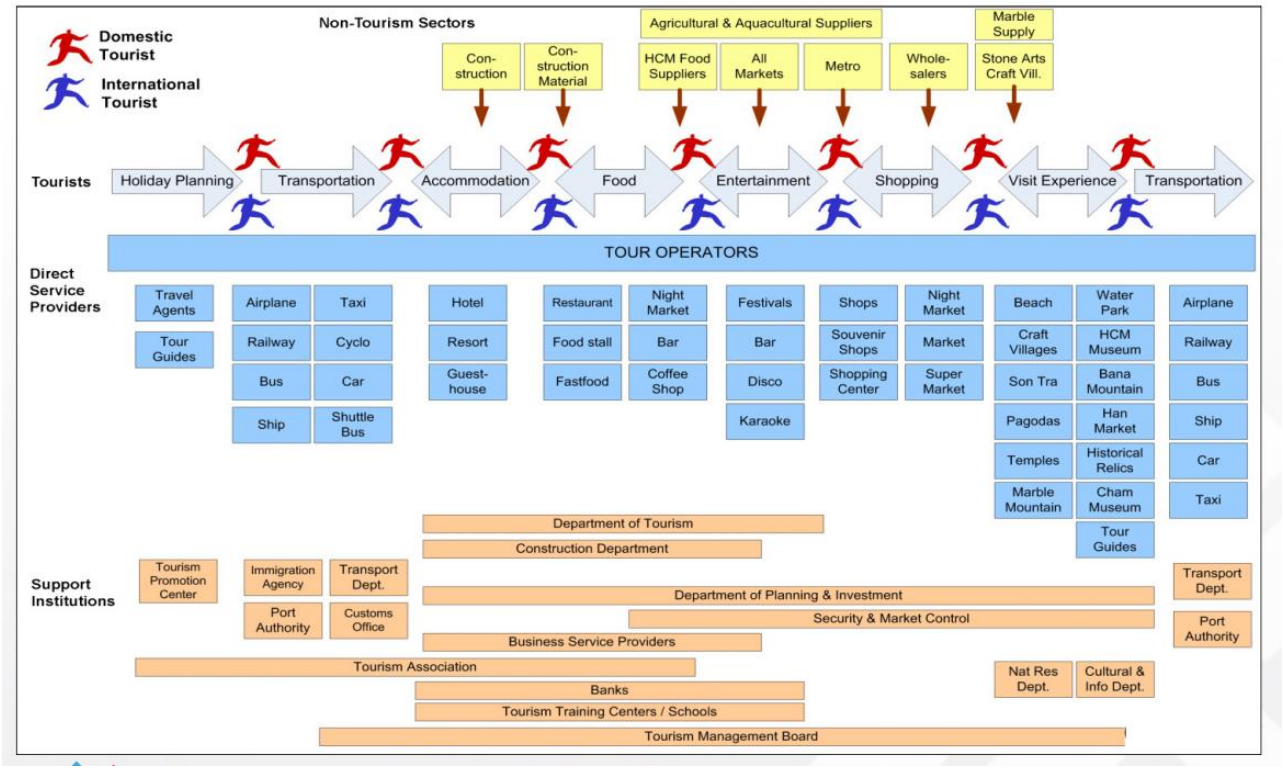
Source: Adapted from Keyser, H. (2010)

The process of distribution begins with the consumer or prospective tourist who wishes to buy a tourism product – for example, an airline ticket, hotel reservation, car rental or package tour. In some cases, consumers book and pay for the desired products directly with the producer. This is known as direct distribution. In direct distribution, the producing company takes full control of taking the product to the market. For example, an operator of shark-diving or whale-watching trips may take direct bookings via the company website. Other consumers may use travel and tourism services, or intermediaries, that are not the actual producers of tourism products to buy the desired product. In indirect distribution, intermediaries provide information about tourism products to tourists, and serve as a sales outlet for tourism producers by processing the sales transaction. For example, a retail store located in a high density tourism traffic area selling tickets for a local tour operators' wine route day trips or retail travel agent selling fly-in cruise packages. Intermediaries typically take commissions on the sales made on behalf of tourism producers (these are typically 20% of the product price, although this may be split between multiple intermediaries; stronger intermediaries dealing with smaller operators or where they are struggling to fill capacity may also apply downward pressure on prices to product owners in order to secure additional margins).

The impact of the commission system on the value accruing to local producers is discussed in more detail in the next section.

The tourism distribution system shown in Figure 34 forms the core of the tourism value chain. For purposes of this chapter, the relationship of tourism producers to suppliers in non-tourism input sectors as well as support institutions may be as important as the relationships along the primary tourism value chain. Figure 35 shows an example of how tourism businesses source various inputs from suppliers in the production of the tourism product. Where local supply of the necessary inputs is not available, necessitating imports either from other parts of the country or from other countries, higher leakage of tourism income occurs. Inadequate support by relevant institutions or regulatory barriers may inhibit competitiveness and ability access markets.

Figure 35: Illustration of tourism value chain



Source: ITC

Access to the destination is determined by issues such as visas and transport access. Air transportation is one of the primary methods of arrival for tourists into Southern Africa, especially for overseas travellers due to the distance. For example, 89.1% of overseas travellers and 90.3% of travellers from African countries outside of SADC arrived in South Africa by air. However, within SADC, only 7.7% arrived by air whilst 92.3% arrived by road. Although, in comparison with South Africans visiting other destinations in Southern Africa, the majority of them travel by road. In 2012, 1,821,560 South Africans departed by air, 3,181,899 departed by road to nearby countries (incl. Botswana, Lesotho, Mozambique, Namibia, Swaziland, and Zimbabwe), and 27,306 departed by sea. However, this is not surprising since the entire Southern African region is one of the least connected by air travel with only 23% of the continent's total air connections. One explanation for this could be that South Africa is the only hub in the region, in part due to lack of scale elsewhere in the region.

Table 22 shows there are many direct flight options from the largest international source markets into either Johannesburg or Cape Town on South African Airways, Delta, British Airways, Air France, Lufthansa, KLM, and Cathay Pacific. However, options to neighbouring countries are much more limited, and generally require visitors to travel via South Africa with the exception of some direct flights to Namibia. Regional flights are dominated by South African Airways, British Airways, Airlink, Air Namibia, and Swaziland Airlink. Whilst many countries have argued that lack of direct air access is a constraint to their tourism growth, there is no available evidence to confirm this. The industry also argues a "chicken and egg" situation – higher volumes would drive decisions to increase air access, but these higher volumes may be stimulated by direct access.

Table 22: Airline routing across major source markets

	UK	US	Germany	China	France	Benelux
Botswana	Fly through JNB or CPT (SAA, British Airways, Airlink)	Fly through JNB or CPT (SAA, British Airways, Airlink)	Fly through JNB or CPT (SAA, British Airways, Airlink)	Fly through JNB or CPT (SAA, British Airways, Airlink)	Fly through JNB or CPT (SAA, British Airways, Airlink)	Fly through JNB or CPT (SAA, British Airways, Airlink)
Lesotho	Fly through JNB-MSU (SAA & Airlink)	Fly through JNB-MSU (SAA & Airlink)	Fly through JNB-MSU (SAA & Airlink)	Fly through JNB-MSU (SAA & Airlink)	Fly through JNB-MSU (SAA & Airlink)	Fly through JNB-MSU (SAA & Airlink)
Namibia	Fly through JNB, CPT, Maun, Luanda, Vic Falls, Lusaka, Accra, or Harare (Air Namibia); JNB/CPT (SAA)	Fly through JNB, CPT, Maun, Luanda, Vic Falls, Lusaka, Accra, or Harare (Air Namibia); JNB/CPT (SAA)	FRA-Windhoek (Air Namibia)	Fly through JNB, CPT, Maun, Luanda, Vic Falls, Lusaka, Accra, or Harare (Air Namibia); JNB/CPT (SAA)	Fly through JNB, CPT, Maun, Luanda, Vic Falls, Lusaka, Accra, or Harare (Air Namibia); JNB/CPT (SAA)	Fly through JNB, CPT, Maun, Luanda, Vic Falls, Lusaka, Accra, or Harare (Air Namibia); JNB/CPT (SAA)
South Africa	LHR-CPT (British Airways), LHR-JNB (British Airways); LHR-JNB (SAA), LHR-CPT (SAA – cancelled)	IAD-JNB (SAA); JFK-JNB (SAA); ATL-JNB (Delta);	MUC-JNB (SAA); FRA-JNB (SAA); MUC-JNB (Lufthansa); FRA-JNB (Lufthansa); FRA-CPT (Lufthansa, summer only); MUC-CPT (Air Berlin, summer only)	HKG-JNB (SAA); HKG-JNB (Cathay Pacific)	CDG-JNB (Air France)	AMS-CPT (KLM), AMS-JNB (KLM)
Swaziland	Fly through JNB-Manzini (Swaziland Airlink)	Fly through JNB-Manzini (Swaziland Airlink)	Fly through JNB-Manzini (Swaziland Airlink)	Fly through JNB-Manzini (Swaziland Airlink)	Fly through JNB-Manzini (Swaziland Airlink)	Fly through JNB-Manzini (Swaziland Airlink)

International travel often entails obtaining visas, which can add to the cost of the trip. Tourism professionals seem to agree that visa requirements have a deterring effect for tourists to travel to that particular destination. It is not the visa regime per se, but the circumstances to apply and to obtain the visa.

When applying for a visa a tourist gains a first impression of the country and he makes his first contact with its national administration. For visitors, the need to obtain a visa prior to their departure incurs financial and non-financial costs:

- *Financial costs include*: Costs for the visa, costs for the visa service, costs for documentation, photos, postage, etc.
- *Non-financial costs include*: giving away the passport temporarily, risk of delayed return of passport, risk of visa refusal, concerns about being controlled during travel, distrust of Government institutions, concerns about not being welcome, negative image in tourist community, perception of intrusiveness into privacy

Error! Reference source not found. sets out the visa requirements for South Africa, and the BLNS countries (with Mozambique included as a comparison). This shows that the SACU countries are relatively open for tourists from most major foreign source markets, with a few exceptions such as China for all countries; South Korea for Lesotho, Namibia and Swaziland; UK and Brazil for Lesotho.

Table 23: SACU tourist visa requirements for major source markets

	Botswana[86]	Lesotho[87]	Mozambique	Namibia[88]	SA[89]	Swaziland[90]
Austria	No	No	V	No	No	No
Belgium	No	No	V	No	No	No
France	No	No	V	No	No	No
Germany	No	No	V	No	No	No
Ireland	No	No	V	No	No	No
Italy	No	No	V	No	No	No
Netherlands	No	No	V	No	No	No
Poland	No	V	V	V	No	No
Portugal	No	No	VA	No	No	No
Russia	No	V	V	No	V	No
Spain	No	No	V	No	No	No
Sweden	No	V	V	No	No	No
Switzerland	No	No	V	No	No	No
United Kingdom	No	No	V	No	No	No
Australia	No	No	V	No	No	No
China	V	V	V	V	V	V
Japan	No	No	V	No	No	No
South Korea	No	V	V	V	No	V
Brazil	V	V	VA	No	No	No
Canada	No	No	V	No	No	No
USA	No	No	V	No	No	No

V= Visa, VA = Visa on arrival

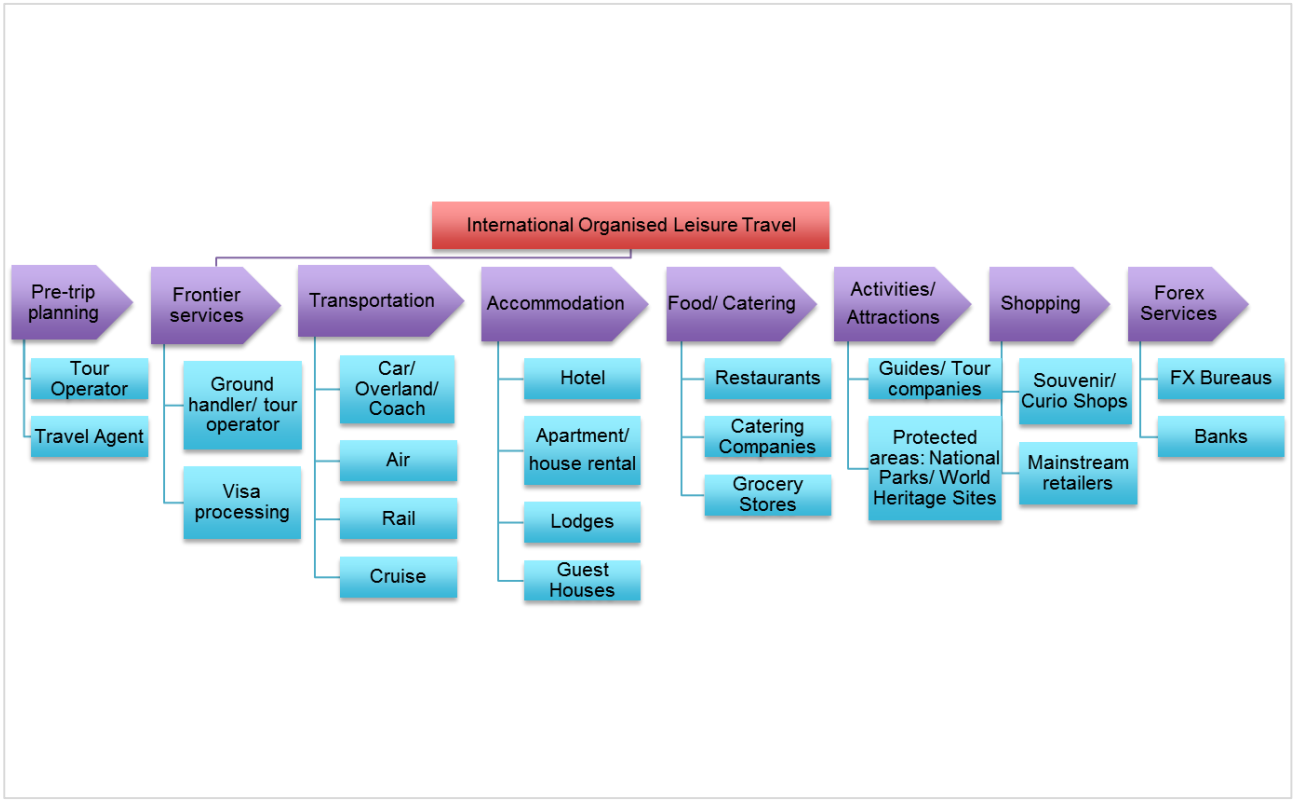
[86] *No visa required for up to 90 days - http://www.projectvisa.com/visainformation/Botswana (updated Feb 2014)*
[87] *No Visa required for up to 14 days – some countries have up to 30 days allowed without visa - http://www.projectvisa.com/visainformation/Lesotho (updated September 2013)*
[88] *No visa required for up to 90 days - http://www.projectvisa.com/visainformation/Namibia (Updated Oct 2013)*
[89] *No visa required for up to 30 days – some countries have up to 90 days allowed without visa - http://www.projectvisa.com/visainformation/South_Africa (Updated September 2013)*
[90] *No visa required for up to 90 days - http://www.projectvisa.com/visainformation/Swaziland (Updated September 2013)*

Over and above visas, ease of movement through borders may also deter leisure travellers, in particular in the case of road transport e.g. border delays, car paperwork. However, there does not appear to be any research on whether or not this is a significant deterrent in the SACU region.

13.2 International Organized Holiday Travel

***International organized holiday travel value chain structure*[91]**

Figure 36: International Organized Leisure Value Chain



Source: Authors

International organised holiday travel takes into account the millions of foreign travellers that purchase travel packages and visit Southern Africa each year. This type of travel is for personal purposes and is either bought as a package or the travel is organised by an intermediary, such as a travel agency or tour operator.

Very few tourists will venture to purchase tourism services directly from service providers in unknown foreign destination because of the associated level of uncertainty and risks. Hence, most tourism products for less mature foreign destinations are sold through traditional distribution channels – i.e. networks of tour operators and travel agents that undertake that pool together, package and provide guarantees for deliveries of tourism services e.g. flights, hotels, tours, transfers, activities and events.

[91] *Sources Include: Statistics South Africa, 2012; Twining-Ward, Louise. "Sub Saharan Africa Tourism Industry Report," The World Bank. 18 November 2009. p.40. http://siteresources.worldbank.org/INTAFRSUMAFTPS/Resources/2049902-1327506860777/FinalSSATourismRpt1118.pdf ; http://www.expertafrica.com/botswana/info/flights-to-botswana ; http://www.sa-venues.com/travel-times.htm*

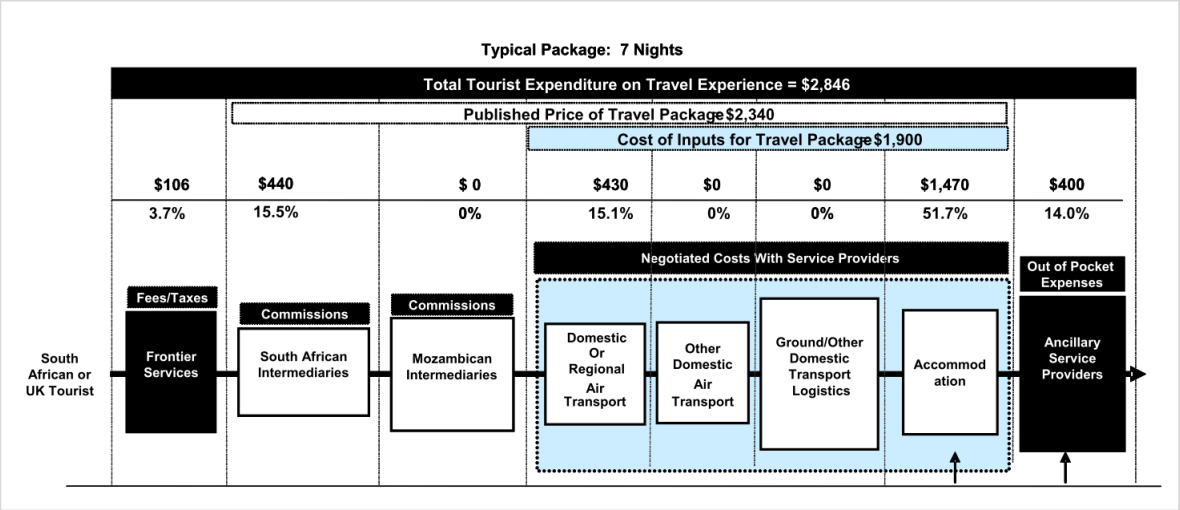
Packages assembled by tour operators typically comprises international return flights/transport, ground transfers within the destination, accommodation on a full, half board or B&B basis, and excursions. Depending on the itinerary in the destination, domestic flights, or in the case of multi-country itineraries, regional flights may also be included. Visa fees and additional excursions are generally not included.

The process by which the package is assembled depends on the maturity of the destination tourism sector. In the case of mature destinations, FTOs will work with domestic (inbound) tour operators to assemble everything other than the international flight segments. Where the local industry is immature, the FTO will directly assemble the entire package, booking international flights via global reservation system (GRS); connecting flights via a hotel or a domestic agent; and accommodation, transfers and excursions from the originating country.

Foreign tour operators are generally able to obtain or negotiate discounts on the published or rack rate of every component of the package. The extent of the discount is influenced by the purchasing power of the FTO, the utilisation rate of the product, the ability of the product to access market and so forth. Packages are sold at a price higher that the combined cost of the package elements – the difference between the two prices accrue to the FTO as commission. The cost of a package will typically be lower than the cost of a self-assembled trip. This is particularly true for unknown or immature destinations.

Figure 37 shows the value chain of a travel itinerary for an upscale South African tourist going from Johannesburg to Quilalea Island, as shown in. This itinerary is assembled in a 7-night travel package priced at US$2,340 for a double occupancy room, in a 4-5 star hotel. The cost of food and drinks and some events (e.g. diving) are all included in the package price. In this case, domestic intermediaries (e.g. Mozambican tour operators and travel agencies) and other ground operators play very little role, and do not appropriate any significant value within the chain. The main economic agents that influence the costs and value of a tourism product in this segment of the market are: the South African intermediaries, regional or domestic airlines that fly to Pemba, and the hotel/resorts. South African intermediaries account for 19.2% of the published package price, and 15.5% of total tourist expenditures respectively. Should the hotel/resort have any foreign ownership, the percentage leakage, or income that does not accrue to the local economy, will be even higher.

Figure 37: Example of value capture in a regional tourism value chain



Source: ???

Pre-travel arrangements may be purchased as a pre-arranged package directly through a tour operator such as Exodus, Airtours (both part of TUI Travel plc), Abercrombie & Kent, Gap Adventures, or Kensington

Tours. For some package travel, dates and itineraries are set and travellers have no ability to make changes based on their preferences or availabilities, and for other packages, travellers may use the suggested itinerary and make revisions based on their personal needs (See Appendix C for examples). Kensington Tours, for example, provides an itinerary that travellers can purchase and then Kensington makes all the arrangements, but dates are flexible. Exodus, on the other hand, has specific tour dates that cannot be changed. For many of these packages, cross-border travel is determined by the tour company. Most of these tours are fully inclusive except for gratuity, initial transportation, and some meals or activities. Travellers may also work with an intermediary (e.g., retail travel agent) to put together different trip elements such as transportation, accommodation, and activities. In both cases, pre-payment is usually made directly to the travel company, who then disperses the money to individual operators or service providers. Foreign travellers can choose from a variety of travel companies that are based in their home country (outbound operator) or they may also choose to use a travel operator located in the destination (inbound operator). In the case of the latter, travel arrangements may go through South Africa for all of the tourism within the region, as many of the larger regional travel companies are headquartered in South Africa. Vertical integration at this stage is not unusual; one exception is Wilderness Safaris, who requires clients to book with one of their preferred agents.

Within the region, tourists on escorted/accompanied tours are transported by means of coach, mini-bus, sedan vehicle or specialised overland vehicle, depending on the nature of the tour, group size and exclusivity of the tour. Outbound tour operators who do not own fleets of vehicles, accommodation, etc. appoint destination-based ground handlers (inbound operators) to deliver the parts of a tour sold through the tour operator. The ground handler's business is to take care of land arrangements at the destination, including hotel transfers, accommodation, sightseeing and activities, and other arrangements. To deliver these services, ground handlers may own their own ground equipment and facilities, such as vehicles and accommodation, or rent these from other tour operators or individuals.

For self-drive organised tours, car hire is an effective mode of transport. There are many multinational operators in this sphere, notably Avis, Europcar, Hertz, and Budget. Many car hire companies allow their customers to take the cars across borders, which facilitates inter-regional travel. Coach hire companies and overland tour operators, are also popular methods of inter-regional transport, with luxury rail services being a niche mode of travel.

Hotel and lodge stays are a popular choice of accommodation within the international organised holiday travel segment. Many international hotel chains operate within South Africa almost exclusively, such as Hilton, Hyatt, Radisson, and Protea (owned by Marriott). Regional hotel groups such as Sun International, Tsogo Sun, Peermont Mondior/Peermont Metcourt, Wilderness Safaris, Mantis Collection, and &Beyond own properties across the region.

Table 24: Major hotel chains across Southern Africa

	Botswana	Lesotho	Namibia	South Africa	Swaziland	Other SSA locations
Southern Africa-owned/originating						
Tsogo Sun				X		Kenya, Tanzania, Mozambique, Zambia, Nigeria
Protea				X		Kenya, Malawi, Namibia, Nigeria, Tanzania,

	Botswana	Lesotho	Namibia	South Africa	Swaziland	Other SSA locations
						Uganda and Zambia.
City Lodge Group	X			X		Kenya
&Beyond	X		X	X		Kenya, Mozambique, Tanzania, Zimbabwe, Zambia
Sun International	X	X	X	X	X	Nigeria
Cresta	X					Nigeria, Zambia, Zimbabwe
Wilderness	X		X	X		Congo Kenya Malawi Seychelles Zambia Zimbabwe
Tourvest				X		Kenya, Uganda, Tanzania (operator)
Peermont Mondior/Peermont Metcourt	X			X		
International brands						
Lonrho (Zim/UK/SA)	X			X		DRC, Mozambique
Radisson				X		Angola, Mozambique, Zambia, Kenya, Mali, Senegal, Ethiopia, Nigeria
Hilton			X	X		Kenya, Ethiopia, Tanzania, Nigeria, Cameroon, Equatorial Guinea
Hyatt				X		Tanzania, Senegal
Accor (brands include Sofitel, Novotel, Mercure, Ibis, Pullman, Orbis)				X		96 hotels in Africa, incl. Senegal, Guinea, Cote D'Ivoire, Gabon, Equatorial Guinea, Nigeria, Cameroon, Chad, Benin, Togo, Ghana, Madagascar, Reunion, Mauritius

International travel conglomerates with a presence (through sub-brands) in Southern Africa include TUI, Thomas Cook, Virgin Holidays, Accor and KUONI. There are also many specialist operators that organise "voluntourism" experiences, where travellers come to experience the country and contribute their time and skills to a volunteer project or initiative. Some examples include: People & Places, Volunteer Africa 32 Degrees, Aviva, All Africa Volunteers, African Impact, and Calabash Tours.

Overview of activities in SACU[92]

South African companies are involved in all stages of the value chain, and many of the main players operate elsewhere in the region.

The main South African operators in the *pre-travel* stage of the value chain include Tourvest, Thebe Tourism, and BidVest, many of which have vertically integrated most or all of the steps of the tourism value chain. Tourvest operates a variety of travel services companies, typically specialising in specific types of tourism such as sporting and business events (e.g., Indo Jet Sports, TEAM, Event Dynamics) and inbound tourism (e.g., Welcome Tourism Services, Focus Tours, Sense of Africa – Namibia, SST Travel, Your Africa, Journeys2Africa).

There are also many outbound operators in source market countries. TUI operates through subsidiary outbound operators Intrepid Travel, and Exodus, and inbound operators, such as African Travel Concept, in South Africa offering various cross-border packages. Some of the major US package tour operators that offer cross-border travel include: Abercrombie & Kent (tours to South Africa, Botswana, and Namibia), Kuoni Travel Group/Kuoni Private Safaris/DMC (South Africa, Namibia, Botswana, Lesotho, Swaziland), and Explore. For UK travellers, main operators include ITC, Thomas Cook, Carrier, and Virgin Holidays, which offers many holiday packages in South Africa and Botswana, especially cross-border scheduled packages (e.g., Kruger & Kingdoms).

In terms of *transportation* to destination, British Airways, Lufthansa, South African Airways, and LAN Transport (part of Latam Airlines Group) are the major players in air travel, although there are some charter companies that operate, in particular during peak seasons. Due to the distance for international travellers outside of the region, air transit will be the primary mode of initial transportation. For the large European and American source markets, South African Airways, Delta, Air France, KLM, Lufthansa, British Airways, and Cathay Pacific operate direct flights into Johannesburg and Cape Town. Cruise operators such as MSC cruises and rail companies such as Shongololo Express and Rovos Rail play a role as well (but handle only a small proportion of total arrivals). Upon arrival, many travellers use ground transport to travel from one destination to another. In terms of coach tours, Hylton Ross (Cullinan Holdings), and Springbok Atlas Tours and Safaris (in the process of becoming part of Cullinan Holdings), are some of the most well-known companies. Budget also operates coach charters. Coach charters also generally provide a tour guiding service, so many of these companies operate in two stages of the value chain: transportation and activities. Overland tour operators with specialist vehicles, such as Nomad, Drifters (part of Tourvest), Sunways Safari, also provide packaged offerings. Avis (part of Barloworld Group) and Europcar (part of Imperial Group and affiliated to the global brand) are the major players in the car hire space. However, many others exist, such as Budget, Hertz, Sixt, Thrifty, Tempest, National, and Value. Many of these companies allow, sometimes with a fee, drivers to take the cars into neighbouring countries.

---

[92] *Sources Include: http://www.sanparks.org/about/news/default.php?id=55924 ; http://www.thekingdomofswaziland.com/downloads/STA/resources/Swaziland%20Marketing%20Strategy.pdf ; http://www.thekingdomofswaziland.com/pages/tour-safari/*

For the major players in *accommodation* within South Africa, please reference Table 24.

Many of these companies are also involved in other steps of the value chain such as in *food and catering* and *activities and attractions*, especially those that operate casinos and resorts. In the case of voluntourism, tourists tend to stay in smaller, independently owned accommodation, such as home stays and backpacker lodges.

In addition to the multitude of non-chain restaurant outlets, restaurant chains that tourists may visit include Spar, Nando's, Cresta, Mugg & Bean Wimpy, News Café due to their footprint across the country. There are also the catering companies on board trains, cruises, and airlines e.g. Bidvest Catering. However, it is difficult to determine the main players here because one cannot differentiate the tourist spend from regular spend, since they generally go to the same places to eat or purchase foodstuffs. Mugg & Bean and Wimpy are two to note (part of Famous Brands group), because they have contracts to run restaurants within some of the national parks, such as Kruger National Park, and are often used as stops for coach trips because of their reliability/consistency, capacity and multiple locations. Under SANPark's new food and beverage contract for various national parks throughout the country, Ciao! is also scheduled to operate the Skukuza Selati restaurant, with Cattle Baron and Bistro providing services for take away at the camp's restaurant.

For activities and attractions, besides the aforementioned coach tour operators, Wilderness, &Beyond, and Mantis Collection are some of the major players. However, this stage also includes many quasi-government operators (e.g., national parks) and smaller, independent operators. Hotels may be involved in this stage as an agent for a tour operator; whenever the hotel travel desk sells an activity, the hotel receives a commission, although some of that money may also be repatriated. The tour operators are also the ones to determine cross-border activity. For example, a tour can either drive through Swaziland, or it can stop in Swaziland as part of a day's activity. The decision is based primarily on the quality and diversity of product offerings and the availability of time (especially on shorter trips).

Shopping includes curio shops and stores specifically targeted to tourists, such as souvenir stores and those found in the airport and nearby tourist sites. Tourvest also holds concessions for shops at Robben Island, Kirstenbosch, Cape Point, Maropeng and the Two Oceans Aquarium. The Diamond Works in Cape Town, Stellenbosch and Franschhoek are also owned by Tourvest. Tourvest recently signed an agreement with SANParks to operate in Kruger National Park, Tsitsikamma, and Addo Elephant Park. Duty Free (in-flight and within airports) shopping is also an important part of this retail offering. Tourvest's in-flight retail services trade on 13 different international airlines including British Airways, Virgin Atlantic, South African Airways, Vueling and Kenya Airways. Craft markets can also be included. Tourists also tend to shop for non-souvenir items such as clothes, jewellery, and home accessories, although the spend for these items is difficult to determine since non-tourists are consumers of these items as well. Much of the spend in the "International Organised Holiday Travel" is directed by the guides and tour operators, as they take their clients to specific stores and locations for shopping. When clients make a purchase, the guide and the company generally receive a commission. This is considered by some suppliers to be a barrier to smaller players due to the ability of large, established operators to offer more customer and larger commissions.

For international travellers, currency exchange is a necessary part of travel. Whilst banks and credit card companies account for a good deal of international currency conversions and transactions, forex companies such as Money Transfers, Moneygram, Western Union (affiliated with ABSA bank), Travelex, and American Express continue to play an integral role in this step of the value chain. Some of the forex operators are

even integrated into larger tourism conglomerates, such as the case with Tourvest that owns the right to the American Express foreign exchange brand in Africa and acts as a sales agent for Western Union.

Many patterns of the "International Organised Holiday Traveller" can be observed across the Southern African region, with differences noted below:

Botswana, while not as dominant as South Africa, has a meaningful share of the sub-region's international organised holiday travel activity, to date focusing on high value, low volume tourists. Some larger US-based tour operators that offer luxury packages to Botswana include: Absolute Travel, Roarafrica, Abercrombie & Kent, and African Safari Consultants (South African presence as well).

Transportation is mainly by air or by land (including car hire, coach hire, and overland tour operators). Air transport is exclusively through South Africa by way of Cape Town or Johannesburg using British Airways, South African Airlines, or Airlink. There are multiple flights from Cape Town and Johannesburg to Maun (Botswana) for tourists who want to visit the famous Okavango Delta. From Maun, tourists generally must take a charter flight to access campsites within the Delta; Wilderness Air is the main provider of these charter flights, with other providers including Major Blue, Delta Air, Mack Air, Kavango Air. Popular car hire companies include Avis, Europcar, Hertz, Budget, Sixt, Alamo, National, and Thrifty.

Some of the South African hotel operators have properties in Botswana, namely Sun International, Peermont, and &Beyond. In addition, Cresta and Wilderness Holdings Botswana both operate extensively around the country.

Most food is imported from South Africa, as Botswana's agricultural sector is not as well-developed as South Africa's. Some of the major restaurant chains include: Nando's, Mugg & Bean, and Chicken Licken.

Wilderness Holdings Botswana and &Beyond dominate the activities and attractions stage of the value chain, especially with their footprint in the Okavango Delta safari market. Other operators specialising in Botswana include: Ker & Downey, Linyanti Explorations, Orient-Express Safaris (originally Gametrackers), Sanctuary Lodges & Camps (part of Abercrombie & Kent), and Uncharted Africa Safari Co.

For **Namibia,** pre-travel arrangements are made using many of the same tour operators as those for South Africa and Botswana. However, the German tourist market is quite important to Namibia, and Dertour and Wikinger Reisen are two German tour operators that offer tours within Namibia. Dertour offers 27 different tours within Namibia; their packages include hotels, meals, ground transport, and German-speaking guides (using a local operator). Wikinger Reisen offers 14-19 day guided adventure or hiking holiday packages that include flight, accommodation, ground transport, meals, and hiking guides. They also offer a cross-border package with Botswana.

Transportation into Namibia by holidaymakers is mainly by land (53%) and by air (47%). However, cruises and rail travel are options for travel into Namibia. For example, the Shongololo Express operates the "Dune Express" leaving from Johannesburg and Rovos Rail operates a Namibian Safari departing from Pretoria, both ending in Namibia. Major airlines operating out of Windhoek include Air Namibia and SAA, although flights generally originate in Johannesburg or Cape Town. Although, there are some direct flights from Maun, Luanda, Victoria Falls, Lusaka, Accra, and Harare. For German travellers, Air Namibia operates a regular flight from Frankfurt. Car hire operators include Avis, Europcar, Budget, Hertz, and Thrifty.

Major hotel operators in Namibia include Hilton and Sun International; Wilderness Safaris and &Beyond operate a variety of lodges for safari tourism, although none of these are local companies.

Wimpy, Nando's, and Mugg & Bean operate within Namibia.

Wilderness Holdings Botswana and &Beyond dominate the activities and attractions stage of the value chain.

Package travel to **Swaziland** is generally sold as an add-on to a Southern African tour. Some of the key outbound operators include: Intrepid Travel (Australia), Geckos Adventures/Peregrine (Australia), Cox & Kings (India), Kuoni Group (Switzerland), and Abang Africa (South Africa), which specialises in Fair Trade tourism. All Out Africa, which is a Swazi company, is involved in voluntourism. Most package travel is sold by boutique operators; the only operators that sell to more than 100 passengers annually are Air Travel Bargain, African Travel, and Acacia Adventure Travel.

Some of the main inbound tour operators based in Swaziland include: All Out Africa Tours, All Out Africa Volunteers (voluntourism), Chasing Horizons, Ekhaya Cultural Tours, Hoofbeat Swaziland, Malolotja Canopy Tours, and Myxo's Woza Nawe Tours, and Swazi Trails.

Transportation into Swaziland is either via South Africa or Mozambique, whether it be by land or by air. Avis and Europcar both operate car hire services in country. Transmagnific and Sky World Traveler offer road transport into and around Swaziland.

The larger chains that operate within Swaziland are South African, such as Sun International and Orion Group. Besides for chain hotels, Swaziland offers many independently owned hotels, guest lodges, B&Bs, and hostels around the country.

Major food/catering companies include Nando's and Wimpy.

All travel into **Lesotho** goes through South Africa. The primary method of transportation in Lesotho is by road at 97.5% of total visitors; a striking 2.5% used air transportation. Air transportation is limited, however, since the only commercial options are through Johannesburg on Airlink or South African Airlines. Europcar is the only major car hire service operating in country.

Sun International operates hotels within Lesotho; there are few other large-scale hotels in the country, although there are a few independent inns, lodges and guest houses, as well as some accommodation within the Tsehlanyane National Park.

Major food/catering companies operating within Lesotho include Wimpy.

Opportunities and constraints to global and regional value chains

All countries across Southern Africa participate to some extent in every stage of the international organised holiday travel value chain. However, South Africa leads in every stage of the value chain. Some of the barriers to increased activity across the value chain include access to markets, invested capital, quality assurance and standards aligned to international systems, and ability to price competitively. Within the organised travel space, it is difficult for independent companies along the value chain to initially become a preferred provider of an international tour operator. The primary reason for this is that independent companies generally do not have the bargaining power or integrated offering and hence cannot price as competitively as some of the larger, diverse firms like TUI or Tourvest. Besides the South African firms, and some of the Botswana-owned firms, the majority of tourism companies in Southern Africa are small,

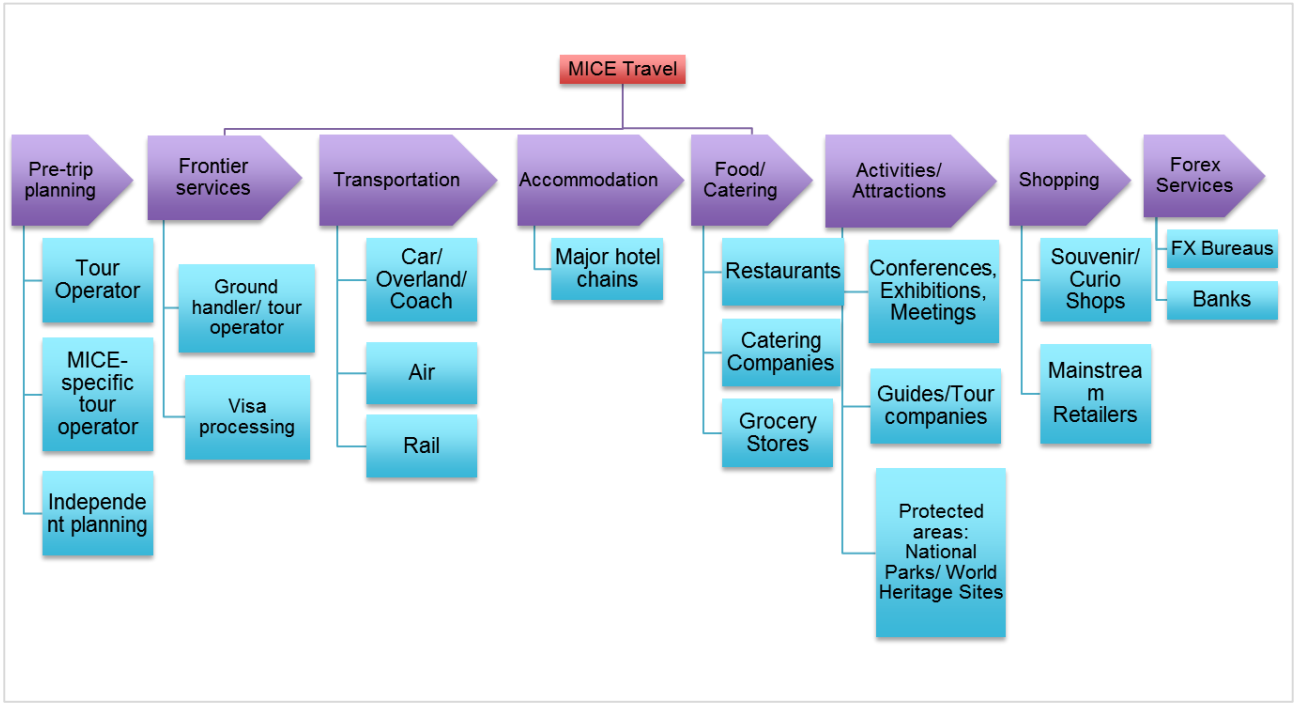
independent operations. For smaller, independent firms to be able to compete in the organised travel space, actions to increase their scale, capacity and product offering, joint marketing and bargaining power would be needed.

However, there are opportunities for increased activity, Lesotho and Swaziland in particular are under-exposed. Most overseas tourists, such as those from Europe, rely on travel agents and tour operators for information about Swaziland and arrangements. This makes sense as Lesotho and Swaziland are included on itineraries for Southern African tours. However, they are not included in all tours and are bypassed in favour of other activities or a quick stop is made en route to somewhere else. Both countries could develop product that is more aligned to target markets, increase their marketing activities around tourism, create partnerships with some of the larger tour operators, and provide incentives for tour operators who schedule to spend a night or two in country, rather than just passing through.

13.3 Meetings, Incentives, Conferences and Exhibitions (MICE)

MICE value chain structure in SACU[93]

Figure 38: MICE Value Chain



Source: Authors

MICE tourism is also known as "Business Tourism," and includes conferences, events, exhibitions, meetings, and incentives. Business Travel is generally for individual meetings, deal making, and wholesale shopping – travel that is very specific to a company and hence the choice of destination is unlikely to be influenced by marketing activities. MICE tourism can be either organised or independent. MICE is a priority segment for

[93] *Sources Include: Statistics South Africa, 2012; Twining-Ward, Louise. "Sub Saharan Africa Tourism Industry Report," The World Bank. 18 November 2009. p.40. http://siteresources.worldbank.org/INTAFRSUMAFTPS/Resources/2049902-1327506860777/FinalSSATourismRpt1118.pdf ; http://www.expertafrica.com/botswana/info/flights-to-botswana ; http://www.sa-venues.com/travel-times.htm*

many National Tourism Offices, as the destination's product offer and tourism infrastructure are key factors in destination selection, and targeted marketing to MICE operators can yield high travel volumes. The source markets for MICE tourism will also be separated into international and regional travellers.

MICE tourism may be organised in some part by an operator due to the nature of the travel and the clientele. Including arrangement of transportation, lodging, meals, and activities, MICE operators may also provide visa and passport services, foreign exchange, and organisation of large conferences and events. Globally, there are many specialty companies that focus just on MICE tourism; some of the most prominent ones operating in **South Africa** include: BCO, Event Dynamics (formerly Global Conferences, part of Tourvest), Kagiso, Tourvest, and other Professional Conference Organisers (PCOs). For incentive travel, operators in South Africa include: Into Africa, Giltedge, Impact, XO Africa, Eish Travel, Sandown, Dragonfly, Falcon Africa, and WOW Incentives. Whilst these are primarily South African companies, many of them operate across the region.

Table 25 summarises the locations of operations for these MICE tourism organisers.

Table 25: Overview of MICE operators in SACU

		Countries in which operate					
Operator (country in which based)	**Type of travel**	**B**	**L**	**N**	**SA**	**S**	**Other**
Dragonfly (South Africa)	Meetings & conference organisation, incentive travel	X		X	X		Operates in 10 Southern and Eastern African countries
Eish Travel/DMC South Africa (inbound incentive travel & conferences) (South Africa)	Incentive travel, Meeting/ Bosberaad/ Conference planning, corporate and client events	X		X	X		Locations around the world
Falcon Africa (South Africa)	Incentive travel	X			X		Kenya, Madagascar, Rwanda, Tanzania, Zambia, Zimbabwe
Giltedge (South Africa)	Incentive travel	X		X	X		Mozambique, Zambia, Kenya, Tanzania, Zanzibar, Rwanda, Madagascar, Mauritius and the Seychelles
Event Dynamics (formerly Global Conferences, part of Tourvest) (South Africa)	Association conferences, group sports travel management, meetings and events, incentive travel			X	X		

Travel Motives (South Africa)	Incentive travel	X		X	X	X	Zambia, Zimbabwe, Mauritius, Mozambique
Into Africa (South Africa)	Conferences, events, incentive travel	X		X	X		Victoria Falls, Kenya, Tanzania/ Zanzibar, Mozambique
Travel Mediate (represents DMCs in Benelux) (South Africa)	Meetings, conferences, events, incentive travel		X	X	X		Global destinations
Sandown Tours and Incentives (South Africa)	Incentive travel	X		X	X		Mauritius, Mozambique, Zambia, Zimbabwe
WOW Incentives (South Africa)	Incentive travel, events				X		Global locations

Methods of transportation are comparable to those in the "International Organised Holiday Tourism category," although cruises are probably less likely. Due to the type of clientele for incentive travel, charter flights are probably more popular than with other groups. Some of the main companies operating in Southern Africa include: Absolute Aviation Group, ACS, Comair Flight Services, Charter Africa (operates in Botswana, Malawi, Mozambique, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe), Elite Jet (part of Medair Charter, 51% by Mvelaphanda Holdings), ExecuJet (large charter company with worldwide operations), King Air (sister company to King Air Services), Mission Aviation Fellowship, National Airways Corporation Charter (largest general aviation company in Africa), Swift Flite, TAB Charters, and Zenith.

Accommodation will, for the most part, take place at the large chain/brand hotels, such as those mentioned above. Some target events and conferences e.g., Sun International, Tsogo Group. The MICE category often involves large groups of travellers, and hence hotels must be able to accommodate large numbers of guests and provide consistent quality. The limited room capacity and variable product quality of many independent hotels is an obstacle for organisers of conferences and large events.

In terms of food and catering, local caterers will most likely be contracted to work at the event or conference. However, most of the foodstuffs will be imported from South Africa.

Activities and Attractions generally revolve around the conference, event, or exhibition, although it is not uncommon for travellers to extend their trips or take a few days to do some traditional sightseeing. Companion activities and pre- and post-conference tours included in conference programming. Venues for major events and exhibitions are sometimes linked to hotels. For example, many hotels have conference centres or designated meeting rooms within them, or they may have some type of agreement with a nearby convention centre or showground. Government investment may also dictate these linkages. The organisation of the conference/event and its itinerary is likely planned through the MICE operators. Some of the activities outside the conference or meeting may even be sponsored by the event.

Opportunities and constraints to global and regional value chains

All countries across Southern Africa participate to some extent in every stage of the MICE tourism value chain, just as with the international organised holiday travel value chain. South Africa also leads in the value chain, especially in pre-trip planning. Some of the barriers to increased activity across the value chain include large enough venues for meetings, conferences, and events; transportation and lodging constraints, access to international MICE tourism markets (including lack of targeted marketing), and lack of chain hotels and catering companies. Transportation and large enough facilities and hotels to accommodate conferences are certainly issues within BLNS. Air transportation and direct/affordable access is especially an issue for overseas MICE tourists, and may be one explanation for why South Africa is dominant in this segment. Even if Gaborone or Windhoek had the appropriate conference facilities and adequate hotel beds for participants, transportation would be an issue. For a conference like the Mining Indaba, which is held in Cape Town, over 7,800 participants come from over 100 countries. If such a conference were relocated to Gaborone or Windhoek, participants would have difficulty travelling to the destination and it would require additional cost and time since there would be transfers in South Africa. For countries like Lesotho and Swaziland that have very little MICE tourism in comparison with South Africa, Namibia, and Botswana, their barriers are not only transportation and facilities, but also the external perception of what the countries have to offer, as well as a lack of chain hotels and catering companies. MICE operators prefer to use providers they are familiar with or who have a strong reputation, therefore it is difficult for independent hotels and catering companies to break into the MICE tourism market. Since MICE operators may deal with very large contracts and significant numbers of travellers, they are unlikely to take risks by testing independent providers.

Namibia is likely the best prospect for increasing its involvement in MICE tourism, since it has international hotel chains in Windhoek, a direct flight to Europe, and a plethora of activities that could appeal to incentive travellers. The Namibian government could help by marketing Namibia as a MICE tourism destination. Botswana also has some potential due to the DTC deal, as it is expected that new facilities and hotels will be built to accommodate the diamond traders. In the future, if there is enough demand, there is even the potential that direct flights from some of the diamond hubs will begin service. With some encouragement from the Government of Botswana, they could begin marketing Gaborone as the location for any jewellery or diamond conferences, meetings, and events.

However, there may also be opportunities for smaller group meeting and incentive travel to BLNS countries, in particular for companies within the region wanting natural beauty or adventure experiences e.g. small group strategy sessions, nature-based incentive travel.

13.4 Foreign Independent Travel (FIT)

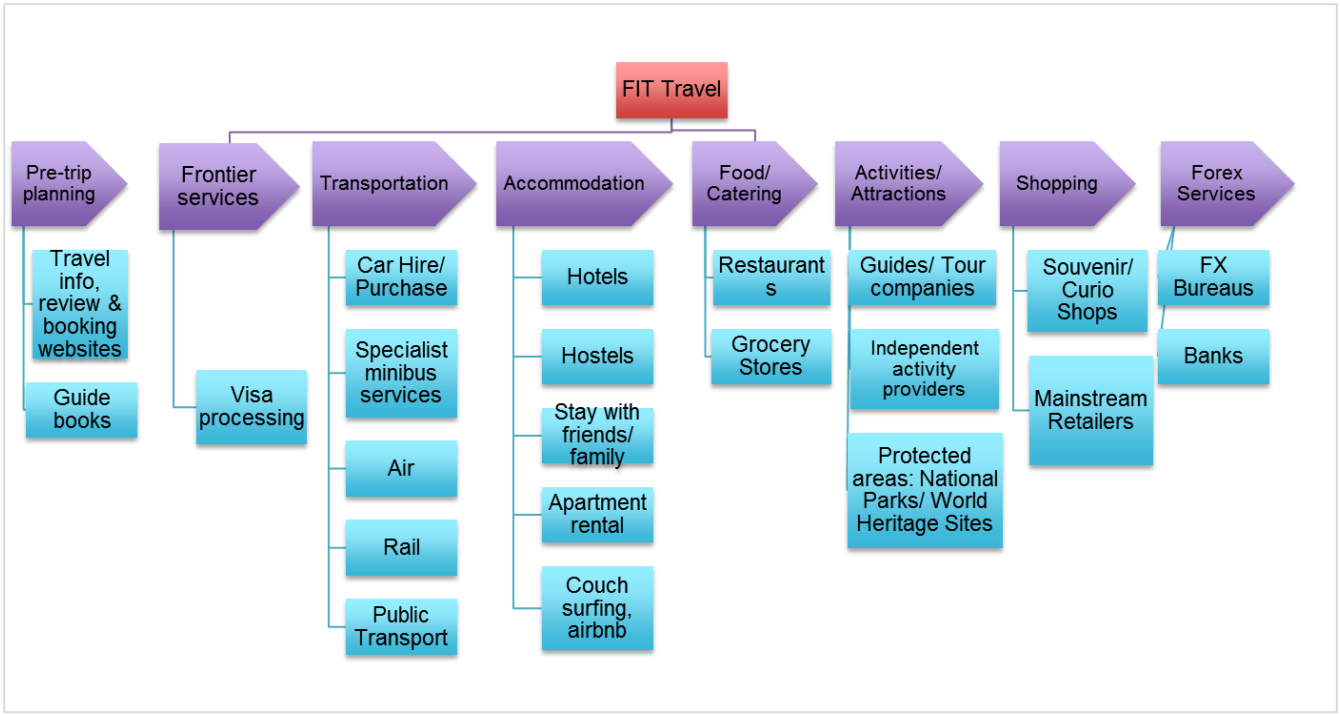
FIT value chain structure in SACU

The Foreign Independent Traveller is someone who organises his or her travel independently. For this report, this category includes international and regional independent travellers. The primary difference between the traveller who uses a service to plan organised travel and one who does not is not economic, but rather preference for style of travel. For example, organised travel generally comes as a package that gives the traveller limited ability to make changes, especially during the trip. Independently organised travel, however, enables the traveller to have complete freedom of choice over itinerary, accommodation, meals, activities, etc. Independent travellers also do not wish to be part of a group. The independent traveller's budget can range from modest (e.g., backpacker) to extravagant.

Figure 39 illustrates the FIT value chain. One of the most significant differences between the Foreign Independent Traveller and others occurs during the pre-travel planning process. FIT will plan travel by themselves using websites such as Agoda, Tripadvisor, hotels.com, booking.com, hostelbookers.com, ebookers, Safarinow, hostel bookers, Nightsbridge (SA and Namibia), flight check sites such skyscanner.net, edreams, flightsite, and the websites of major airlines, such as South African Airlines. In some cases airlines offer discounts on affiliated operators e.g. car hire and hotels. They may also make use of discounting websites such as Groupon, or on the higher-end, Gilt.

In terms of transportation, independent travellers will still use the major air carriers and car rental companies, but they may also use public transportation, less brand-affiliated car rentals (e.g., Best Beetle in Cape Town), camper hires, car purchases (for resale at the end of the trip), or the BazBus (in the backpacker segment). On the higher end, independent travellers may hire a driver.

Figure 39: FIT Value Chain



Source: Authors

Foreign Independent Travellers' lodging options also look quite different than others. While many will stay at popular chain hotels, the FIT segment also tends to explore alternative options such as:

- Luxury independent boutique hotels and guest houses
- Bed & Breakfasts
- Apartment, house or villa rentals (using either international or local rental agents such as luxuryretreats, or websites like Gumtree), although this part of the market is less developed outside of South Africa in the region to date
- Timeshare/fractional ownership schemes such as RCI and Platinumdestinations
- Mediated peer-to-peer markets such as airbnb, couchsurfing

For some of these accommodation options, Nightsbridge may facilitate payment between parties.

In terms of food purchases, many independent travellers will also frequent restaurants, quick service restaurants, and supermarkets such as Shoprite, Pick n Pay, Spar, Woolworths, and Massmart. All of these

supermarket chains operate in multiple countries across the Southern African region; Massmart/JUMBO operates across all five countries.

The independent traveller will plan activities and attractions. However, the traveller may purchase services from a specialty operator for activities that require equipment or a guide, such as: shark diving, bungee jumping, or parasailing. For the independent traveller, cross-border travel might be influenced by some of the cross-border collaboration efforts by Southern African countries, such as Transfrontier parks and the Cape to Namib route. Transfrontier parks include Ais/Richtersveld Transfrontier Park (Namibia/South Africa), Kgalagadi Transfrontier Park (Botswana/South Africa), Limpopo/Shashe Transfrontier Conservation Areas (Botswana/South Africa/Zimbabwe), Great Limpopo Transfrontier Park (Mozambique/South Africa/Zimbabwe), and Maloti-Drakensberg Transfrontier Conservation and Development Area (Lesotho/South Africa). National parks are organised to be attractive and conducive to the needs of independent travellers, therefore the Transfrontier Parks may appeal even more to independent travellers, especially those wanting to self-drive. The Cape to Namib route is a partnership between Cape Town Routes Unlimited, Northern Cape Tourism, and Namibian Tourism to encourage self-drives along the N7 between South Africa and Namibia. The initiative's website lists a variety of suggested activities and stops along the route.

There should not be much of a difference between the major players within Shopping and Forex Services.

Opportunities and constraints to global and regional value chains

Botswana, Lesotho, Namibia, South Africa, and Swaziland all participate to some extent in the Foreign Independent Travel value chain. Swaziland is actually quite a significant player in this space, as the majority of its tourists come from South Africa and rely on recommendations from relatives and friends before making travel bookings directly with providers. However, this is not the case for tourists from further afield. South African tourism has been successful in attracting independent travellers, especially backpackers, with the opening of a multitude of Backpackers' lodges and the BazBus; it also attracts higher-end independent tourists, including for repeat visits. Poor communication/marketing channels is one of the primary barriers to increased activity since foreign independent travellers plan everything themselves, and utilise the internet, guides and other resources to acquire information. Collective marketing, building media relations, and increased use of social marketing and social media could assist smaller operators.

At the lower end of the market, inadequate or unreliable public transportation is another barrier, and likely one of the reasons for why some travellers choose package travel over independent travel. Price is another barrier, as package tours generally negotiate a very low price with service providers or are able to achieve economies of scale due to the large number of clients they serve. Therefore, in some instances, a traveller may not be able to afford a trip they planned independently, but they may be able to afford the package.

There is an opportunity for all countries to increase their activities in the FIT segment. Namibia and Botswana in particular have a great variety of activities that are conducive to independent travellers, such as self-drive safaris and the Transfrontier Parks. Since the first point of contact of a FIT tourist and a provider is usually through a website, improving the marketing of these countries on some key websites and social media might be a successful tactic in attracting additional tourists. For Swaziland and Lesotho, since they are both contained within South Africa, there is a great opportunity for these two countries to benefit from independent travellers from South Africa. The BazBus travels around South Africa, including nearby Swaziland and Lesotho. Some collaboration efforts between the three countries to extend the BazBus route to Swaziland and Lesotho would likely increase independent tourists quite significantly in Swaziland and Lesotho.

13.5 Overall Observations on Tourism Value Chains and Areas for Support

Table 26 provides a brief summary of some of the main findings about the structure and dynamics of tourism value chains in SACU.

Table 26: Summary of key observations on SACU tourism value chains

Conclusions/Patterns	Possible explanations/hypotheses
Dominance of South African companies in the chain value	• SA operators have more established access to markets and better resourced marketing support • SA companies more likely to have internationally recognised quality assurance and comply with international insurance requirements • SA has the highest international tourist volumes, and is a major source market for neighbouring countries; it therefore makes sense as a base for operators
High levels of vertical integration relative to other segments.	• Travellers have a higher comfort-level working with one company as opposed to many, especially for long-haul trips • Difficult to access information on multiple locations and alternative products for the individual tourist, easier to find product information from the main players • For independent product owners, accessing market is difficult because of vast geographic spread and resultant cost
Commission practices may restrict access for smaller companies and new entrants.	• Agents at hotels will direct people to the products that offer the highest commission for them, rather than quality, local value, or other factors.
Pre-trip arrangements determine where and the amount of revenue flows.	• The initial point of access is likely to shape the route of a multi-country trip; in most cases this is South Africa • Local operators build the trips around perceived attractiveness of – and interest in – the available product in the region – based on the market segment they are serving; there is demand for mullti-country trips (including SA, Botswana, Namibia and Swaziland, as well as Mozambique), with less demand for Lesotho. • Overall trip length is also determined by available time for their target markets – accessibility of attractions is an issue given the relatively short trips length of many visitors (less than 10 days). As a result. Swaziland is often only getting 1 day allocated in cross-border trips • Even where there are cross-border movements, the flow of revenue is still likely to gravitate towards international and SA players given the ownership and commission structure.
Most overseas transportation must be via South Africa when arriving from countries outside of Southern Africa.	• Johannesburg and Cape Town are large airports and have become hubs for airlines due to the cities' volumes of passengers, commercial activities and infrastructure.
Impact of bargaining power and low margins on	• Large operators in major source markets tend to push prices down, so margins tend to be quite low. .

investment landscape.	

The points below capture some main conclusions (cutting across all segments) on the constraints to development of competitive global and regional tourism value chains:

- **Lack of consistent and reliable data collection and reporting on tourism profiles and patterns to inform decision-making** – support could include capacity building of tourism statistical bodies through allocation of human resources, support for survey systems development, or funding of consistent longitudinal surveys (to date training by UNWTO and UNSTATS has yielded limited results)
- **Lack of a strong, well-resources regional tourism body**: Many of the regional issues identified relate to the mandate of RETOSA; however, RETOSA is struggling to achieve results around issues like grading standards, a Univisa, and regional marketing – support could include pilot initiatives in the sub-region, secondments, capacity building, partnerships to fast-track priority initiatives (however, given that RETOSA is a SADC body, it may be difficult to fast-track decision-making without widespread buy-in)
- **Lack of consistent and internationally recognised quality standards for not only accommodation, but also operators**: Support for countries in the region to establish tourism standards equivalency/recognition with Travelife, Tourcert, as well as support for operators to comply with requirements and pay fees could be beneficial
- **Insufficient and assurance/insurance outside of SA to meet international travel directives**, for example the European Package Travel Directive and associated country-specific regulations which provides protection for tourists against inaccurate information, changes to package components, defaults by products, etc.: Support for extension of SATSA or equivalent bonding to operators in BLNS countries would reduce barriers to securing international clients (there are already a few BLNS members of SATSA, membership costs R2,000 to R7,000 p.a. and includes bonding)
- **Limited export-readiness of smaller operators in the region;** support could include:
    - Support to smaller BLNS operators to package integrated product offerings across multiple operators, and to develop new or join existing marketing collectives (who could serve as de facto local operators/ ground handlers, market directly to tourists and cross-market, as is already being done by “Inspirational Places” and “Classic Safari Camps of Africa”)
    - Training for trade show participation, include pricing and packaging products, meeting client expectations from particular target markets etc.
    - Support for transactional ability e.g. negotiating group rates for Nightsbridge, enabling transactional functionality linked to existing information sharing platforms such as Safarinow.
- **Lack of effective market research and marketing** (and limited resourcing of tourism marketing organisations), including insufficient resourcing to attend the appropriate specialist trade shows and events:
    - Training / awareness raising for operators on marketing through social media (in particular to serve independent traveller market)
    - More data gathering and information sharing on target market segments
    - Support to “piggy-back” more effectively on events like Tourism Indaba e.g. packaging offerings, collaborating to secure larger collective stands
    - Awareness raising of available product amongst international agents (similar to SA Fundi programme) and relationship building with media
    - Support for MICE players (more likely Botswana and Namibia incentive products) to attend EIBTM – costs around $42,500 to attend, which includes up to 57 one-on-one scheduled meetings
    - Support for luxury product providers to attend World Travel Market (WTM) Africa and International Luxury Travel Market (ILTM)

SECTION 5: CONCLUSIONS

This section presents a brief summary of the main conclusions and policy implications based on the overview of value chains presented in the previous sections.

14. SUMMARY AND CONCLUSIONS OF VALUE CHAIN ASSESSMENTS

14.1 Summary of Key Dynamics across Value Chains

This report is designed to provide a basic overview of the currents stage of GVC and RVC development across key sectors / value chains in the SACU region. The depth of analysis of constraints and opportunities in each of these areas is necessarily limited by the overview nature of the assessment. However, below we outline some general findings from the review.

A first, obvious point to be made is that many of the barriers and opportunities identified in the report are industry-specific in nature. Therefore, to develop a plan of action to exploit potential in any specific value chain would require much more in-depth value chain assessment, followed by targeted interventions.

However, some generalized findings do emerge across the value chains:

1. *The region as a whole participates only marginally in GVCs and tends to be concentrated at the highest and lowest stages of chains*: Evidence from the case examples suggests that firms in SACU have limited participation in GVCs, with the notable exceptions of South Africa in automotive and Lesotho and Swaziland in apparel. Otherwise, in just about all cases of global exports (whether or not within identified 'global value chains') exports can hardly be described as 'supply chain trade'. Instead exports tend to be either at the very start of value chains (unprocessed minerals, beef) or at the assembly stage (apparel)
2. *The region as a whole faces serious challenges of distance*: Large distances from the main global markets appear to be one of the main factors limited value chain participation in the region. Even South Africa faces considerable competitiveness challenges due to do distance, which impacts both costs and, critically, time / flexibility. Even within South Africa, sectors like automotive are relatively dispersed geographically, limiting the potential benefits of clusters and raising transport and logistics costs.
3. *Within the region, scale is an even bigger challenge to both GVC and RVC participation, and compounds existing geographical and climatic challenges*: BLNS countries, each with populations around 2 million, face major scale challenges to competing in GVCs and even RVCs. These challenges not only affect the size of the manufacturing sector / cluster that can develop but, perhaps more critically, impact access to industry-specific technical skills and support services that are critical to building a competitive cluster (see below). These scale challenges are compounded, in agricultural sectors, by agri-climatic conditions that limit severely the scope and competitiveness of BLNS countries in most agricultural sectors.
4. *The scale challenge within the region is compounded by huge intra-regional scale imbalance and path dependence which favors industry location in South Africa*: In terms of developing intra-regional value chains, the scale challenges of BLNS are compounded by the fact that the South Africa economy thoroughly dominates the region. With more than 90 percent of regional GDP (and a dominant share of markets well beyond SACU), South Africa is not only the best location to ensure production scale but more importantly it is the obvious place to be for proximity to markets. This is compounded further by the fact that distribution and marketing arrangements tend to already be well-established in South African markets. Therefore, integrating value chain steps in BLNS markets often requires an active shift in strategic approach and potentially establishing entirely new supply chains. Justifying such a move when the vast majority of inputs come from South Africa *and* 90-95 percent of the end market is in South Africa remains a daunting challenge.

5. *Productivity and supply chain weaknesses undermine the potential of BLNS to leverage resource and wage advantages to build a 'Factory Southern Africa'*: Of course, opportunities will exist to leverage the comparative advantages of BLNS in a 'Factory Southern Africa' model, both in terms of accessing low wage labor (in highly labor intensive activities where the economics of production justify incurring higher transport costs) and accessing specific inputs (agricultural and minerals). At the moment, however, BLNS countries face weaknesses in productivity and high transport and logistics costs that undermine this potential.
6. *Trade policy aggravates the problem and undermines potential for downstream value chain development within the region*: And potential for downstream processing, which is most relevant in agro-processing, is constrained by a restrictive trade policy environment that undermines downstream competitiveness in an attempt to protect upstream markets. This can be seen in the intra-SACU trade restrictions on grain and feed, dairy, and poultry, among others.
7. *Perhaps the best opportunities for RVCs can be found in services, particularly in tourism, and their links to goods sectors*: SACU's tourism sectors are already operating in fairly integrated regional value chains (although many barriers still constrain full exploitation of cross-border synergies). Development of this value chain also has significant potential to support downstream value added in sectors like jewellery (diamonds, precious metals), crafts, and others.

14.2 Policy Implications

While the high-level nature of these overviews does not lend well to detailed and prescriptive policy advice, it is worth perhaps outlining some areas where trade and industrial policy may be most relevant to address some of the issues identified above. These include:

- *Addressing barriers to productivity*: BLNS countries are missing out on opportunities to integrate into South African-centered RVCs in part because productivity shortfalls undermine labor cost advantages. This highlights the importance of a focused agenda designed to support productivity upgrading, including skills development, work practices, and access to technology. More broadly, productivity enhancement will be critical for the region as a whole to remain competitive in GVCs, as cost competition from global markets becomes increasingly intense.
- *Trade policy*: As discussed above, trade policy restrictions remain significant barriers to developing links between upstream and downstream producers across the region. While there are obviously other considerations at stake (e.g. support for domestic producers and food security concerns) at stake, efforts should be made at the regional level to at least consider the impacts of these measures on the aim of promoting regional value chains, as well as to consider alternative approaches to achieving the same objectives.
- *Trade facilitation*: Border-related barriers remain a significant constraint to achieving more integrated regional value chains, and more competitive positions in GVCs. Among the particular issues identified in the case examples discussed in this report are:
    - Non-harmonization of VAT creating additional paperwork and impacting on cash flow (in terms of VAT rate and exemptions) – estimated to cost 2% of value of transaction for intra-SACU movements
    - Levies, quantitative restrictions and other protective measures (in particular in agriculture)
    - Onerous administrative procedures e.g. slow processing or delays, standards compliance certificates, SPS measures for agricultural products, road levies, registration as importers, certificates of origin
    - Special licensing requirements, in particular in agriculture

- Differences in labelling requirements across countries.

Moreover, congestion and high costs at key gateway ports in SACU (especially Durban) negatively impact all exporters in the region that are attempting to export into GVCs and access inputs from global supply chains.

- *Transport integration and multi-modalism*: Linked to the issue of trade facilitation, poorly integrated regional transport aggravates the challenges of competitiveness. Part of the problem relates to cross-border transport integration, in particular the restrictions that remain on cabotage and the third-country rule. The other part of the problem, that exists both across and within SACU countries, is the relatively weak integration across modes. In particular, access to rail services remains highly restricted outside of bulk goods and the use of intermodal solutions to facilitate the movement of goods is underdeveloped. Both of these factors have significant implications for competitiveness in the context of large distances within SACU, in particular for Botswana and Namibia.
- *Promotion of clusters*: Lack of scale in BLNS input markets raises the importance of taking an active approach to promote agglomeration of producers and, more importantly, input providers. This will obviously have implications on where, within BLNS, value chain related activities are likely to be based.
- *The services agenda – promoting open trade in services and open movement of people*: Movement of people within SACU will be critical to take advantage of the opportunities of RVCs. But this is perhaps less important in terms of unskilled labor and more important in terms of skilled and semi-skilled labor, particularly in technical and services areas. Here, substantial restrictions remain within the region, under the aim of promotion 'localization' of skilled jobs. From a tourism perspective, lack of harmonization of regional visa rules continues to restrict growth of regional tourism value chains.
- *Regional competition policy*: Within the context of regional industrial policy, a SACU-wide approach to competition regulation may have merit in addressing some of the barriers market dominance (actual and perceived) that restrain RVC development.