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REGIONAL WOOL VALUE CHAIN

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CONTENTS

ABBREVIATIONS

DAFF	Department of Agriculture, Forestry and Fisheries
DALRRD	Department of Agriculture, Land Reform and Rural Development*
DRDLR	Department of Rural Development and Land Reclamation
EU	European Union
NWGA	National Wool Growers Association (South Africa)
NWMGA	National Wool and Mohair Growers Association (Lesotho)
IWTO	International Wool and Textile Organisation
NDP	National Development Plan
OVK	Oos-Vrystaat Kaap Bedryf Beperk
SACTWU	Southern African Clothing and Textile Workers Union
UK	United Kingdom
US	United States

* The Department of Agriculture, Land Reform and Rural Development (DALRRD) was established in June 2019, by the merger of the Department of Agriculture, Forestry and Fisheries (DAFF) and the Department of Rural Development and Land Reform (DRDLR)

1. INTRODUCTION

Wool is a natural fibre that has made its mark in high-end fashion in the developed world, with high prices compared to other fibres. Wool sheep farming is an important contributor to people's livelihoods. Rural people and previously disadvantaged groups in countries that produce wool have benefitted directly from wool as a commodity, more so in Southern Africa where poverty and inequality are high, and where a greater proportion of households rely on agriculture for subsistence and employment but are unable to raise capital to invest in income-earning activities. Wool production has a long history as an income-earner for families in commercial, emerging and communal farming in South Africa and Lesotho. The Lesotho and the South African Wool industries provide high-quality, environmentally-sound wool which meets the needs of the clothing and textile industries. However, wool produced in both countries is exported in its raw form, making these countries dependent on raw materials, as is the trend with other agricultural products in Africa. The high-export intensity has, however, not achieved the much needed local industrialisation through value addition to create jobs. They have limited capacity to produce finished clothing and textile products for international niche markets.

These countries need to move up the value chain and maximise the opportunities that arise at different stages of the wool value chain to create jobs and improve the livelihoods of their people. Some of the opportunities involve changing the supply chain systems to balance the gains derived from the production of wool in both countries. Lesotho did review the wool and mohair regulations in 2018 and 2019 to allow for production, marketing and export from the country. This has directly impacted the supply chain established between Lesotho and South Africa for more than five decades.

The wool industry has, overall, been contributing positively to the agricultural trade balance. However, with time, challenges in the demand for wool seem to pose a serious threat to increasing exports for South Africa and Lesotho.

A number of features characterise the wool industry and market: Wool consumption as a percentage of total fibre consumption is small and decreasing; the consumption of wool products is mainly concentrated within developing countries; the price of wool is high compared to other fibres; and the image of wool products is up-market and high quality. In addition, wool is treated by textile and consumer markets as a fibre that is associated with luxury and naturalness. This makes wool products heavily dependent on fashion trends, as well as on consumer retail spending in the developed world (National Department of Agriculture, 2001).

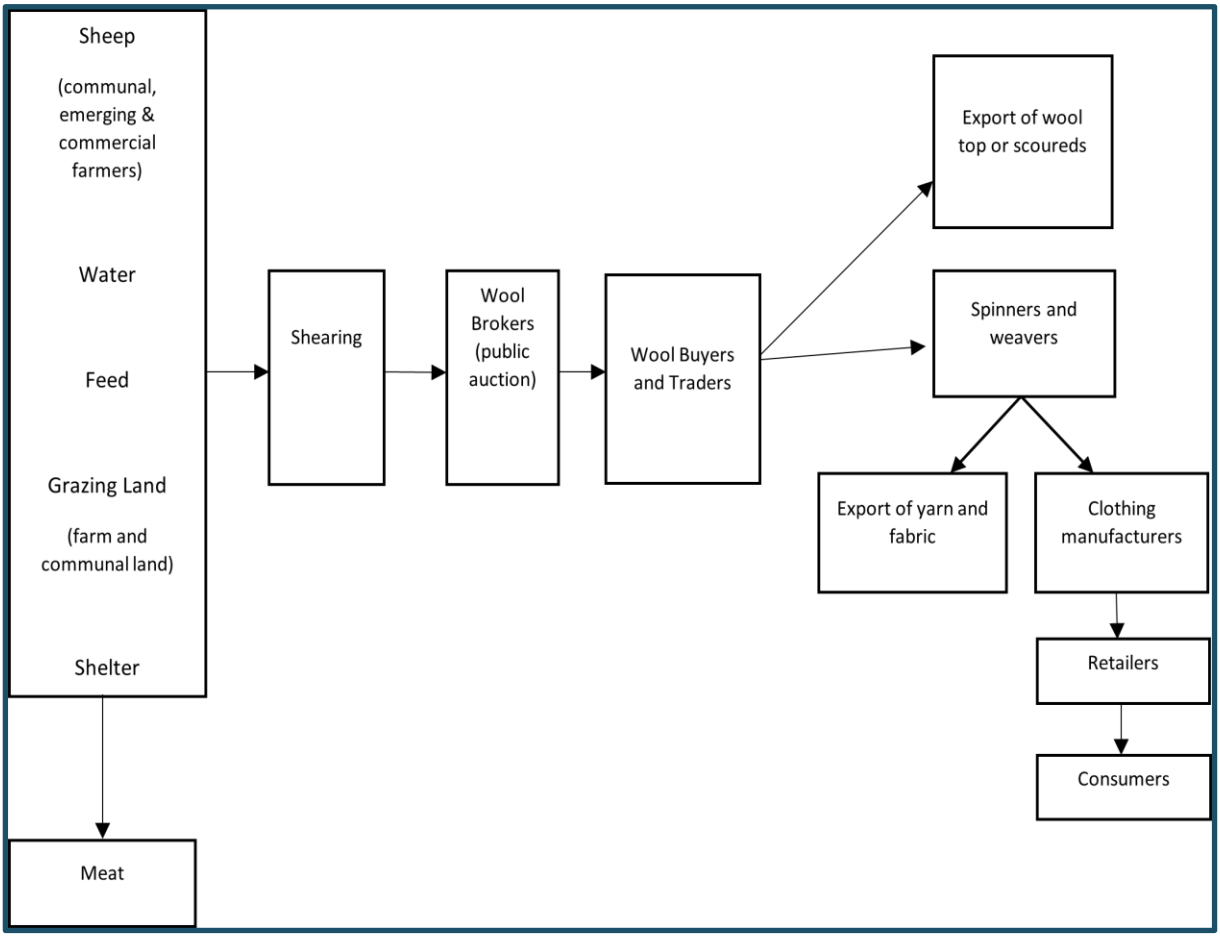
This paper looks at the potential increase in regional gains, particularly in Lesotho and South Africa, through the wool value chain, with the aim of increasing regional productivity and the distribution of wealth through wool production. It also looks into the constraints that domestic, regional and international demand pose for the wool industry in both countries. However, it finds that the value chain seems to be collapsing between the two countries and that the wool industry in both countries is facing a downward trajectory. Last, it makes recommendations on possible priorities for the sector, given the existing and emerging challenges within the wool industry.

The paper is structured as follows: Section 2 looks at the scope of the wool value chain. Section 3 analyses trends in socioeconomic and trade outcomes for by the wool industry. Section 4 investigates the constraints along the wool-to-textile value chain between Lesotho and South Africa. In addition, Section 5 assesses any potential the opportunities for moving up the value chain. Section 6 discusses the policy levers in both countries and their effectiveness in the wool value chain. Conclusions and proposals are drawn in Section 7.

2. THE SCOPE OF THE WOOL VALUE CHAIN

Figure 1 shows the wool value chain from production to the end-user in Southern Africa.

Figure 1: The wool industry value chain



Source: Author, adapted from DAFF, 2011.

2.1 Inputs of wool production

In South Africa, at the production stage, the players in the wool industry are commercial, emerging and communal wool farmers. The industry is historically concentrated since colonial times by large-scale white commercial farmers and black farmers participating as emerging and on a communal scale. It is estimated that there are 6 000 commercial and about 4 000 communal wool producers in South Africa (Ethical Trade Norway, 2020). Marketing of wool starts at farm level where the inputs of production are the sheep; forage, grazing land – right size and productivity; shelter – adequate to house sheep for different purposes and for the storage of equipment; water and equipment – proper fencing, sorting pens, lambing pens and other equipment for tail docking, castrating, ear tagging and possibly for shearing (Ferreira, 2018). This is the case at the commercial wool farming level and also the emerging farm level to some extent. Many activities are carried out at farm level to enhance the quality of wool produced. These range from ensuring adequate water supply; monitoring the quality of pastures; feeding supplementary nutrients; providing proper vaccinations; to providing shelter for pregnant ewes, lambs or freshly shorn sheep in cold weather. Sheep produce wool of different qualities depending on the farmers' main purpose of production, whether it is for wool or meat. The quality of feed leads to the health of the sheep and the quality of wool. The genetic quality of sheep also contributes to the quality and price of wool, hence, as discussed in the following section, the production of Merino sheep in large quantities, which provide better incomes for farmers.

2.1.1 Commercial farmers

Large-scale commercial farmers are established and own their own pieces of land, with flocks of one thousand to over two thousand sheep (De Lange et al, 2014). Common obstacles for increased production of wool for commercial farmers include predation, stock theft, and contamination of wool. According to Ethical Trade Norway (2020:21), "one could summarise commercial farming in South Africa as a 'capital intensive, high risk and low return' enterprise".

2.1.2 Emerging farmers

Emerging farmers are the farmers that lease the former white-owned commercial farms bought by government. They produce 13% of the total wool production in South Africa. One of the major challenges for emerging farmers is that this kind of arrangement restricts the farmers' investment in the farm as they cannot use the land as collateral for development capital. This discourages long-term maximisation of the benefits from the land, which often come at the expense of the soil and poor quality of the farm. In addition, they face the same challenges as the commercial farmers that cut across stock theft, predation and contamination of wool.

2.1.3 Communal farmers

Farmers in communal areas do not own the area on which they farm, but share the same piece of land (pastures/veld). In the Eastern Cape, the majority of small-scale farmers are more concentrated in the former Transkei and Ciskei areas. Their herds average between 20 and 200 sheep. The quality of wool they produce depends on the quality of grazing land. In 2016, an additional 3 000ha dry land was required for the population of small scale-farmers to be successful (AgriSETA, 2018). All farmers benefit from the breeding rate of their sheep. The more the sheep are able to multiply, the more the wool that has to be shorn, translating into more income earned. In 2016, it was estimated that 3.5 million wool sheep were owned by 25 000 small-scale farmers and 150 000 family members. These communal farmers produced about 13% of South Africa's clip, although it was not generally of a good quality (AgriSETA, 2018). Furthermore, farmers need to acquire good management skills for production and marketing of their sheep.

All farmers in Lesotho are small-scale and communal with the number of sheep ranging from two to 500 and very few with up to 1 000. There are farmers in every district but the most prominent ones are in the mountain districts of Mokhotlong, Qacha's Nek, Thaba-Tseka and Quthing. They depend on the quality of the grazing land for feeding of their sheep.

The Lesotho National Wool and Mohair Growers Association (NWMGA) is the governing body, looking after the interests of the farmers, while the Ministry of Small Business and Marketing, and the Ministry of Agriculture and Food Security set the agricultural marketing policies. The NWMGA has about 40 000 members.

Communal farmers face a number of wool production challenges:

- Insufficient shearing and wool sorting equipment and inadequate skills in sorting, classing, packing, the marketing channel opportunities for wool.
- Limited veld and herd management – the communal nature of their wool production makes it difficult for communal farmers to implement proper breeding techniques and to access the good breeding stock, which negatively impact the quality of their stock.
- Large-scale contamination of wool, as it is difficult to keep wool sheep from other animals. This leads to bias by wool buyers against wool produced by communal farmers, and it is usually poorly classed and packed.
- Insufficient quantities of production: one communal farmer is unable to produce sufficient wool to fill one bale of similar quality wool.

- Limited co-operation between communal farmers to market more quantity together, improve their market skills and exchange knowledge.
- High transport costs due to inadequate transport infrastructure.
- Land: competition for land is a challenge as a result of the increase in food consumption.
- Climatic conditions: dry seasons reduce the number of sheep shorn in aggregate and the average wool cut per head (Dylewski, 2019).
- Predation and theft: these are major challenges for the wool and mohair industries. According to AgriSETA, "it was found that in 2016 about R1.4 billion was lost due to predation. While for livestock theft it exceeds R750 million per annum, for both small and large stock. This figure was expected to be much higher as only about 30% of theft was officially reported." (AgriSETA, 2018).

2.2 Marketing of wool

Shearing: The shearing season takes place from August to June every year. The commercial farmers shear the sheep at their own farms. They invest in proper loading facilities and have proper shearing and handling sheds. They hire teams of shearers themselves. For some emerging farmers and communal farmers, wool is shorn by shearers in shearing sheds. After shearing on the farm, wool is classed according to length, strength and texture and baled. The bales are then transported, at the farmers' cost, by brokers to the auction sale in Port Elizabeth. Commercial farmers have their individual producer numbers, while farmers that use the communal sheds, keep records of their contributions to particular bales in order to obtain payment.

The government provides shearing sheds (marketing infrastructure) for communal farmers. However, not all communities have close access to the sheds. It is also not clear how many shearing sheds there are in South Africa and where they are placed within the communities, but different studies point to more shearing sheds provided to the communities in the Eastern Cape province. This is in line with the fact that the Eastern Cape Province has the biggest sheep population, accounting for more than 30% of the total sheep in the country. The shearing shed is where the government extension workers meet with different communal farmers to provide them with the necessary skills for wool production and marketing. For commercial farmers, the extension workers and labour inspectors visit individual farms to provide necessary skills and to monitor farm management. From the auction, more than 75% of greasy wool is exported and the remainder is processed and consumed in the country, with insignificant amount of value add.

The same applies for Lesotho. Each sheep is shorn once a year between August and December and this has extended up to February in recent years. The sheep are shorn at the shearing sheds, where they are classed, recorded and packaged for the market. The shearing sheds are provided by the government, with the help of the donor community. In the past, the government used to provide both infrastructure and staff and the NWMGA managed the shearing sheds. Recently, as the staff retire, the NWMGA has taken over the provision of staff and payment of their salaries. The permanent staff complement in a shearing shed consists of a Supervisor, a Classer and a Recorder. There are more than 135 shearing sheds in the country, spread across the 10 districts of the country. It is not clear how many privately-owned shearing sheds there are in the country.

The wool shorn in the government sheds is classed and packaged into bales and transported to Port Elizabeth in South Africa to a Broker (BKB) that will auction it in the international market for Lesotho. In the country, before sending it to South Africa, a Veterinarian examines the wool for diseases and provides a permit for wool to be taken to the market. Wool shorn in private sheds is transported privately and auctioned independently.

South Africa and Lesotho use the same South Africa-based Brokers – BKB and Oos-Vrystaat Kaap Bedryf Beperk (OVK) – for auction and sale of wool to international bidders, BKB being the most

dominant, both in South Africa and in Lesotho. During exportation, at the port, the veterinarian from Lesotho re-examines the wool and provides a certificate of origin and non-contamination. The farmers are paid based on the quantity and quality of their produce, the price of wool in that particular sale, net after the logistics and brokerage fees.

Wool processed and consumed in the country is insignificant. Gubb & Inggs appears to be the only wool processor in South Africa.

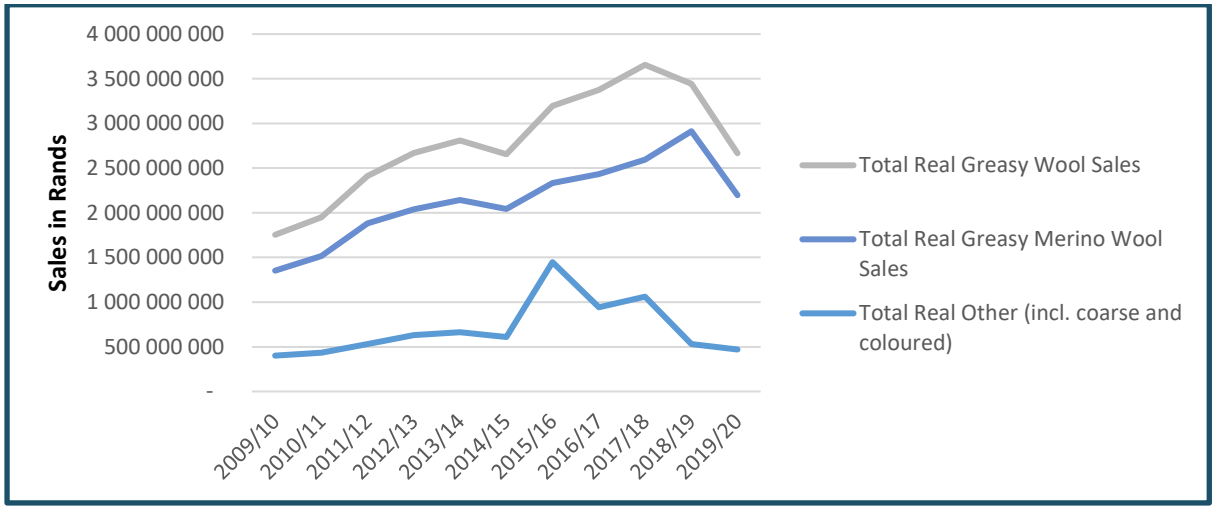
Wool shorn in Lesotho was historically exported to South Africa where it was marketed and exported to the international market. However, the regulatory review by the Government of Lesotho in 2018-changed that so that wool can be marketed and exported directly from the country to international markets. The 2019 regulation affords the farmers an option to either export their wool from the local marketing channels or through the historic South African value chain. The newly implemented Lesotho marketing system has a number of challenges as it still relies on South Africa for testing of the wool, and the logistics for this are not fully grounded. It lacks the confidence of farmers as it affected the timing and level of earnings negatively at the start.

Similar to 1973 when the Livestock Marketing Corporation and the Lesotho Mohair Industries were established, the Lesotho Wool Centre was established in 2018 following the Agriculture Marketing (Wool and Mohair Licensing) (Amendment) Regulations 2018 to buy wool and mohair through government-established shearing sheds in direct competition with private buyers. The Lesotho Wool Centre sought to bypass the South African marketing system and to sell directly to international buyers. So far, the venture has not been successful owing to under-capitalisation and poor management. Consequently, large quantities of wool and mohair remained unpurchased and the prices paid to farmers were lower than those offered on the South African markets. As a result, farmers reportedly had to sell their flocks in pursuit of income generation.

The NWMGA complained of the lack of transparency and competitiveness in the new system. This led to a protest by farmers against the new regulations. The regulations were amended in 2019 – The Agricultural Marketing (Wool and Mohair Licensing) (Amendment) Regulations (No. 97 of 2019) – to allow farmers a choice on whether to market their wool through the local marketing system or through the historic South African marketing platform.

Farmers without access to the shearing sheds, shear their own wool and sell it below market price in the informal market. The hawkers that buy wool informally take it to the formal marketing systems where they make market-related profits for themselves.

Figure 2: South Africa's total greasy wool sales, 2009/10 – 2019/20

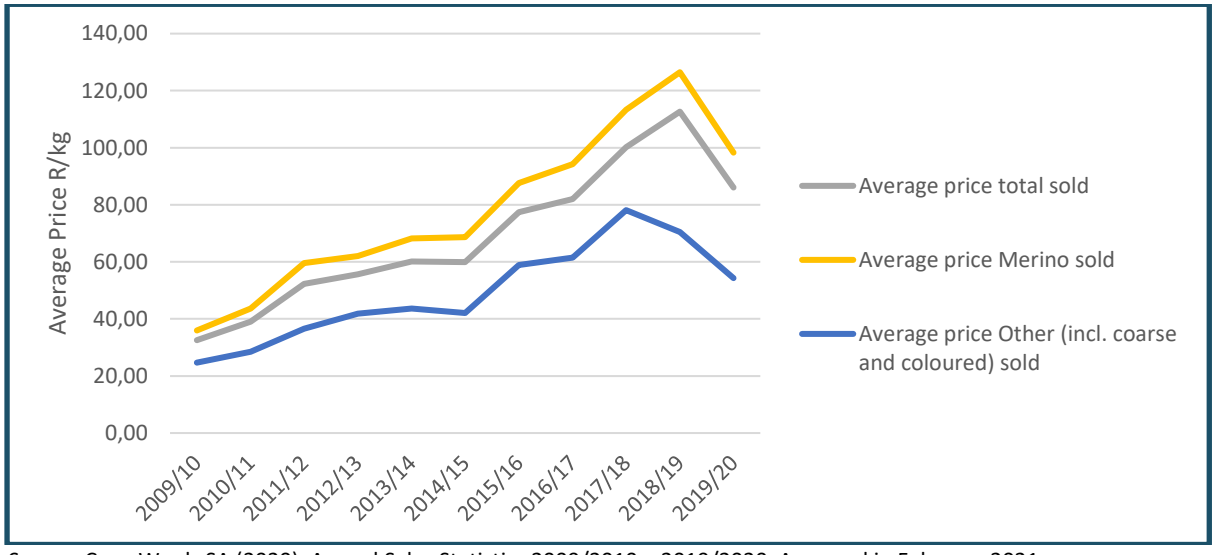


Source: Cape Wools SA (2020). Annual Sales Statistics Reports 2009/2010 – 2019/2020.

Sales: Figure 2 shows South Africa's real sales of greasy wool from the 2009/10 to the 2019/20 season, rebased to (deflated by) the 2018 prices. The total sales of Merino wool increased by 154% from R1 579 020 485 to R4 004 924 586 in a decade between 2008 and 2018. Merino wool is the driving force of South Africa's wool sales and has established South Africa's presence in the apparel sector with 84% share of the country's total wool sales in 2018 real terms. The total sales of the Merino wool have been rising from 2009/10 until the decline in the 2014/15 season due to the slightly stronger rand and the decline in demand in the same year. The decline in 2018/19 was due to the decrease in prices and sales of coarse and coloured wool types as depicted in Figure 3.

Similarly, the price of Merino wool has been rising for the first five years under review and dropped in 2014/15 due to a slightly stronger rand and weaker demand in the same year. Further, the prices and sales of wool took a knock in the 2019/20 season due the outbreak of foot-and-mouth disease that occurred in the Limpopo province between February and May, 2019 and led to the ban of South Africa's wool in China during the same period.

Figure 3: South Africa's total greasy wool sales, 2009/10 – 2019/20



Source: Cape Wools SA (2020). Annual Sales Statistics 2009/2010 – 2019/2020. Accessed in February 2021.

3. OUTCOMES

3.1. Regulation

In terms of governance, the Wool Forum is the regulatory and the official policy-making body in the in the South African wool industry. The wool sector is well organized into industry association, the National Wool Growers Association (NWGA), that engages with other bodies and export markets on behalf of its members. All farmers are members of the NWGA and more than 50% of the membership consists of black communal farmers who are represented at every level of decision making. Other role players are the Department of Agriculture, Forestry and Fisheries (DAFF), which assists with predator control programmes and, for communal farmer development, the Department of Rural Development and Land Reclamation (DRDLR), which supports stock improvement by supplying quality breeding rams and establishing rural shearing sheds. Cape Wools SA is another organisation registered under NWGA. It looks after the sustainability and profitability of the wool industry and is the generic name for all South African wool). The industry also consists of at least nine wool buyers; one processing company – Gubb & Inggs; brokers – BKB and OVK; independent brokers – Quantro Wools, and Saunders Bruce & Lapersonne; traders – Blue Crane; and trade unions – The Hotellica Union, and the Southern African Clothing and Textile Workers Union (SACTWU) (Ethical Trade Norway).

There is no wool manufacturing in South Africa. Wool goes as far as processing by Gubb & Inggs.

In Lesotho, the NWMGA is responsible for the development of the wool and mohair farmers. Agricultural Marketing, which was the within the Ministry of Small Business, Cooperatives and Marketing, has been transferred to the Ministry of Agriculture and Food Security. This Ministry is now responsible for policy development as well as supporting the agricultural extension services. The Ministry of Forestry and Land Reclamation provides education on range management to the farmers.

3.2 Production

3.2.1 Wool production in South Africa

Wool is produced in all provinces in South Africa. The Eastern Cape is the largest producer of wool, followed by the Free State and the Western Cape. Together they command 66% of the country's production. The production of wool in South Africa declined by 18% from 55 398 796kg to 45 580 242kg from 1994 to 2019. In November 2019, the number of sheep in South Africa was about 21.9 million, a decline of 24% from 29 million in November 1996 (DALRRD, n.d.).

In the early 1980s, South Africa produced over 100 million kg of wool annually, and more recently in the 2019/20 season, this dropped to less than 50% with around 45 million kg produced. The decline is attributed to wool growers shifting from wool to meat production during the periods when the price of wool was low, the conversion of capacity to game farming in the Eastern Cape (Letebele, 2020), and substitution of wool by other fibres such as cotton and synthetic fibres as elaborated in Section 4.2 of this paper. South Africa contributes 2% of the world's wool production, the bulk of which is high-quality fibre that feeds into niche markets.

Lesotho's wool production averaged 10% of South Africa's wool production over the eight years from 2010/11 to 2017/18. Its highest contribution as a percentage of South Africa's total production was 13% in 2017/18. The highest production of wool from Lesotho that was marketed through South Africa was in 2016 at 6.5 million kilograms. Even though its production is globally insignificant, the earnings generated from wool exports contribute significantly to the economy and livelihoods of the wool farming households, thus making wool an important agricultural product and commodity in the country.

3.2.2 Global wool production

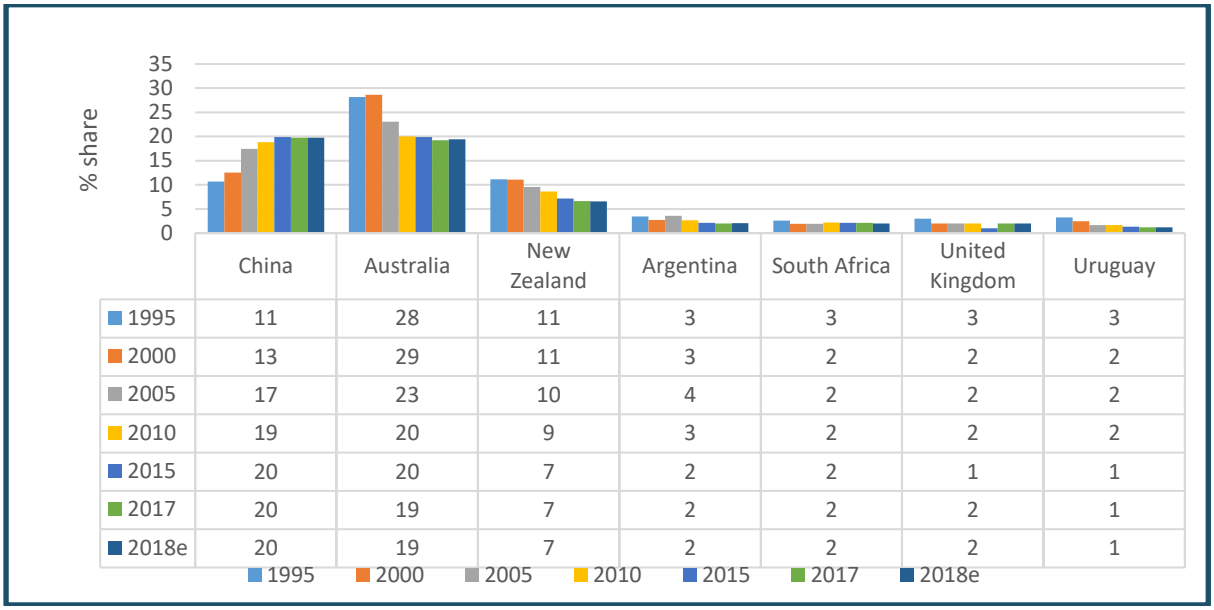
From a global perspective, the five countries with the highest sheep population[1] are China, Australia, India, Sudan and Nigeria with total shares of 13.9%, 6.2%, 5.4%, 5% and 3.6% respectively of 2018 estimates. South Africa features fourteenth globally accounting for 2% of the estimated 2018 sheep population. The sheep population has declined over time in most countries except for China whose sheep population has increased by almost 40% in 23 years from 117.4 million in 1995 to the estimated 164.2 million sheep in 2018. In contrast, the number of sheep in Australia declined by 39.3% from 120.8 million in 1995 to an estimated 73.3 million sheep in 2018. Despite decreases in the sheep population in most countries, the world sheep population in aggregate increased from 1 067.6 million to around 1 178.9 million from 1995 to 2018, indicating an increase of 10.3%.

The decline in sheep population in major wool producing countries, such as Australia and New Zealand, is attributed to increased competition for land leading to farmers' limited pastures and roughage resources. This has led to farmers shifting to dairy, beef, and cereal farming that average greater returns (Gro Intelligence, 2017). A 51% decline in wool production between 1996 and 2013

[1] The figures include woolled and non-woolled sheep estimated by IWTO, 2019.

correlates with a rise of 260% and 511% in beef and cotton productions respectively in the same period as a result of a shift.

Figure 4: Percentage share of world greasy wool production 1995-2018e



	China	Australia	New Zealand	Argentina	South Africa	United Kingdom	Uruguay
1995	11	28	11	3	3	3	3
2000	13	29	11	3	2	2	2
2005	17	23	10	4	2	2	2
2010	19	20	9	3	2	2	2
2015	20	20	7	2	2	1	1
2017	20	19	7	2	2	2	1
2018e	20	19	7	2	2	2	1

Source: IWTO, 2019. *Note:* "e" is the percentage share of world greasy wool production estimated for 2018.

The world greasy wool production dropped by 17% in 23 years, from 2.5 million tonnes in 1995 to the estimated 2.1 million tonnes in 2018. IWTO estimates show that South Africa is within the Top 5 producers of greasy wool in the world, following China, Australia, New Zealand and Argentina. Figure 4 shows that from 1995 to 2010, Australia was the largest world producer of greasy wool with the global share that started at 28% in 1995 dropping with time until it reached 20% in 2010 and 19% in 2017 and 2018. China started in the second position with a share that has increased from 11% in 1995 to a 20% share in 2015 through to 2018, surpassing Australia's greasy wool production from 2017. New Zealand's share dropped from 11% to 7% in 2018 estimates. The share for Argentina, South Africa, the United Kingdom and Uruguay individually dropped from 3% to 2% from 1995 to 2015 and 2017 through to 2018, while Uruguay maintained a 1% share from 2015 to 2018.

3.2.3. Cost drivers

Related costs for wool growers are mainly inputs, transport and marketing. Input costs involve animal feed, animal health (dipping) and breeding, while marketing also includes shearing costs.

The Input Cost Monitor of 2012 by the National Agricultural Marketing Council showed that animal feed constituted the highest cost factor for wool-sheep producers, with more than 50% of total variable costs allocated to feed every year. Other cost drivers depicted in same study were animal health, transport, marketing and shearing, and costs related to casual labour, packing material and miscellaneous. Generally, according to IWTO (2020, p2), "a farmer's largest cost is the land. The value of agricultural land is directly linked to the availability of water, topography, natural weather patterns in the area and proximity to market". Nevertheless, it is also worth noting that the cost of entry into sheep farming is far less than many other forms of farming, including cattle farming (Ethical Trade Norway, 2020).

Farmers in Lesotho incur the same costs as communal farmers in South Africa – costs of animal health and shearing. However, they incur additional costs of logistics to and marketing in South Africa. The localisation policy was meant to cut these logistics fees and brokerage fees in order to increase the earnings of local farmers; to strengthen the value chains in the wool and mohair industry; to reduce

the dominance of the South African brokers and reliance on South African markets; and to create employment and improve the skills base in the sector as well as grow tax revenues in the country (WAMPP/IFAD, 2020).

The revised regulations afforded the farmers an option to choose the platform on which to send their wool for marketing. During the 2018/19 season, the wool that was sent through the South African marketing system had dropped from 6 369 564kg in 2017 to 108 547kg, which was 0.3% of South Africa's total production, some of which is believed to have been smuggled into South Africa. In 2019/20, following the gazetting of the 2019 Regulations, wool sent to South Africa increased to 2 717 908kg, showing that farmers still prefer to incur the historic costs of exporting wool to South Africa rather than going through the local system. It is not clear whether the local export system is less costly than the South African system for the Basotho farmers as the farmers could not receive their payments on time and, when they did, they received less income than they historically did. Only one buyer was licensed to buy wool and export it internationally, to the dissatisfaction of the farmers. This has created a buying monopoly for this single company.

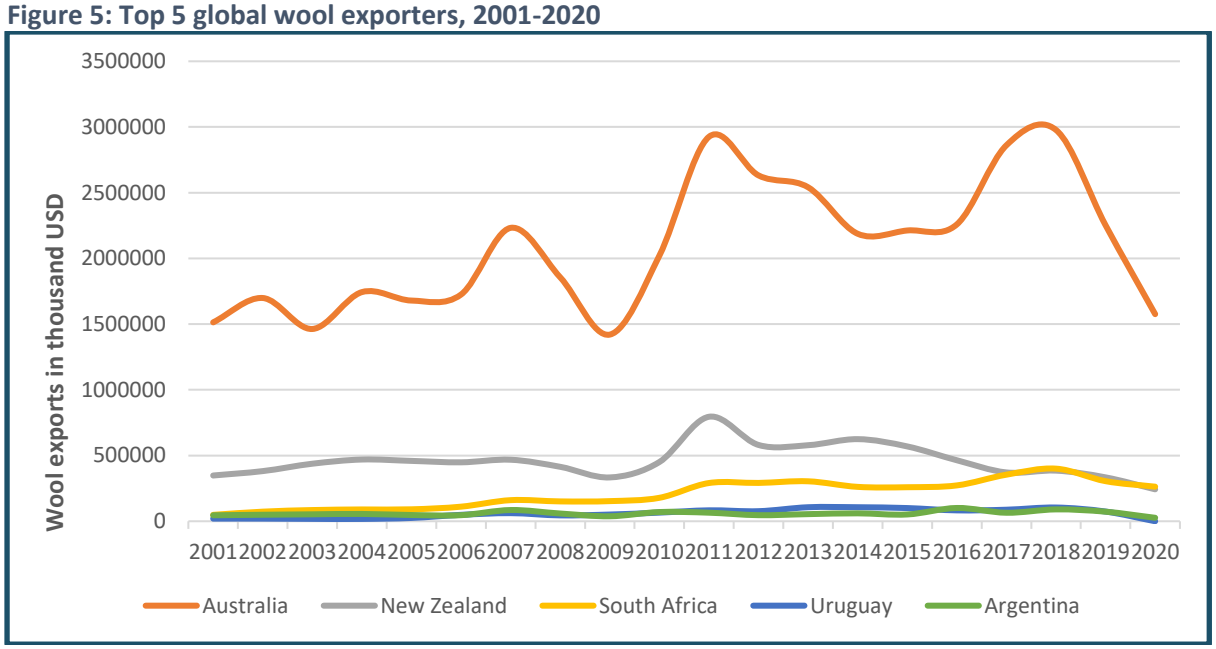
Although a reform was needed of the 44 years old legislation, the new regulation has not proved to be successful owing to a number of factors that include lack of infrastructure and requisite skills for testing, brokering and auctioning. As noted, this was further exacerbated by the fact that the farmers' payments were delayed and below what they were paid in the old regime, and non-payment to some farmers.

3.3 Exports

This section looks at South Africa's wool exports and its performance at global level.

3.3.1 Global wool exporters

Figure 5: Top 5 global wool exporters, 2001-2020



Source: ITC Trade Map, 2020. HS 5101. Accessed in January 2021.

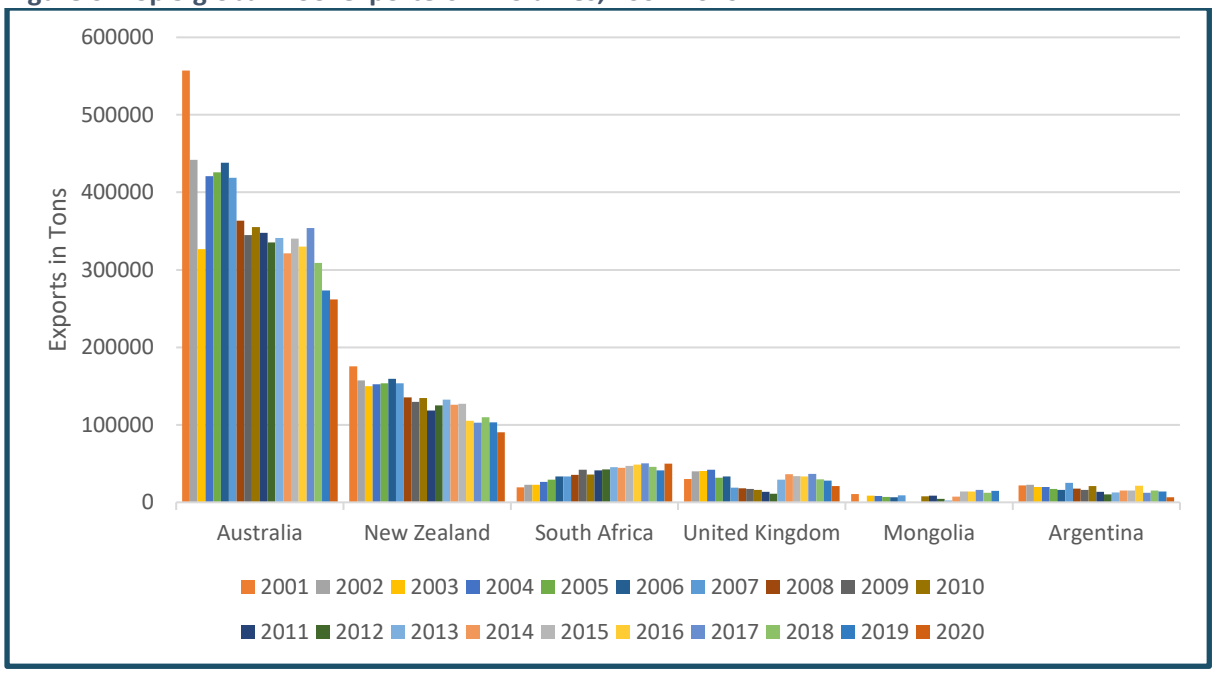
Figure 5 shows that Australia is a leading global wool exporter, with 64% in value terms in 2019, followed by New Zealand and South Africa each with a global share of 9% in the same year. South Africa's global share rose from 2% in 2001 to 9% in 2019 in value terms despite the decline from 2014 to 2016 and the declines in 2018 and 2019. Australia and South Africa are the major Merino producing

and exporting countries globally. Overall, South Africa's income earnings from wool exports have been rising over the years, except in 2014 and 2015 and recently in 2019. The global value of exports, however, has increased by 54% from 2001 to 2019 as opposed to the 100% increase between 2001 and 2018. Other leading producers and exporters of wool globally are Uruguay, United Kingdom and Argentina. 2020 saw a huge drop in exports as a result of the COVID-19 pandemic that restricted movement and disrupted the global supply chains.

3.3.2 Exports in volumes

In volumes, South Africa is the third largest exporter of wool globally following Australia and New Zealand. Figure 6 demonstrates that even though the volumes of exports for Australia and New Zealand were fluctuating in the years between 2001 and 2020, they were generally on the decline, while the quantities of wool exports from South Africa in the same period show an upward trend, although there was a dip in 2010, 2018 and 2019. This implies that the other countries that produce more than South Africa are using the wool for domestic production purposes.

Figure 6: Top 5 global wool exporters in volumes, 2001-2020



Source: ITC Trade Map, 2020. Accessed in January 2021.

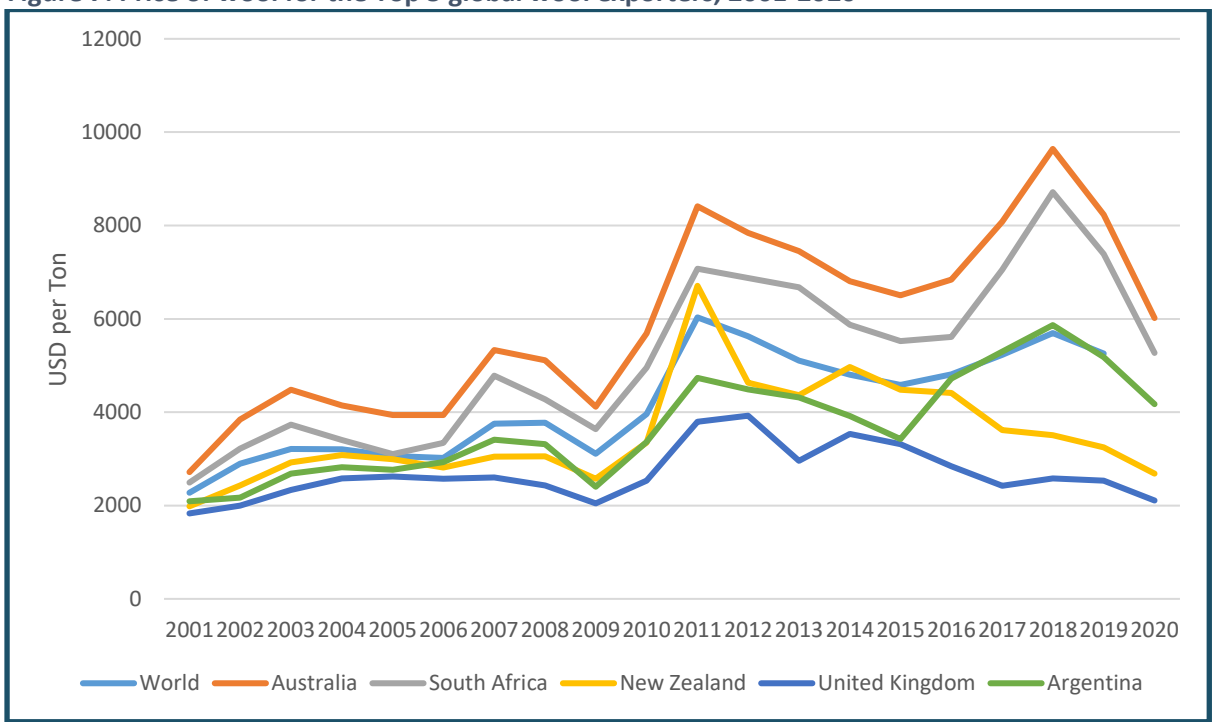
3.3.3 Unit prices of exports

Generally, wool prices fluctuate significantly throughout the auctions, indicating its volatility. The price of wool on a given day is determined by various factors such as the level of the market in Australia; exchange rate fluctuations; quantities offered for sale on auction; the specific demand for different types of wool at different times; the extent and timing of contract commitments by local buyers for delivery to clients; and economic conditions prevailing in wool-consuming countries (National Department of Agriculture (2000). Merino wool, with its fine micron diameter, generally attracts higher prices than the medium and strong wools that are mostly used in carpets and rugs.

Figure 7 shows the exported unit value of wool by the Top 5 exporting countries in the world. It displays a somewhat cyclical trend, with prices rising and falling every two years between 2001 and 2011. The price plummeted from 2012 to 2016 before rising to the all-time high of US$8 715 in 2018 and then dropped again in 2019 and 2020. Given the historic trend, it is anticipated that the prices will recover again in 2021 when economies open up for business, following the lockdowns. The prices of

wool for South Africa dropped by 18% and 40% from the 2018 prices as a result of the outbreaks of foot-and-mouth disease and of the COVID-19 global pandemic in 2019 and 2020, respectively. Australia's wool prices are the highest followed by South Africa's and both are above the world prices. Wool prices in New Zealand have also seen a tremendous decline which was, among others, attributed to China's drop in demand for heavy wool fabrics, increasing its preference for fine wool products. The global prices of wool generally dropped significantly in 2019 and 2020 owing to the China-US trade war and the COVID-19 pandemic.

Figure 7: Price of wool for the Top 5 global wool exporters, 2001-2020

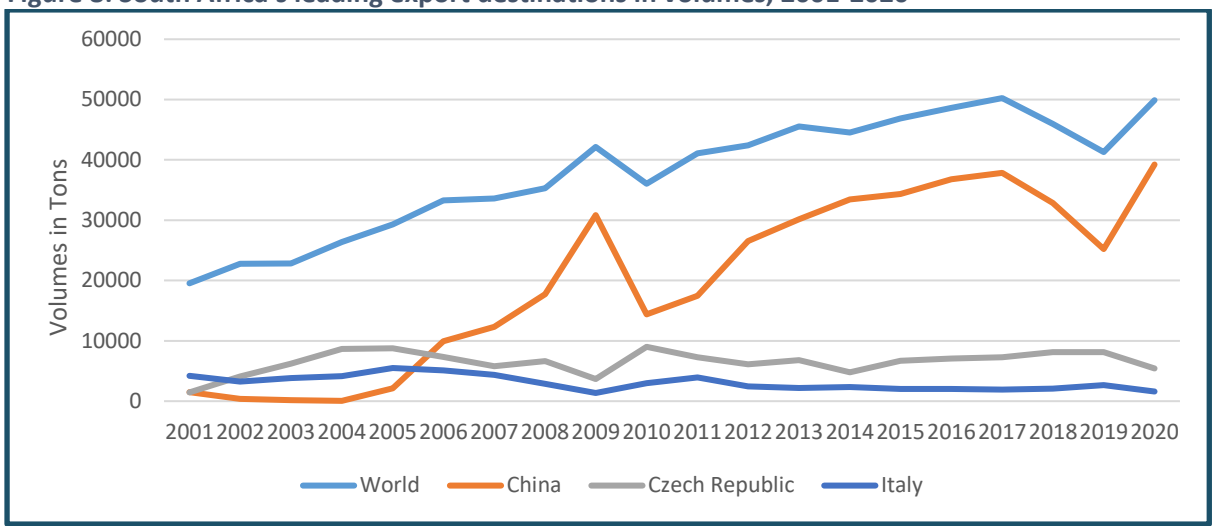


Source: ITC Trade Map, 2020. Accessed in February 2021.

3.3.4 South Africa's export destinations

In 2018, wool accounted for 4% of the value of South Africa's agricultural exports, at R6.4 billion (Sihlobo, 2019). Wool was among the top nine agricultural exports from South Africa in 2020. South Africa exports more than 75% of its wool in greasy form, meaning it does not contribute to employment creation through industrialisation. However, the South African government has localisation policies that are designed to shift commodity exports into local beneficiation, which could encourage greater levels of local production, industrialisation, and Regional Value Chains. Figure 8 shows South Africa's three leading export destinations in quantities. China remains the dominant importing country of South Africa's greasy wool since 2006, with a share of 79% of South Africa's total wool exports in 2020. It is followed by the Czech Republic and Italy with 11% and 3% respectively. The income earnings from the three countries constituted 76%, 12% and 4% respectively in 2020. South Africa's exports to China continued to increase in 2020 despite the sharp decline in exports in 2019 as a result of the foot-and-mouth disease and the consequential ban of South Africa's wool by China.

Figure 8: South Africa's leading export destinations in volumes, 2001-2020



Source: ITC Trade Map, 2020. Extracted in February 2021.

In an attempt to move up the value chain, Cape Wools SA has developed a business proposal for a national wool tops project to the value of €5 million in investment or soft loans. The project is seeking investment from the European Union (EU) in processing of wool to wool tops through the bilateral trade agreement, EU-SA Partners for Growth Programme (EU Chamber, n.d.). It is anticipated that South Africa will gain access to the EU market for its wool tops as well as skills, technology and equipment from the EU. The success of this project will contribute to job creation in South Africa.

According to Letebele (2020, p5), "the impact of early processing within this sub-sector would benefit multiple downstream and upstream enterprises. Early processing will bring the farmers closer to buyers and processors, improve their understanding of the market and ultimately enhance [*sic*] the profitability of the industry". Moreover, the success of the project will increase the demand for greasy wool locally, and could provide a market opportunity for Lesotho's greasy wool in South Africa depending on the price competitiveness with the international market. However, the assessment indicates that the economies of scale for further processing in the form of spinning mills are not viable at this stage for South Africa.

3.4 Employment

The level of employment in the wool industry in both South Africa and Lesotho is not clear. The national statistics in both countries do not record employment in the industry as most workers in the sector are informal wage earners. However, in South Africa the NWGA estimated that 35 000 farm workers and 4 000 sheep shearers and handlers are employed in the South African wool industry (NWGA, n.d.). The bulk of primary sector employment is seasonal under contractors that run the shearing sheds. A look at employment that appears at each stage of the value chain in South Africa reveals the following:

Farm level: Commercial farmers employ the farm workers for production of feed and management of sheep. Farm workers in South Africa are regulated by the labour laws and have a minimum wage set by government at R21.26 per hour. Payment of the farm workers is based on experience, length of service and skills. However, farm workers are generally low-skilled and do not have the capacity to move between jobs. Most are family members who grew up on the same farms at which they reside.

Shearing level: Shearers in the wool industry do not have the same working conditions across the industry. They also differ from on-farm resident workers' conditions. In effect, they are mostly migrant workers moving from farm to farm. The demand for shearers is high and many farmers struggle to

get good shearing teams. BKB employs both shearers both South Africa and Lesotho. It has an aggregate of over 1 400 shearers with shearers from Lesotho constituting above 70% and the rest from Eastern Cape. BKB and the Department of Labour in Lesotho have an agreement that enables BKB to source shearers from Lesotho through the agents in Mohale's Hoek, Quthing and some highlands areas (Ethical Trade Norway, 2020). BKB takes care of its shearers with payment and accommodation while they are awaiting deployment to the farms. While on the farms, the shearers are provided with accommodation by the commercial and emerging farmers themselves. As the majority of shearers were from Lesotho prior to the 2020 lockdown, this created a challenge during the lockdown as the shearers were stuck in Lesotho following the lockdown regulations (Ncokazi, 2020).

Up until 2019, shearers employed by BKB were paid per animal shorn. For 2018/2019 this was at R4.72 per animal. This recently changed to shearers earning a minimum wage of R283 a day and an additional bonus incentive of R4.72 for every additional animal shorn over the minimum wage level of 48 animals a day. Skilled shearers can shear more than 90 sheep a day if the flow of animals to them is smooth. Really skilled shearers can manage more than 120 sheep a day (Ethical Trade Norway, 2020). BKB also provides training for the shearers. Independent shearing groups and shearing of communal flocks operate less formally and generally pay per animal shorn.

In terms of being organised into a union, the interests of the more than 4 000 shearers are represented by the Hotellica Union. However, not all shearers are members of the union at any given point. Shearers from both Lesotho and South Africa are members and enjoy the same privileges and treatment.

The transporters: Employment in transportation is such that the larger commercial farmers hire a more formal transport service provider, to transport shorn wool for auction and sale in Port Elizabeth. The driver and workers are covered by the labour law. Drivers and workers are hired under different conditions, depending on the ownership of the transport. Their remuneration also differs on whether they are on a full-time or a short-term contract basis and some can be covered by legislation and the collective bargaining in the transport sector. The situation is less formal for emerging farmers and communal farmers. From the shearing sheds, communal farmers obtain transport organised by BKB that they pay for, or organise pooled transport on their own and negotiate the terms of payment. The level of employment at transportation level is not clear.

Processing: Permanent jobs are located in processing though insignificant, with Gubb & Inggs employing around 55 workers. Reported processing over-capacity has led to introducing short time by the processing company. This means that working time and remuneration have been reduced. This poses a threat to the prevailing jobs.

In Lesotho, employment brought about by wool is small. At the production level, it is through self-employment or herders that are hired to tend the sheep. They are normally paid in-kind, in the form of a flock of sheep per year. They benefit from shearing and selling of their sheep for meat (the NWMGA estimates that 30% of farmers' income from a sheep comes from wool, and 70% comes from selling of the sheep for meat). This creates a cycle of employment and the creation of wealth, though at subsistence levels, as the same herders end up becoming sheep owners themselves and hiring other people to herd to their flock after some years of service. This is seen as instrumental in contributing to poverty reduction and food security. However, the introduction of the new regulation has reportedly affected the employment and livelihoods of farmers, herders, shearers, transport workers and others that benefited indirectly from the wool industry, as people started selling their flocks in the absence of income from their sheep.

4. CONSTRAINTS – TRENDS IN DEMAND

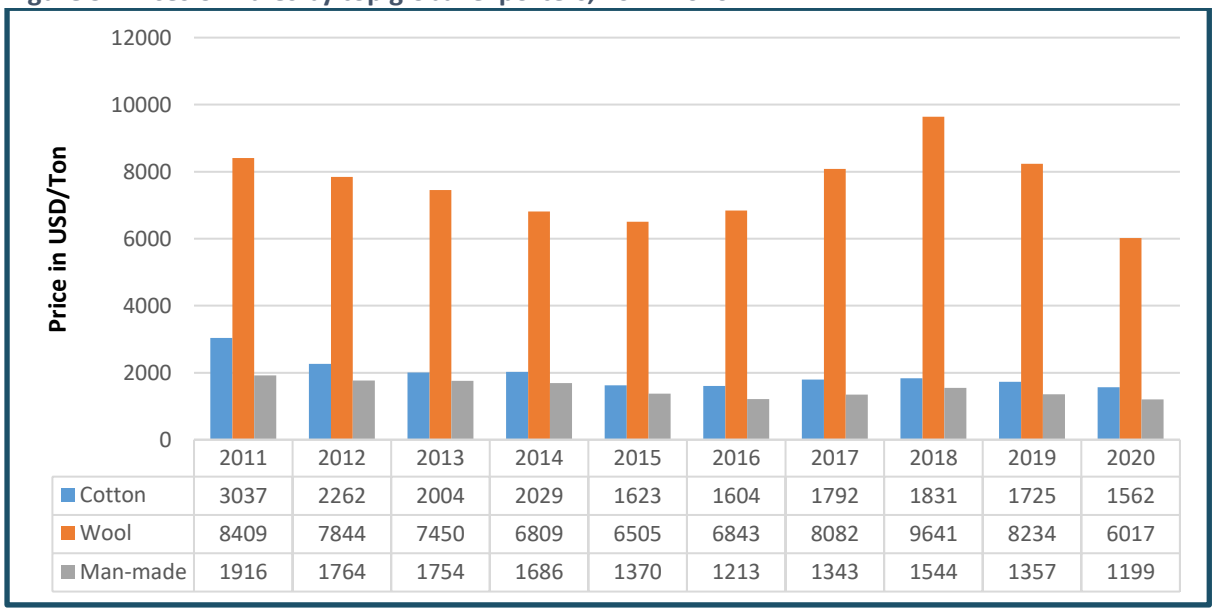
4.1 Imports

Regionally, South Africa's major imports of wool come from Lesotho and an insignificant amount of coarse and coloured wool from Namibia. Even though greasy wool from Lesotho is auctioned in South Africa, it is still presented as Lesotho wool in the international markets. In the past, raw wool from Lesotho and Namibia was counted as part of South African wool production because it was marketed through the South African wool marketing system. As mentioned, in 2018, South Africa received only 108 547kg of wool from Lesotho, a reduction from 6 369 564kg in 2017, representing 0.3% of the total production in South Africa and 0.03% from Namibia with 2 516kg. South Africa mainly imports finished products in the form of apparel and textiles from other countries such as China, India, the United States (US) and United Kingdom (UK). This means that industrialisation and job creation in the wool industry happens in other countries not in the region.

4.2 Consumption

Wool is highly regarded as a luxury natural fibre. Its consumption directly compares with cellulosics, cotton and synthetic staple fibres in end-use market (IWTO, 2019). Moreover, the price of wool is high compared with man-made staple fibres and cotton. Wool was over five times the price of cotton and over six times the price of synthetic fibres between 2017 and 2019, and was four times and five times higher than the prices of cotton and synthetic fibres respectively in 2020, demonstrated in Figure 9. As a result, it is not significantly competitive with these fibres. Wool's share of global textile fibre has diminished from around 8.1% in the past two decades to the current 1.1%. The decline in the production of natural fibres is attributed to the shift in global demand for different fibres and the increase in the rate of substitution among competing fibres. This substitution is due to improved performance and affordability of synthetic fibres through advancement in technology. Additional characteristics for synthetic fibres and cotton that have made them more attractive are that they blend well and are better suited to dyes and mechanical handling. This has negatively impacted on the demand and production of wool. An example is a decrease in the demand for Australia's medium micron wool exports and wool prices (Dylewski, 2019).

Figure 9: Prices of fibres by top global exporters, 2011-2020



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cotton	3037	2262	2004	2029	1623	1604	1792	1831	1725	1562
Wool	8409	7844	7450	6809	6505	6843	8082	9641	8234	6017
Man-made	1916	1764	1754	1686	1370	1213	1343	1544	1357	1199

Source: ICT Trade Map, 2020. Accessed in March 2021.

Moreover, as South Africa exports wool in its raw form, it is globally insignificant in the trade for intermediate wool products such as wool fabric and wool top. In addition, it is equally insignificant in the trade for finished products. Floor coverings which use coarse wool are the highest traded wool products followed by menswear, knitwear, womenswear and, lastly, blankets (IWTO, 2019). South Africa provides raw material largely for menswear and womenswear, which are mostly regarded as luxury clothes in terms of characteristics and they attract high prices from inputs to finished products. This means that an increase in demand for such products will increase the demand for South African and Lesotho wool.

Furthermore, other studies, such as the Gro Intelligence report, projected the consumption for textile fibre to increase, with increases in income and population in the years leading to 2020. The consumption for wool was expected to remain the same.

Even though the price of wool is expected to rise in the medium term following the global disruptions caused by the COVID-19 pandemic, the consumption of wool against other fibres remains small.

4.3 The environment

The downward pressure on the production and consumption of wool and other natural fibres is likely to be exacerbated by animal welfare and social and environmental concerns. Examples are climate change, land damage, water pollution and concerns posed by people who advocate for the shift to vegan clothing. However, the significance of these pressures is yet to be established.

4.4 The burden of disease

The burden of disease compromises South Africa's access to markets. The outbreak of foot-and-mouth disease in South Africa in February 2019 had a negative impact on the demand for South Africa's wool as China banned wool imported from South Africa. This left South African farmers with future uncertainty about the excess supply of wool accumulated during the ban, valued at R5 billion, that could not be exported anywhere in the world as China is the major export market for South Africa. The wool was eventually exported conditional on specific handling and storage requirements. China imports its wool from Australia and South Africa. The outbreak took place at a time that China had not accumulated excess stockpiles of wool. Consequently, the ban on South Africa meant excess demand for wool in the Chinese market which pushed the Australian wool prices up, benefiting Australia. In addition, the burden of disease in South Africa becomes a burden for Lesotho as well, as it exports its wool through the South African marketing channels. It creates a lengthy certification process for Lesotho's wool to be exported during the ban. However, Lesotho could not equally export as this ban coincided with the implementation of the new regulations.

4.5 External forces

The export nature of South African wool trade is highly susceptible to external forces. Wool is under pressure because of the US-China trade war. In 2018, the US government increased the tariffs on Chinese wool products, making it costly for China to export wool products to the US. This resulted in the Chinese wool manufacturers cutting down on their production and therefore reducing the quantities of raw wool imported from Australia, South Africa and New Zealand. This reduction in demand led to the plummet of wool prices, with a negative impact on exporting countries. It is not clear when the tensions between China and the US will end and if China is set to increase its exports to the US. The implication for South Africa's wool trade is that if China's exports to the US increase, China grows, and it increases its imports from South Africa. The reverse will see China stagnating due to ongoing trade issues with the US and dampening its imports from South Africa. A further knock was experienced in 2020 as a result of the COVID-19 pandemic because of the disruptions in the supply chain during the time when countries around the world were on lockdown.

Despite increasing tensions between China and Australia over the origins of the COVID-19 pandemic, which have resulted in a China-Australia trade war, Australian wool exports to China still stand to benefit. An article by Reuters shows that Australian wool producers are gaining increased access to China through the 2015 China Australia Free Trade Agreement under which China takes a third of all Australia's exports, and grants duty-free treatment to Australian wool up to the quota level for a given year. The 2021 quota increased by 5% from 36 465 tonnes to 38 288 tonnes (Reuters, 2021). This was demonstrated by the continued rise in wool exports from Australia to China between January and April 2021, though there was a decline in February 2021.

These challenges call for South Africa and Lesotho to come up with diversification strategies to reach other markets, but mostly innovative ways to move up the value chain and ramp-up processing locally in line with the recovery and reconstruction policies that strive for localisation and promotion of industrialisation for improved job creation and economic growth. However, diversification of markets is challenging because the other countries that import South African wool, such as the Czech Republic, Italy, Bulgaria, India and Egypt, are not significant enough to make an impact that the strong Chinese market has demonstrated on Southern African wool exports. The Chinese wool industry is well-established globally in value-add and manufacturing. As a mitigating factor, however, it is speculated that China might want to maximise profits by moving its manufacturing plants to other countries that attract less import tariffs into the US. In that case, South Africa and/or Lesotho could consider exploring the possibility of bringing the Chinese firms to their countries to boost value-add and create jobs locally.

5. OPPORTUNITIES

The aim of this section is to assess if there any opportunities for growth that may be available along the regional value chain between South Africa and Lesotho.

Scenario 1: The current opportunity may lie in the potential collaboration between South Africa and the EU to move up the value chain into processing. Out of the 45 000 tons of wool that South Africa produces per year, more than 75% is exported with no processing. According to Letebele (2020, p13), "the processing capacity between the fleece (raw material) and the fabric (garment input) has been consolidated in China for mass output at competitive prices. Buyers for EU companies from the South African wool supply auctions ordinarily channel their purchases to Chinese converters, and the fabrics are supplied to manufacturers closer to the design houses in Europe. There are few other industries in which large number of low-skilled jobs can be created relatively quickly. The weak rand, and a growing imperative for global firms to diversify their supply chains, may provide further stimulus for investment in the sector."

If the EU takes advantage of these trade and investment opportunities in South Africa, the success of this initiative will provide additional jobs in South Africa. It will additionally have spill-over effects in Lesotho. In this case, Lesotho could diversify its markets and supply wool to South Africa over and above the shearing labour that it supplies to the South African wool industry.

Opening of a wool processing plant in South Africa could unlock some of the capabilities within the clothing and textile industry that South Africa has in its operations with other fibres such as cotton.

Scenario 2: If present situation prevails and the proposed projects do not take off, there are not many opportunities arising from the wool value chain between South Africa and Lesotho. The opportunities exist in the form of Lesotho being a supplier of labour at the shearing level, providing jobs and enhancing the livelihoods of the shearers' households through remittances. However, the diminishing sheep population becomes a threat to the wool industry in both countries.

As industrial policy requires moving up the value chain and adding more value on products, South Africa has not been able to take any opportunities that emanate from the properties of wool to bridge

the gap between the current situation and processing. So far, any attempts in value add locally have not rendered South Africa globally competitive, as the jobs in the existing wool processing activities are already threatened. The developed world has been able to maximise opportunities in the following benefits that wool has to offer and this has afforded them significant competitive advantage globally: in its safety as a fire retardant – instrumental in the production of fire-fighting apparel and household products such as rugs, sofas, and bed linen; biodegradability; breathability and odour resistant; durable; easy care; multi-climate; natural insulator; and elastic. The status quo is that South Africa and Lesotho produce wool only as an input of production for other countries that are at the higher end of the value chain. Although it attracts foreign exchange through exports, it is not labour-absorbing.

6. POLICIES

This section looks at options and policy levers available and whether they have been successful to unlock growth in the wool industry.

The National Development Plan (NDP) sets out as part of South Africa's vision the strategy to expand labour-intensive agricultural subsectors. This is to be pursued with the policy to increase industrialisation and export-led initiatives in the country. Wool is earmarked in the NDP as one of the high growth potential subsectors though it is not labour-intensive. This has proven to be the case as the wool industry has not been able to generate much needed jobs, but has managed to attract foreign exchange. However, wool has strong linkages with the labour-intensive industries along the value chain, especially with the often low-skill labour-absorbing manufacturing of clothing and textiles, even though this is not harnessed in South Africa.

Wool output: As part of enhancing export-oriented agricultural policies, targeted initiatives have been successfully undertaken in order to increase the wool output. The DRDLR, through the NWGA, coupled with training and development programmes by the Associations, is implementing the Ram Exchange Programme. This introduces 3 000 high- quality rams annually into the wool sheep stock to assist small communal farmers to acquire the quality breed. Its success has been demonstrated in the quantity and quality of wool shorn. The programme has been instrumental in increasing the fibre purchased from communal farmers by more than over 254% in 20 years, between 1998 and 2018. It, has also created more than 9 000 jobs in the same period and has helped to set up shearing and sorting infrastructure in communities. This has eliminated a large part of informal trading of wool, where rural farmers were typically receiving less than 20% of the value of their produce (Letebele, 2020).

This is not withstanding that a significant share of the volume was lost from commercial farmers, mainly from the conversion of many sheep farms to game farming, which kept output stagnant at below 50 million kg per annum sold, compared with a high of 101 million kg in 1990 (Cape Wools SA, 2020). The current output accounts for 2% of world wool production and the country would need to build back to the volumes recorded in the early 1990s to re-establish the full value chain (Letebele, 2020).

A similar initiative in Lesotho was the introduction of the sheep stud that produces improved breeds for farmers. In addition, to try and support inclusivity in the wool industry, governments provide extension services, working with the association of communal farmers to support production and marketing skills. These efforts have been effective in increasing the number of quality sheep for communal farmers, improving their livelihoods but not enough to transform them to commercial levels.

Localisation policy in Lesotho: The wool industry in Lesotho could benefit from collaboration with the technologically advanced South African private sector to set up the marketing systems locally. However, this has so far not encouraged any growth in the industry and has led to farmers' distress, with no demonstration of visible opportunities in the industry.

7. CONCLUSION AND PROPOSALS

The wool value chain between Lesotho and South Africa has a long history with greasy wool historically being exported through South Africa, and Basotho sheep shearers providing an important service to South African sheep farmers. The success of South Africa's wool industry has a direct impact on Lesotho. While Lesotho has in recent years attempted to break the dependence on South Africa by developing its own export capabilities, this has not been an entirely successful venture with negative outcomes for Lesotho's wool industry. Both in South Africa and more so in Lesotho, sheep farming and wool support sustainable livelihoods.

As shown in this paper, the South African and Lesotho wool industry is at a crossroads – exports of greasy wool can continue on a declining basis or investments can be galvanised to shift to niche high quality products that uses South African and Lesotho wool. The wool industry is experiencing reduced export volumes, with prices dropping, indicating the industry that is in a decline, demonstrated by Figures 6 and 7. The global market itself is under threat with a major issue being substitution by other (natural and synthetic) fibres. This is mainly driven by consumer demand of clothing and textiles in the consumer markets. There is not much South Africa can do to skew consumer preferences towards wool. The demand for wool is expected to grow only if income grows and consumers prefer high-value woollen clothing and textiles. This does not assist in resuscitating the dying value chain between Lesotho and South Africa.

Further, the nature of South African wool industry being export-oriented means that the industry is prone to external forces and has no influence on the prices of its wool in the international markets. As a result, there is nothing the country can do as a price-taker. Besides, the plateau in the demand for wool also means there is no further room to increase production substantially.

The evidence shows that the wool industry is shrinking regionally and globally. The value chain between Lesotho and South Africa shows that without active interventions there are no strong opportunities evident for the growth at any stage of this regional value chain. The implication is that as the industry continues to decline, people are going to lose their jobs and the livelihoods of their households will be at stake. In the absence of industrial policy, interventions to develop processing capacity as described in Scenario 1 are needed. Proper planning is required by both governments to make it possible for farmers and farm workers to move away from wool to other agricultural products that may be performing better, such as meat or horticulture. This possibility of a "just transition[2]" from wool needs to be guided by further research and development to explore other viable industries with high productivity, growth and industrial competitiveness that could be options for wool farmers.

Regionally, South Africa has a role to play in strengthening other regional countries. Lesotho has a weak private sector that could potentially be bolstered by South Africa through skills and technology to develop a robust marketing system that enables the localisation efforts to export wool from within the country. This alternative pathway could be profitable for Lesotho if it is able to significantly reduce the farmers' logistics costs associated with the export of wool to South Africa, and South Africa could benefit by exporting its skills and providing jobs for its people. In this case, South Africa will be assisting in setting up the infrastructure that allows the Lesotho wool producers to compete transparently with access to international markets. Opportunities that already exist for Lesotho are in the effective and efficient shearers. Regional integration between Lesotho and South Africa already benefit from the Lesotho shearers to a large extent. However, investments in this declining trend would be difficult and need to be explored deeply before the two countries could engage in them.

[2] Not compromising the economic value of the farmers who will be affected by the displacement.

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