



THE TANZANIA'S LEATHER VALUE CHAIN

A REVIEW OF LITERATURE



TRADE C&M PROGRAMME



BUILDING ACP TRADE CAPACITY
RENFORCER LES CAPACITÉS COMMERCIALES DES ACP

Keywords

Value chain, leather sector, livestock, hides and skins, leather manufacturing.

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Abstract

This paper investigates the leather value chain in Tanzania. Tanzania has large livestock production that potentially provides raw materials for the leather industry but the contribution of the leather industry in the economy is remarkably minimal. Analysis finds that challenges related to inadequate livestock management, limited coordination of downstream and upstream activities, low capacity utilisation and limited adoption of skills and technology inhibit the leather value chain development in Tanzania. The study recommends an integrated approach to address existing challenges in livestock production, slaughtering facilities, hides and skins collection, tanning industry, and light manufacturing in order to move up the leather value chain, raise the sector's competitiveness, and increase its contribution to GDP. This report identifies easily adaptable international best practices employed by other developing countries in the global south including China, India, Tunisia, Ethiopia, and Kenya to scale the leather value-added chain. These include a common framework approach to support key value enabling facilities such as tax incentives, leather research institutes, grading institutions, innovation, and dedicated training facilities. Such an approach could revitalise Tanzania's policies for the leather industry by strengthening the capacity for effective implementation of export competitiveness and diversification.

Acronyms

CLRI	Central Leather Research Institute
FAO	Food and Agriculture Organization
FYDP II	Tanzania's Five-Year Development Plan II
GDP	Gross domestic product
H&S	Hides and Skins
ITC	International Trade Centre
KIRDI	Kenya Industrial Research and Development Institute
LIDI	Leather Industry Development Institute
TLMI	Tanzania Livestock Modernization Initiatives
TPCSI	Training and Production Centre for Shoe Industry
UNITSD	The United Nations International Trade Statistics Database
WDI	World Development Indicators

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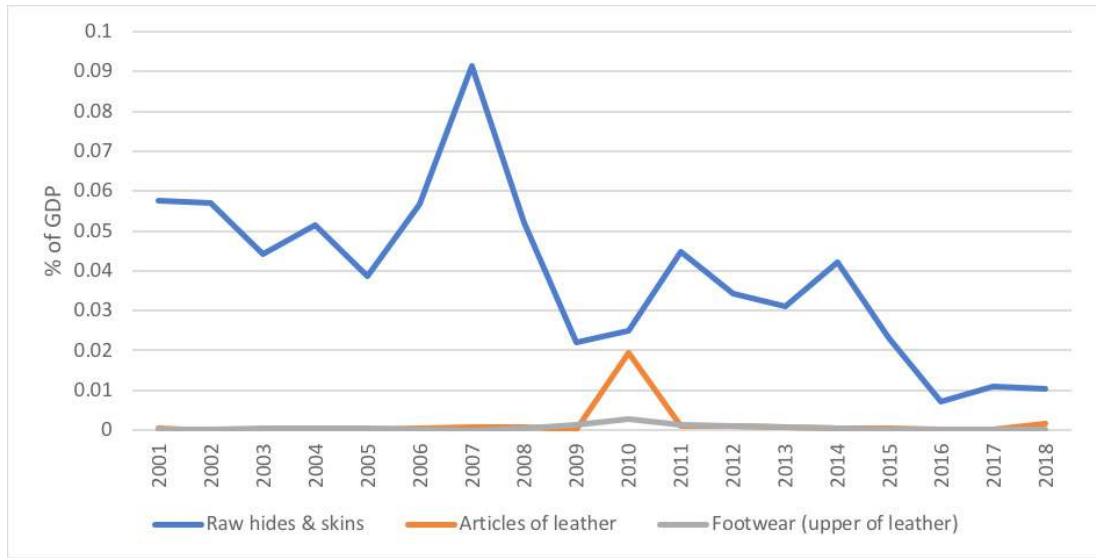
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01. Introduction

Tanzania experienced rapid economic growth in the last two decades. According to World Bank data (2020), real GDP growth was on average of 6.3% per year and income per head grew by 3.3% annually. The agriculture sector dominates the Tanzanian economy that provides a livelihood for around 55% of the population (three-quarters of the poor) and accounted for 29% of GDP in 2017 (World Bank, 2020). Developments in this sector will have a direct impact on economic growth and poverty alleviation, especially if Tanzania can move up the value chain by developing and strengthening manufacturing of agricultural products. One of Tanzanian industries that is linked to agriculture and manufacturing sector has and with the potential to be further developed is the leather industry.

Tanzania is generously endowed with livestock. The Food and Agriculture Organisation (FAO) (2020) notes that Tanzania has the second largest livestock production in Africa after Ethiopia with 27.4 million head of cattle, 18.4 million head of goats, and 7.8 million head of sheep in 2019. This sector provides livelihoods for 1.7 million households (International Trade Centre, 2018) and contributed 7.6% to the GDP in 2018 (Ministry of Livestock and Fisheries, 2019).

Figure 1: Tanzania’s raw hides & skins, articles of leathers, and footwear (upper of leather) exports, 2001-2018 (% of GDP)



Source: Calculations by the author based on International Trade Centre (ITC) and World Development Indicators (WDI) (2020).

02. Data and Methodology

Large livestock production potentially supplies cheap hide and skins to the leather industry. This potential is recognized by policymakers indicated by Tanzania's Five-Year Development Plan II (FYDP II), which emphasizes the leather sector as one of the priority sectors for national economic transformation. However, the leather industry in Tanzania is still underperforming as indicated by exports earning from this sector (Figure 1), which was only 0.01% of GDP in 2018. Of this small amount, the majority of exports are dominated by raw hides and skins exports, which accounted for 83.82% of total exports in 2018. Exports of articles of leather accounted for 14.33% of total exports in 2018, while finished products such as footwear contributed very minimal at 1.84% of total exports in 2018.

03. Leather Global Market Trends

This paper aims to investigate the leather value chain in Tanzania. The remaining sections of the paper are organised as follows. Section 2 presents the data and methodology, followed by the leather global market trends in Section 3. Section 4 gives an overview of the Tanzanian leather sector. Section 5 discusses the Tanzanian leather value chain, followed by the trade policy in Section 6. Section 7 discusses international comparison and Section 8 presents the conclusions.

This paper uses a quantitative research method using secondary data. The data has been obtained from the International Trade Centre (ITC), Food and Agriculture Organization (FAO), World Development Indicators (WDI), International Monetary Fund (IMF), International Growth Centre, Leather Development Fund Committee, and Tanzania Investment Centre. This study also uses a literature review of the existing literature. The literature discussed in this paper is not only limited to academic literature but also non-academic literature such as government documents. The analysis focuses on descriptive statistics and presents relevant data supporting its arguments in graphs and tables.

The ITC (2016) projected increase in the demand for leather goods over the next ten years triggered by stable demand from leather importing countries such as the United States of America, Italy, and China and the rapid rise of the middle class in emerging market economies such as China, Brazil, Russia, India and South Africa. Figure 2 shows global leather exports have more than doubled from US\$50 billion in 2001 to US\$112 billion in 2014 but then exports stagnated until 2016 possibly due to the world trade slowdown. It quickly returned to the increasing trend since 2016. The global financial crisis in 2007 caused a temporary decrease in the value of global leather exports from US\$79 billion in 2008 to US\$64 billion in 2009, but its recovery was quick and returned to trend in 2011 (Figure 2).

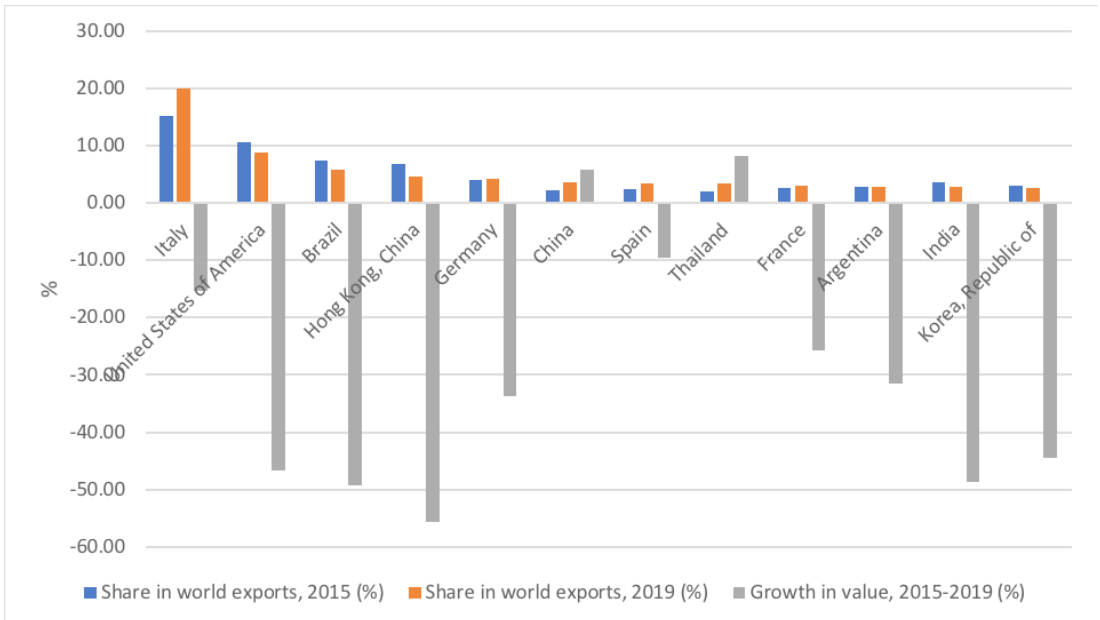
Figure 2: Global leather export value, 2001-2019 (US\$ billions) and 4 year moving average.



Source: ITC calculation based on the United Nations International Trade Statistics Database (UNITSD) (2020).

The global raw hides and skins export is dominated by 12 countries with a share of more than 60% of the world's market. Italy, the United States, and Brazil are the top three exporting countries that accounted for more than a third of the world's market in 2019. As Figure 3 shows, many countries experienced a decline between 2015 and 2019 with the biggest losses experienced by Brazil, India, and the US with decreases by 50%, 49%, and 47%, respectively. This decline was most likely due to the downward trend of hides prices from 87.7 cts/lb in 2015 to 39.2 cts/lb in 2019 (see Figure 6). Only Thailand and China experienced an increase from 2015 to 2019 at 8% and 6%, respectively.

Figure 3: Share and growth in value of world exporters raw hides and skins and leather, 2015–2019 (%)



Source: ITC calculation based on the UNITS (2020).

Table 1 shows global leather exports are dominated by finished products including footwear and handbags with 61% of total exports. Developed countries dominate exports of finished products, i.e. handbags from Italy accounted for 33% of total exports in 2019. In terms of raw material, leather further prepared after tanning and crusting had the highest portion of 8%, followed by tanned or crust hides and skin of bovine at 3% of total exports.

Table 2 shows the global production of hides and skins is dominated by cattle that accounted for 69% of the total production in 2018, followed by sheep, goats, and buffalo that represented 15%, 10%, and 7%, respectively.

Table 1: Share in value of world leather exports by product, 2019 (%)

No.	Product code	Product label	% in 2019
1	640399	Footwear with outer soles of rubber, plastics or composition leather, with uppers of leather	27.45
2	420221	Handbags with outer surface of leather, composition leather or patent leather	14.92
3	640391	Footwear with outer soles of rubber, plastics or composition leather, with uppers of leather	12.35
4	4107	Leather further prepared after tanning or crusting	8.10
5	420231	Wallets, purses, key-pouches, cigarette-cases, tobacco-pouches	4.68
6	640359	Footwear with outer soles and uppers of leather	4.05
7	4104	Tanned or crust hides and skins of bovine "incl. buffalo" or equine animals	3.04
8	4205	Articles of leather or composition leather	2.72
9	420310	Articles of apparel, of leather or composition leather	2.53
10	640340	Footwear, incorporating a protective metal toecap	2.42
11		Others	17.74

Source: ITC calculation based on the UNITS (2020).

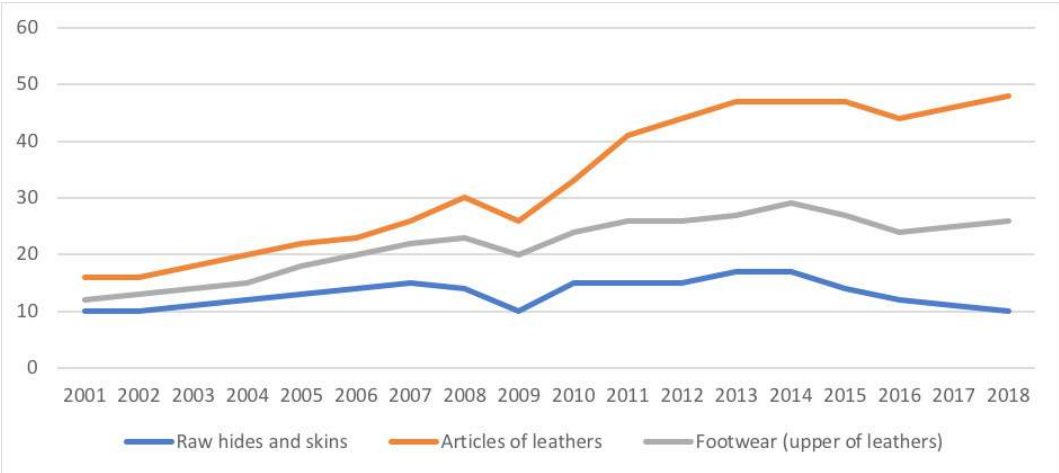
Table 2: Share of hides and skins production by type, 2018 (%)

Type	Volume (100,000 tonnes)	%
Hides, cattle, fresh	84	69
Skins, sheep, fresh	19	15
Skins, goat, fresh	12	10
Hides, buffalo, fresh	8	7
Total	123	101

Source: Food and Agriculture Organization of the United Nations (2020).

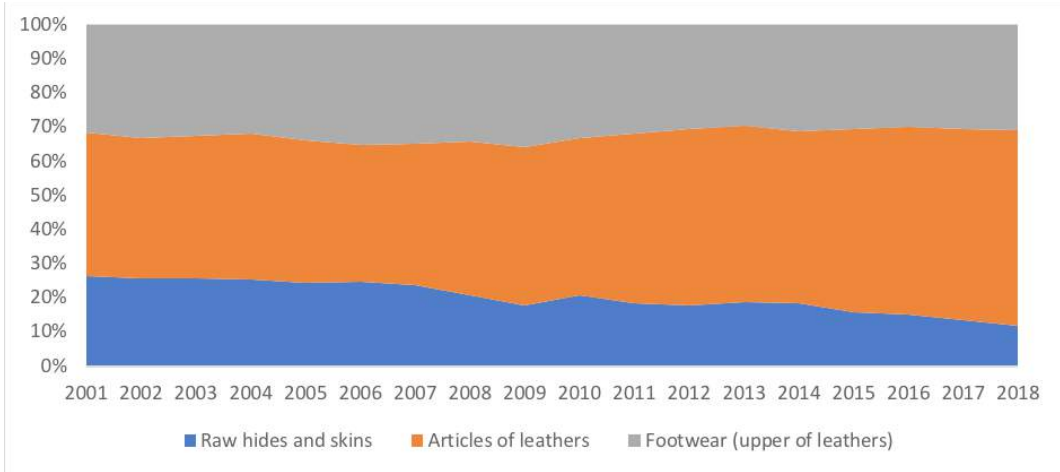
Developed countries dominate the global leather market but there are considerable shifts in the location of leather tanning and manufacturing. European countries are, for example, are losing markets to developing countries where production costs are lower and environmental regulations are less demanding (Muchie, 2000: 538). Figure 4 shows earnings from exports of raw hides and skins in developing countries has marginally risen from US\$10.0 billion in 2001 to US\$10.3 billion in 2018. Earnings from exports of footwear (upper of leathers) in developing countries in contrast have doubled from US\$12.3 million in 2001 to US\$25.6 million in 2018. It shows leather industry can become an important industry in developing economies, implying an effort to identify the challenges faced by the supply and demand of the leather industry is important.

Figure 4: Earnings from Exports of hides and leather products in developing countries, 2001 – 2018 (US\$ billions)



Source: ITC calculation based on the UNITSD (2020).

Figure 5: Earnings from Exports of hides and leather products in developing countries, 2001 – 2018 (%)



Source: ITC calculation based on the UNITSD (2020).

04. An Overview of Tanzanian leather sector

The leather sector in Tanzania has declined since privatization and market liberalization policies in the 1980s (ITC, 2016). The decline mainly occurred in light manufacturing, especially shoes and other leather goods which are currently replaced by imported products (ibid). The Tanzanian tanneries industry have also deteriorated since the 1980s, where it currently operates under installed capacity.

Policymakers in Tanzania have been trying to improve the leather industry through various policies (Lwesya, 2018: 134), including the National Livestock Policy in 2006; integrated hides, skins, and leather strategy in 2007; launching of Tanzania Livestock Modernization Initiatives (TLMI) in 2015; , introduction of demand-driven hides and skin curriculum for Livestock Training Institutes and curriculum for leather processing and footwear manufacturing at technical institutions;; and the Tanzania Leather Sector Development Strategy in 2016.

However, these efforts have not shown satisfactory results. The contribution of earnings from exports of hides and skins and leather industry to the economy of Tanzania is still minimal accounting for only 0.01% of GDP in 2018 (ITC, 2020). Figure 6 shows Tanzanian raw hides, skins, and wet-blue exports having been fluctuating between US\$3.6 million and US\$21.06 million throughout 2001-2018. Tanzania’s raw hides, skins, and leather exports reached a peak in 2014 at US\$21.06 million. Articles of leather and travel goods exports reached a peak in 2010 at US\$6.19 million, but the trend has declined until 2017.

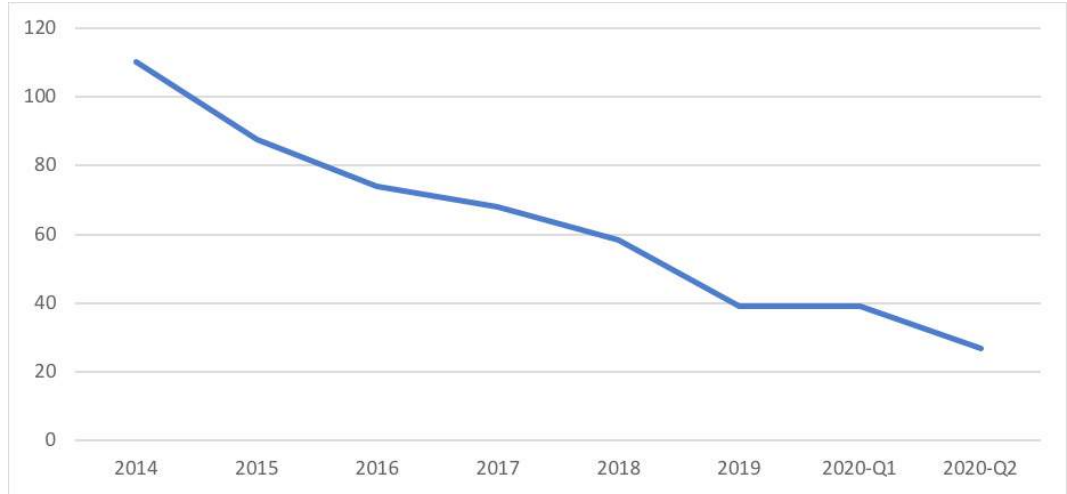
Figure 6: Tanzanian exports of leather, 2001–2018 (US\$ thousands)



Source: ITC calculation based on the *UNITSD* (2020).

Tanzania mostly exports raw materials and low value-added leather. Raw hides, skins, and wet-blue leather dominated the value of exports between 2001 and 2018 at 94% of total exports, while articles of leather and leather footwear exports were only 6% of all exports between 2001 and 2018. Relying on raw material exports is unfavourable for the Tanzanian economy given the global market prices for this commodity continue to decline, as Figure 7 shows, from 67.9 US cts/lb in 2017 to 58.4 cts/lb in 2018 and 39.2 cts/lb in 2019. Muchie (2000) estimates that if a company moves up to processed hides, it potentially increases its earnings by more than 400%. In addition, if a company moves up to finished products, it gives a chance to earn up to ten times the value of wet-blue (Brautigam et AL., 2018: 162).

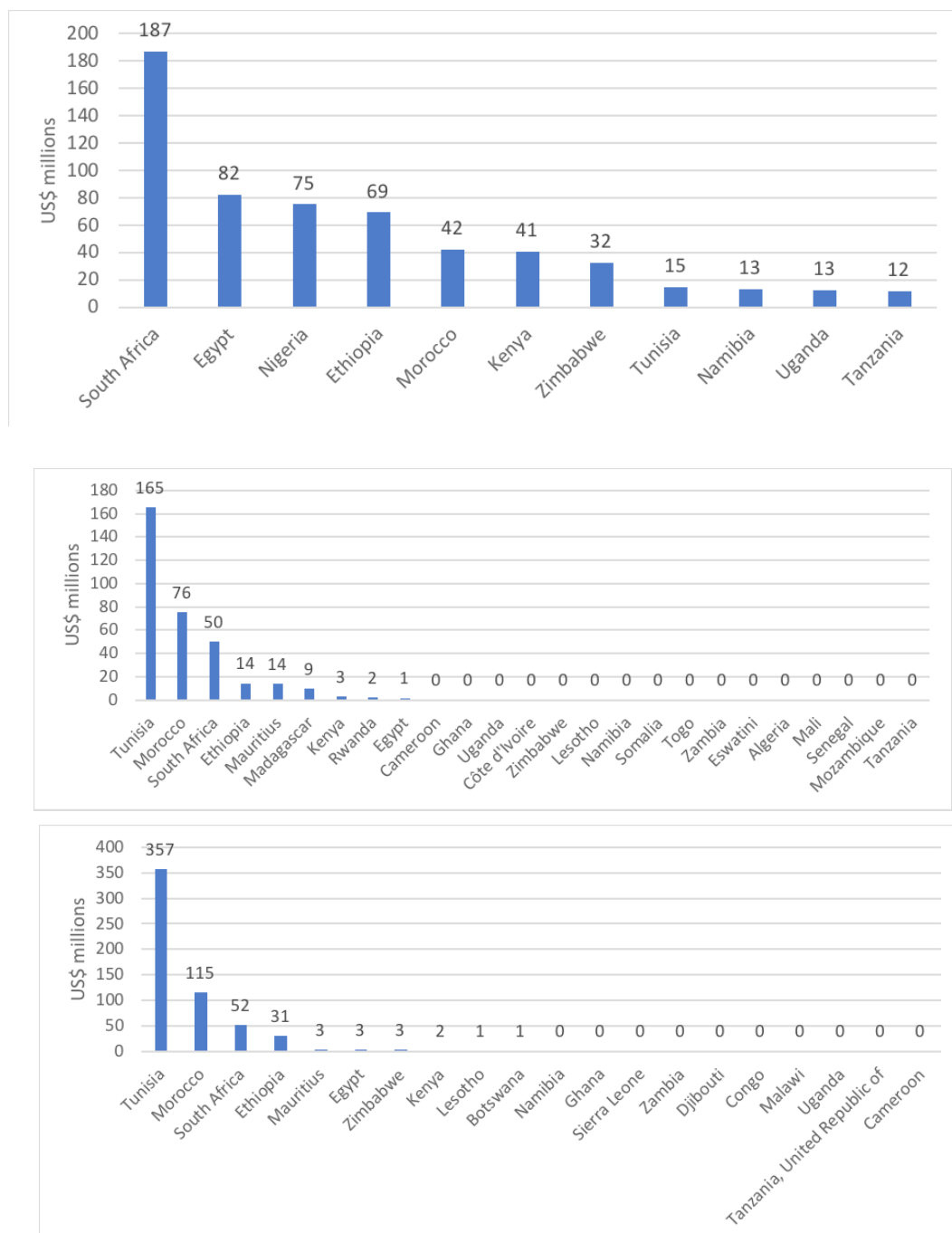
Figure 7: Actual market price for hides, 2017 – 2020 (US cts/lb)



Source: *International Monetary Fund (2020).*

Although Tanzania has the second largest livestock production in Africa, the country's market share in leather exports in the African region is remarkably minimal. Figure 8 shows Tanzania ranked 11th for hides and skins exports with a total value of US\$1.2 million or 1.8% of total exports in 2019. South Africa became the largest hide and skin exporting country with a share of almost a third of Africa's market in 2019. In the export of articles of leather, Tanzania is ranked 25th behind Senegal and Mozambique. Tanzania ranked 19th in the export of footwear (upper leather), followed by Cameroon. Tunisia ranked first in export revenues both in articles of leathers and footwear with a share of 49% and 63% of total exports in the Africa region in 2019, respectively.

Figure 8: Major African exporters of H&S (top), articles of leather (Centre), and leather footwear (bottom) in 2019 (US\$ millions).Source: ITC calculation based on the UNITS D (2020).



Source: ITC calculation based on the UNITS D (2020).

Table 3 shows Tanzanian hides and skins exports are dominated by bovine-derived products of US\$6.91 million and accounted for a third of total exports, followed by other raw hides and skins of US\$3.99 million or 34% of total exports. Tanzania has had a poor export performance in the leather products. In the past, these products were mostly from trunks and suitcases that reached a peak of US\$6 million in 2010, but it declined to US\$56,000 in 2019 (see Table 4).

Table 3: Most-exported Tanzanian hides and skins products, 2008–2019 (US\$ thousands)

Code	Product label	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
41	Total H&S	14,548	6,422	8,030	15,484	13,638	14,253	21,068	10,989	3,602	5,911	6,007	11,568
'4101	Raw H&S of bovine / equine animals	1657	473	598	1858	1189	0	560	29	451	1493	2716	6913
'4103	Other raw H&S	2174	610	1006	2550	1165	87	1051	565	639	314	300	3996
'4106	Goat / kid skin leather, other than leather of heading no 41.08 / 41.09	3566	1460	2681	3179	4514	3026	2111	1395	732	1344	850	484
'4104	Leather of bovine / equine animal, other than leather of heading 4108 / 4109	6012	3681	1865	5183	3715	5883	13246	7124	1482	2227	2050	143
'4105	Sheep / lamb skin leather, other than leather of heading no. 4108 / 4109	650	114	1670	2685	3048	5124	4002	1871	120	511	17	

Source: ITC calculation based on the *UNITSD* (2020).

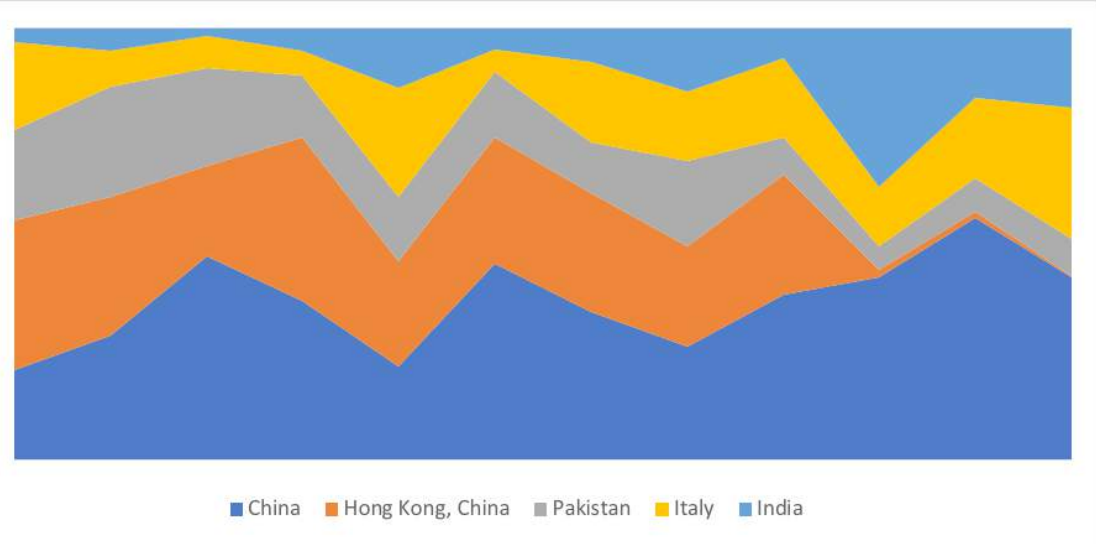
Table 4: Most-exported Tanzanian leather products, 2008–2019 (US\$ thousands)

Code	Product label	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
42	Total articles of leather	224	80	6,190	404	368	343	161	261	46	64	1,027	64
'4202	Trunks, suitcases, vanity cases, executive-cases, briefcases, school satchels, spectacle cases	195	72	6187	393	352	332	125	241	38	56	139	56
'4203	Articles of apparel and clothing accessories, of leather or composition leather	22	6	3	7	9	0	35	19	7	6	888	5
'4205	Articles of leather or composition leather	8	1	0	4	5	10	0	1	0	1	0	1

Source: ITC calculation based on the *UNITSD* (2020).

The largest destination for Tanzanian hides and skins are to the Asian markets, particularly China (including Hong Kong), Pakistan, and India that accounted for 26% of total exports in 2018 (Figure 9). Italy ranked fourth with a total share of 11% of total exports in 2018.

Figure 9: Main export destinations for Tanzanian hides and skins, 2007-2018 (US\$ thousands)

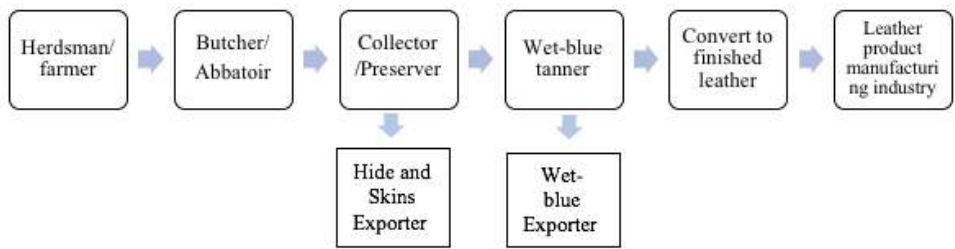


Source: ITC calculation based on the *UNITSD* (2020).

05. The Tanzanian Leather Value Chain

The leather value chain in Tanzania is intrinsically linked to the livestock industry. In Tanzania, livestock keeping is usually a household affairs with ownership of less than 10 head of animals (ITC, 2016: 21). Upstream leather value chain activities often preclude a role for livestock keepers with limited targeting of interventions on livestock management and animal husbandry. The absence of institutionalised support to safeguard the quality of hides and skins at the farmgate level inhibits access to quality supply of raw materials by the tanning industry (ITC, 2016). The quality of the leather value chain’s raw materials is often affected by a combination of livestock health constraints, proliferation of traditional husbandry practices, sub optimal nutrition, and inadequate skin handling practices (IGAD, 2016). This section will discuss the leather value chain in Tanzania that starts with supply chains in the livestock production, slaughtering and hide and skins collection (see Figure 10).

Figure 10: The leather value chain in Tanzania

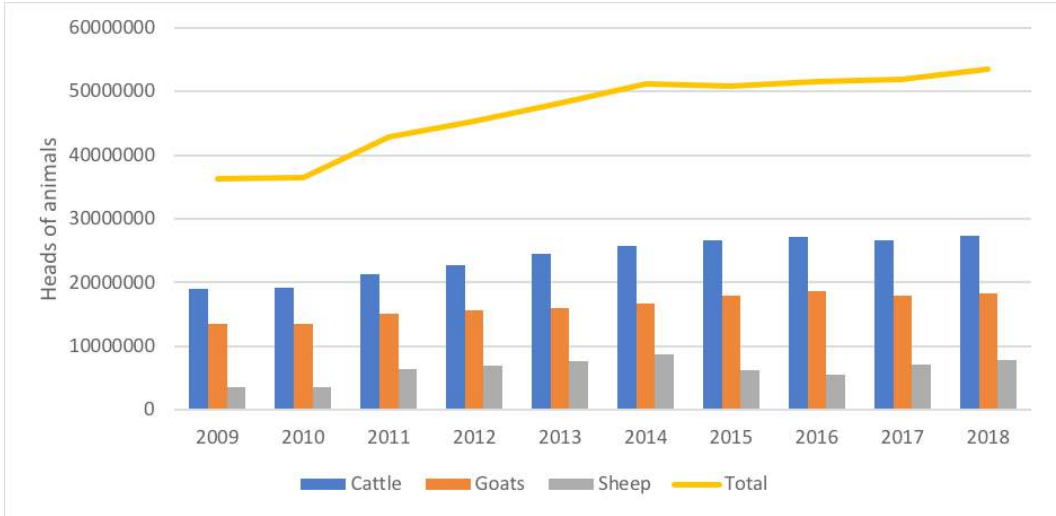


Source: International Growth Centre (2012) and ITC (2004).

5.1 Livestock Production

As indicated above, Tanzania has the second largest livestock production in Africa after Ethiopia with 27 million head of cattle, 18 million head of goats, and 8 million head of sheep in 2018 (see Figure 11). However, the majority of livestock production is carried out in a traditional practice on a household scale with a stock of less than 10 animals (ITC, 2016). Livestock production for 80% consists of traditional agro-pastoralists and 14% of pastoralists (China and Ndaro, 2016). A small portion of livestock production is operated by the state-owned company National Ranching Company Limited (NARCO) representing around 7% of all livestock (China and Ndaro, 2016). This traditional livestock production practice often causes defects in animal skin resulting in the poor quality of hides and skins (URT, 2017; Jabbar, 2002).

Figure 11: Tanzanian livestock production, 2009–2018 (heads of animals)



Source: Food and Agriculture Organization of the United Nations (2020).

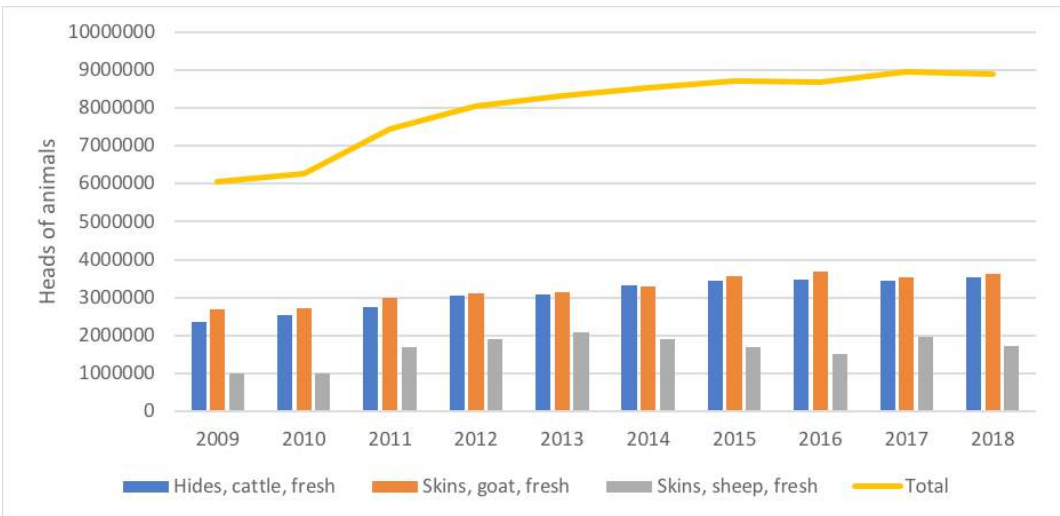
5.2 Slaughtering

Adequate slaughtering facilities to support leather manufacturing are not available in Tanzania. Based on International Trade Centre data (2016), there are about 1000 slaughter slabs and 75 slaughterhouses with a capacity of about 1-10 cattle per day and 100 cattle per day, respectively, owned by private companies and local governments. Most of these slaughter facilities are simple buildings where killing and dressing are carried out on the floor. Informal slaughters also operate throughout the country with poor building conditions, hygiene, and safety. Inadequate slaughter facilities cause animal skin to be mixed with blood and faeces which makes skin preservation hard. In addition, slaughtering facilities in Tanzania are located far from tanneries creating additional transportation cost and potential damage that deteriorate hide and skins quality (China and Ndaro, 2016).

5.3 Hides and Skins Collection

The production of hides and skins is very low compared to livestock production. In 2018, the production of hides and skins reached 3.53 million heads of cattle, 3.63 million heads of goats, and 1.71 million heads of sheep (see Figure 12). ITC (2016) stated that only about 75% are collected, while the remaining 25% is disposed as waste. According to the informal discussion with community around Tengeru slaughterhouse (see Figure 13), the disposed and abandoned hides and skins produce bad smell thereby bringing chaos to the residents.

Figure 12: Tanzanian production of H&S, 2009–2018 (equivalent to heads slaughtered)



Source: Food and Agriculture Organization of the United Nations, 2020.

Figure 13: Disposed and abandoned hides and skins at Tengeru Slaughter House



Source: Fieldwork in 2019

Collectors obtain hides and skins from three sources that are slaughtering places, drying sheds, and collection centres of slaughterhouses and abattoirs. Price of the hide and skins is seasonal and varies. Approximately 10% of hides and skins are exported as raw hides and skins, while the rest is handed over to tanneries to be processed into wet-blue which is subsequently exported or distributed to the local leather industry (China and Ndaro, 2016).

5.4 Tanning Industry

Tanning is a process of transforming raw hides and skins into the leather that aims to prevent decaying (China et al, 2020). Tanning industry in Tanzania has a long tradition, the oldest company is Himo Tanners that was established in 1895 (International Growth Centre, 2012: 131). Furthermore, the Tanzanian government established three large scale tanneries between 1967 and 1984 with a total annual installed capacity of 2.8 million square meters of leather, namely Tanzania Tanneries (Moshi), a joint venture between Tanzania and the Swedish government, which was built in 1968; Morogoro Tanneries which was built in 1974 and operated in 1979 with financial assistance from Bulgaria; and Mwanza Tanneries which was built in 1974 and began production in 1979 with a loan from the World Bank (International Growth Centre, 2012).

Tanning industry in Tanzania reached its peak in the 1980-1985 period where three government-owned companies operated at full capacity. This sector has suffered a setback since the 1990s as a result of privatization (International Growth Centre, 2012). Currently, there are nine tanneries in operation in Tanzania with a total annual capacity to process 4.7 million hides and 12.8 million skins which is equivalent to 104 million square feet per year (see Table 5). These tanning companies buy salted or dried hides and skins directly from slaughterhouses, collectors, or salting slabs/ drying sheds (ITC, 2016). However, these tanneries work well below capacity with utilization at around 61% for skins and 86% for hides of total annual installed capacity (Ministry of Finance and Planning, 2016).

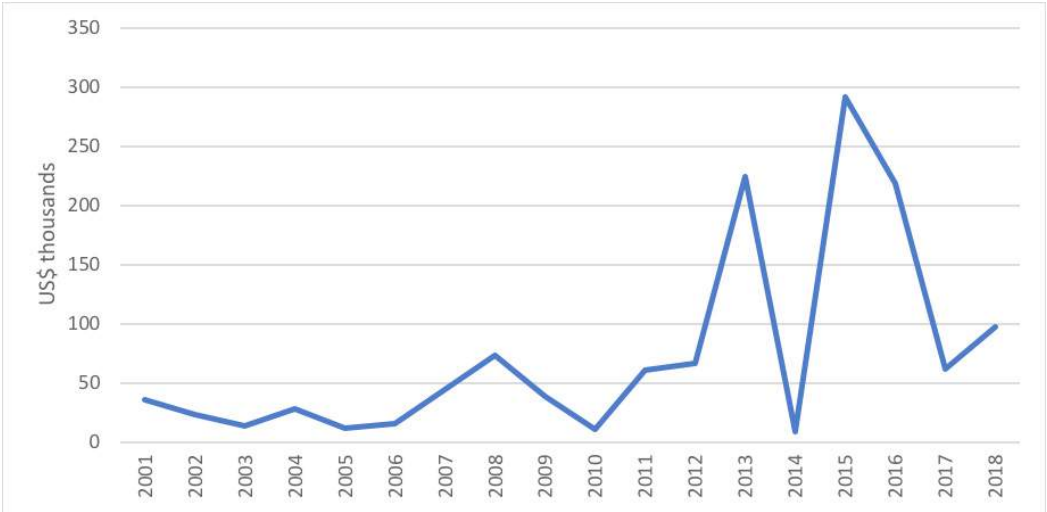
Table 5: Selected tanneries capacity in 2015

Company	Location	Installed annual capacity (pieces)		Installed annual capacity (Sq. ft)
		Hides	Skins	
□Afro Leather Industries Ltd	□Dar es Salaam	300000	700000	10650000
□Lake Trading Co. Ltd	□Kibaha	90000	420000	4260000
□Himo Tanners & Planters Ltd	□Moshi	90000	900000	6300000
SAK International Ltd	□Arusha	450000	900000	15300000
Moshi Leather Industries Ltd	Moshi	180000	1200000	9900000
ACE Leather Tanzania Ltd	Morogoro	1200000	3600000	27450000
Meru Tanneries Ltd	□Arusha	624000	1500000	8310000
Xing Hua Investment Co. Ltd	Shinyanga	900000	2100000	12700000
Huacheng International Ltd	Dodoma	900000	1500000	9000000
Total		4734000	12820000	103870000

Source: Leather Development Fund Committee (2015) in Tanzania Investment Centre (2018).

Approximately 9% to 10% of collected hides and skins are being processed to leather, the rest is exported as raw hides and skins and wet-blue (China and Ndaro, 2016). Production to wet-blue is still limited at around 170,000 hides and 720,000 skins, well below the annual collection of 2.9 million hides and 4.3 millions of skins (Mwangosi, 2014; China and Ndaro, 2016). On the other hand, Tanzania experienced an increase in imported processed leather between 2001 and 2018. Figure 14 shows processed leather imported by Tanzania increased from US\$23,000 in 2001 to US\$97,000 in 2018 with a peak in 2015 at US\$292,000. Tanzania can potentially reduce imported processed leather if the country manages to increase tanning production to its full capacity.

Figure 14: Raw hides & skins and leather imported by Tanzania, 2001 – 2018 (US\$ thousands)



Source: ITC calculation based on the UNITSD (2020).

The tanning sector also faces a challenge of environmental protection standards. In most cases, effluent from tanneries exceeds the limits set by national and international standards due to lack of and/or inefficient effluent treatment plants in the tanneries (Scheren, 1995). As many as 90% of the world's leather is chrome tanned which has a strong impact on water pollution (China et al., 2020, Unango et al, 2019; Bacardit et al., 2014). This pollution is also common in the Tanzanian tanneries which causes some of the important valleys, lakes, and rivers to be polluted by industrial waste (Maziku, 2014; Mwandosya, 1995; Scheren, Bosboom, Njau, & Lemmens, 1995; NBS, 2017; China & Ndaro, 2016; Mkuula, 1993). Most tanneries in Tanzania are old companies that require technology upgrades to comply with international environmental standards (URT, 2015; China and Ndaro, 2016).

5.5 Leather goods manufacturing

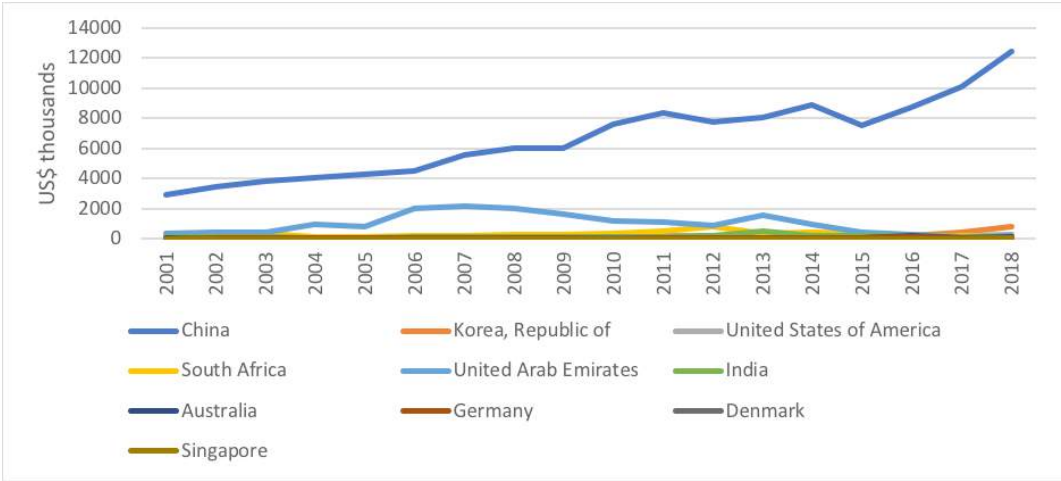
Leather goods manufacturing in Tanzania predominantly focuses on the production of footwear related articles. The footwear industry in Tanzania started to develop in 1958, when Tanganyika Bata Shoe Company Ltd., a subsidiary of Bata Shoe International, opened a factory in the country (International Growth Centre, 2012). The Tanzanian government later set up a state-owned shoe company, Morogoro Shoe Company in 1980. In this period, the Tanzanian government also nationalized Bata and changed its name to Bora Shoe Company. Both companies have installed capacities of 7 million pairs of shoes annually (International Growth Centre, 2012). The footwear industry in Tanzania reached its peak in 1980 - 1985 coinciding with

that of the tanning industry. In this period, light manufacturing in leather sectors aimed to meet the local market, highly protected, and inefficient compared to international standards (ITC, 2004). Footwear manufacturing has declined during privatisation and liberalization in the 1990s caused by limited input supply, lack of investment, severe competition from imports, lack of technology, and lack of skilled manpower (ITC, 2016; China and Ndaro, 2016). The leather goods manufacturing in Tanzania was reported to be in a state of collapse (ITC, 2004). It is mainly dominated by SMEs who can produce only 30 pair of shoes per day due to lack of machines associated with inadequate capital to afford buying machines (Giliard and Mtengwa, 2017). There are more than 40 micro, small, and medium-sized enterprises and two large enterprises that produce footwear and leather products (ITC, 2016).

A state-of-the-art leather goods factory established in Kilimanjaro (Kilimanjaro International Leather Industries Ltd.) is expected to stimulate the development of leather goods manufacturing subsector in near future (Correspondent, 2020). According to Ministry of Finance and Planning (2016) this sector is estimated to provide a livelihood for around 1,000 people directly. Most footwear companies in Tanzania are artisan-based producing for the domestic market (Tanzania Export Development Strategy: Leather Sector, 2004).

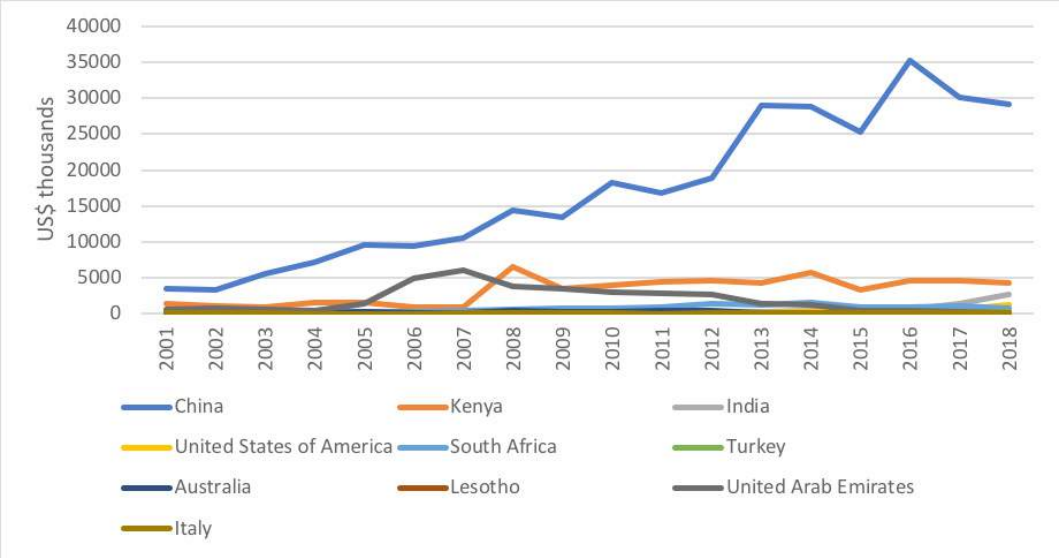
The Tanzania footwear industry has a production capacity of 300,000 pairs per annum, while the footwear demand is estimated at 46.8 million pairs per annum (ITC, 2016). The gap between production and demand is filled by imports, mostly from China, Kenya, the United Arab Emirates, South Africa, India (see Figure 15 and Figure 16).

Figure 15: List of supplying markets for articles of leather imported by Tanzania, 2001-2018 (US\$ thousands)



Source: ITC calculation based on the *UNITSD* (2020).

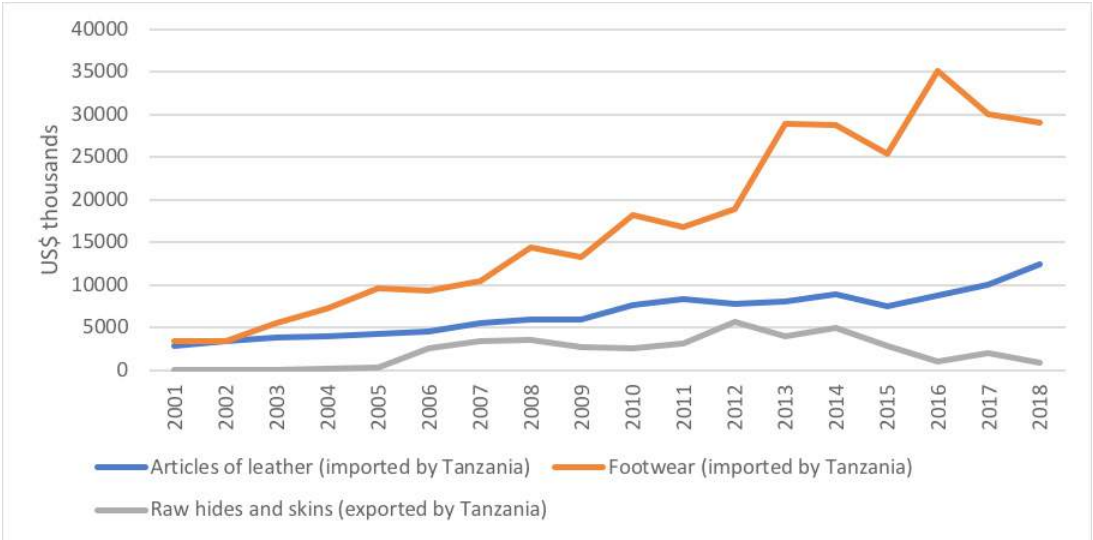
Figure 16: List of supplying markets for footwear imported by Tanzania, 2001-2018 (US\$ thousands)



Source: ITC calculation based on the *UNITSD* (2020).

China is the largest exporter of articles of leather and footwear to Tanzania. Articles of leather imports from China experienced an upward trend, as Figure 17 shows, from US\$3 million in 2001 to US\$12 million in 2018. Imported footwear from China also increased from US\$3 million in 2001 to US\$29 million in 2018. This shows raw materials originating from Tanzania are processed by China into finished products, then exported back to Tanzania, leading Tanzania to experience a trade deficit with China.

Figure 17: Tanzania and China in leather exports and imports, 2001 – 2018 (US\$ thousands)



Source: ITC calculation based on the *UNITSD* (2020).

06. Trade Policy

The leather industry in Tanzania has experienced a sharp decline since the adoption of privatization policies in the 1980s. Various obstacles are still faced in the upstream sector so that the supply of quality raw material is not met, while the downstream sector of the industry is not developed. Currently, Tanzania’s leather industry is dependent on exports of raw hides and skins. Problems escalated when the light manufacturing leather industry suffered a setback, while imports of cheap leather goods was flooding the local market (Tairo, 2019).

The Tanzanian government took a number of policies to improve the leather sector, one of which was through the application of export levy for raw hides and skins that began in 2003. The Tanzanian government implemented a levy of 20% of the free on-board value of exports in 2003. Levy was increased to 40% in 2007 but this triggered an increase in hides and raw skins smuggling to neighbouring countries, especially Kenya and Uganda. In 2012, export levy was increased to 90% of the free on-board value (Table 6). The Tanzanian government also implemented a 10% levy on the free on-board price on wet blue in June 2015 (Table 7).

Table 6: Export levy on raw hides and skins

Year	Percentage
2003	20%
2007	40%
2012	90%

Source: ITC, 2016.

Table 7: Export levy on wet-blue

Year	Percentage
2015	10

Source: ITC (2016).

The implementation of the export levy on raw hides and skins exports has two objectives. First, it reduces the export of raw hides and skins, thus encouraging local manufacturing. Second, the funds obtained from the application of levy (Livestock Development Fund – LDF) are used to develop leather industry value chain such as livestock sector, tanning industry, footwear and leather products industry as well as vocational training (URT, 2015).

Table 8: The collection and exports of cattle, goat, and sheep skins in Tanzania, 2003-2018

	Cattle skins			Collection	Export	Collection - Export
	Collection	Export	Collection - Export			
2003	2,437,100	1,300,000	1,137,100	6,437,790	900,000	5,537,790
2004	2,765,120	1,774,000	991,120	4,998,234	1,919,000	3,079,234
2005	1,937,215	1,400,000	537,215	2,789,230	1,797,155	992,075
2006	1,975,721	1,363,721	612,000	2,987,105	2,078,510	908,595
2007	2,168,000	1,700,000	468,000	5,995,305	1,980,530	4,014,775
2008	2,543,280	2,300,000	243,280	3,576,230	2,700,000	876,230
2009	1,223,668	982,668	241,000	6,983,998	3,469,936	3,514,062
2010	2,456,540	739,315	1,717,225	3,678,294	2,088,582	1,589,712
2011	2,378,235	1,719,506	658,729	4,978,000	1,561,000	3,417,000
2012	3,022,400	2,000,000	1,022,400	4,928,000	3,600,000	1,328,000
2013	2567340	1,269,060	1,298,280	6325525	2,582,525	3,743,000
2014	2,263,472	1,263,472	1,000,000	3,567,321	2,716,436	850,885
2015	2,543,914	1,388,139	1,155,775	5,983,210	1,020,000	4,963,210
2016	2,654,400	1,575,139	1,079,261	6,132,212	1,124,000	5,008,212
2017	2,790,561	1,215,030	1,575,531	6,643,998	928,115	5,715,883
2018	2,896,796	828,079	2,068,717	7,022,908	1,009,101	6,013,807

Source: Tanzania's Economic Survey (2018)

There has been no research investigating the impact of the export levy on decreasing export of raw hides and skins. Table 8 shows the collection, exports, and gap between collection and exports of cattle, goat, and sheep skins from 2003 to 2018. If the export levy has an impact on decreasing the export of raw hide and skins, the gap between collection and export will be higher after the levy is implemented, assuming hide and skins are used for local industry. As Table 8 shows, the implementation of an export levy of 20% in 2003 and 40% in 2007 does not seem to have had an impact on the gap between collections and exports of raw materials in 2003, 2004, 2007, and 2008. The gap between collection and export has decreased in 2003 from 1.1 million cattle skins in 2003 to 991,000 in 2004. However, the gap between collection and export of raw materials has increased in 2012 and 2013, with details of an increase from 1 million from 2012 to 1.2 million cattle skins in 2013 and 1.3 million in 2012 to 3.7 million of goat and sheep skins in 2013. This increase was probably due to the adoption of an export levy of 90% in 2012.

Overall, the implementation of the export levy has still not reached the expected results. The leather industry in Tanzania is still experiencing many problems both upstream and downstream. The implementation of export levy also causes smuggling activities of hides and skins – mainly to countries in the region such as Kenya and Uganda. As a result, the domestic industry suffers from a shortage of raw hides and skins, which results in a lack of investor interest in investing in the leather industry (World footwear, 2018).

07. International comparison

This section will compare the export performance and policies to support the leather industry in Tanzania with other countries, namely China, India, Tunisia, Ethiopia, and Kenya. These countries were chosen because they are categorized as developing countries, have large livestock production, and have a better-finished leather industry than Tanzania.

The five selected countries have large livestock production which has the potential to supply raw hides and skins. China and India are the biggest livestock producers in the world after Brazil (FAO, 2020). Table 9 shows China produced 63 million cattle, 138 million goats, and 164 million sheep in 2018. Meanwhile, India produced 184 million cattle, 132 million goats, and 61 million sheep in 2018. In the Africa region, East Africa is the major livestock production with Ethiopia and Tanzania as the first and second-largest producers. Ethiopia produces 62 million cattle, 33 million goats, and 31 million sheep. Tanzania produced 27 million cattle, 18 million goats, and 7 million sheep.

Table 9: Livestock production in 2018 (head of animals)

Country	Cattle	Goats	Sheeps
Tanzania	27427658	18385463	7782332
China	63417928	138383129	164079093
India	184464035	132749780	61666343
Tunisia	649690	1199383	6494939
Ethiopia	62599736	33048456	31688157
Kenya	19635142	26710775	19485699

Source: Food and Agriculture Organization of the United Nations (2020).

China has the best performance of leather and leather products exports compared to the other five countries (see Table 10). This East Asian country ranked first in the world for exports of articles of leather and leather footwear with a value of US\$33.9 billion and US\$10.7 billion in 2019, respectively. In exports of raw hides and skins, this country ranked sixth at US\$1.6 billion in 2019. India ranked eighth for exports of articles of leather and leather shoes at US\$2.5 billion and US\$1.8 billion in 2019, respectively. India exported US\$544 million of raw hides and skins in 2019, which makes this country ranked 11th. In the African region, Tunisia has the best export performance of finished leather products compared to the other three countries. Tunisia ranks 27th and 39th for exports of leather shoes and articles of leathers.

Table 10: Exports of leather and leather products in 2019

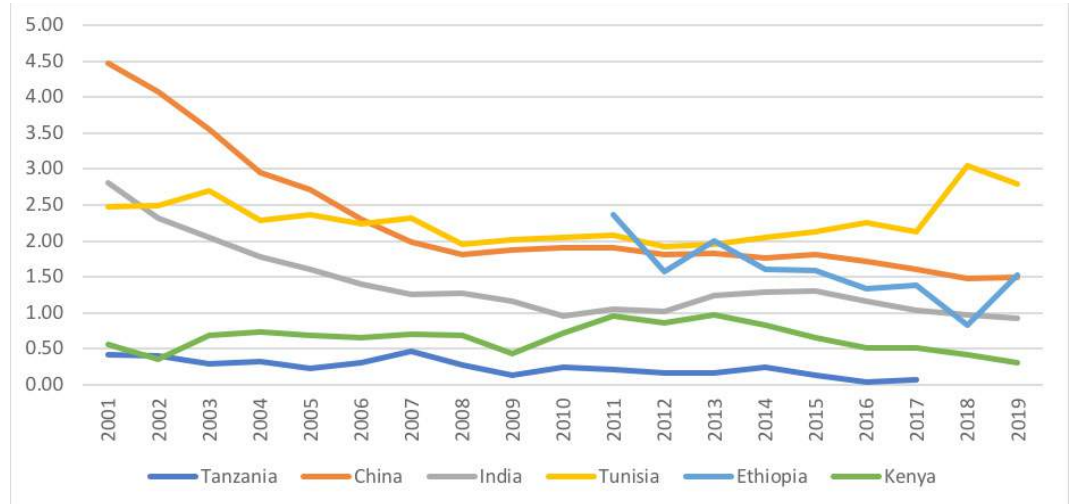
Country	Exports value (US\$ million)	Share in the world export (%)	Country rank
Raw hides, skins, and leather			
Tanzania	11.61	0.0591	76
China	1614.46	8.2197	6
India	554.8	2.8247	11
Tunisia	14.66	0.0746	70
Ethiopia	71.08	0.3619	43
Kenya	30.40	0.1548	58
Articles of leather			
Tanzania	0.14	0.0002	137
China	33993.42	38.3054	1
India	2513.32	2.8321	8
Tunisia	166.75	0.1879	39
Ethiopia	14.52	0.0164	71
Kenya	2.21	0.0025	91
Footwear, upper of leather			
Tanzania	0.06	0.0001	132
China	10719.87	19.1080	1
India	1886.43	3.3625	8
Tunisia	357.42	0.6371	27
Ethiopia	30.62	0.0546	56
Kenya	1.84	0.0033	84

Source: ITC calculation based on the UNITSD (2020).

Figure 18 shows the share of leather exports to total exports in six countries. Leather exports in China and Tunisia have the biggest contribution to total exports. Share of leather exports to GDP in China reached 4.48% of total exports in 2001, then it had a downward trend to 1.50% in 2019. In Tunisia, leather exports contributed to 2.48% of total exports in 2001, reached a peak of 3.04% of total exports in 2018, and fell to 2.79% of total exports in 2019. In Ethiopia, leather exports fluctuated from 2011 to 2019, it fell from 2.37% in 2011 to 1.53% of total exports in 2019. Leather exports in India have decreased sharply from 2.81% in 2001 to 0.92% of total exports in 2019. Tanzania and Kenya had a relatively similar share in leather exports in 2001 at 0.42% and 0.56% of total exports, respectively. However, in subsequent years, Kenya performed better than Tanzania with a peak of 0.97% of total exports in 2003, then

experienced a downward trend to 0.30% in 2019. Share of leather exports in Tanzania reached a peak of 0.46% of total exports in 2007, then experienced a downward trend to 0.08% of total exports in 2017.

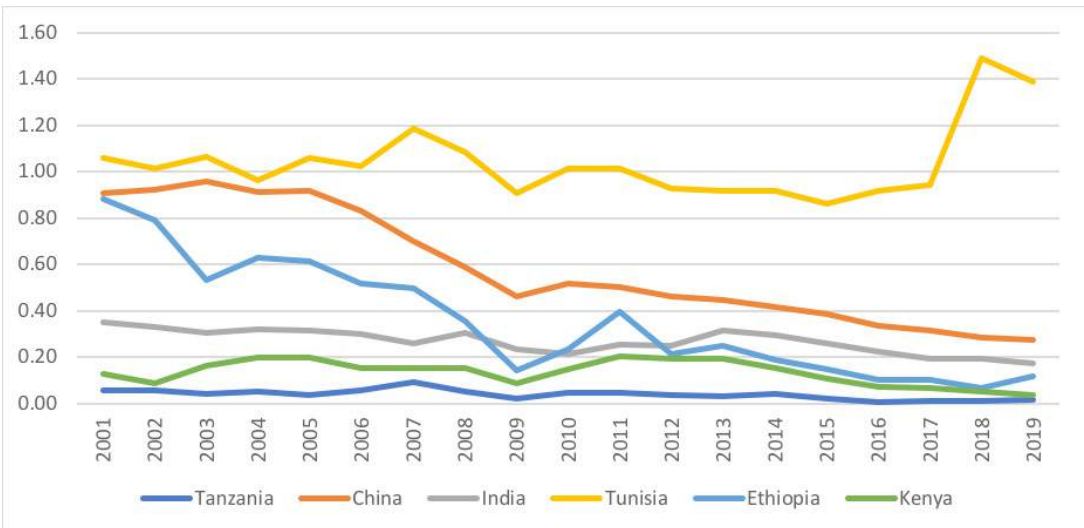
Figure 18: Raw hides & skins, articles of leathers, and footwear (upper of leather) exports, 2001-2019 (% of total exports)



Source: Calculations by the author based on International Trade Centre (ITC) and World Development Indicators (WDI) (2020).

Figure 19 shows the share of leather exports to GDP in six countries. The leather industry in Tunisia has the largest share of GDP compared to the other five countries at 1.06% of GDP in 2001, reached a peak of 1.49% of GDP in 2018, then fell to 1.39% of GDP in 2019. China followed in second place with a share of 0.96% of GDP in 2003, then experienced a downward trend to 0.28% of GDP in 2019. The share of leather exports in Ethiopia experienced a downward and fluctuating trend from 0.88% of GDP in 2001 to 0.12% of GDP in 2019. In India, the share of leather exports to GDP fell slightly from 0.35% of GDP in 2001 to 0.17% of GDP in 2019. In Kenya, the share of leather exports fluctuated between 0.09 and 0.21 of GDP during 2001-2019. Share of leather exports in Tanzania experienced stagnation from 0.06% of GDP in 2001, reached a peak at 0.09% of GDP in 2007, and decreased to 0.04% of GDP in 2019.

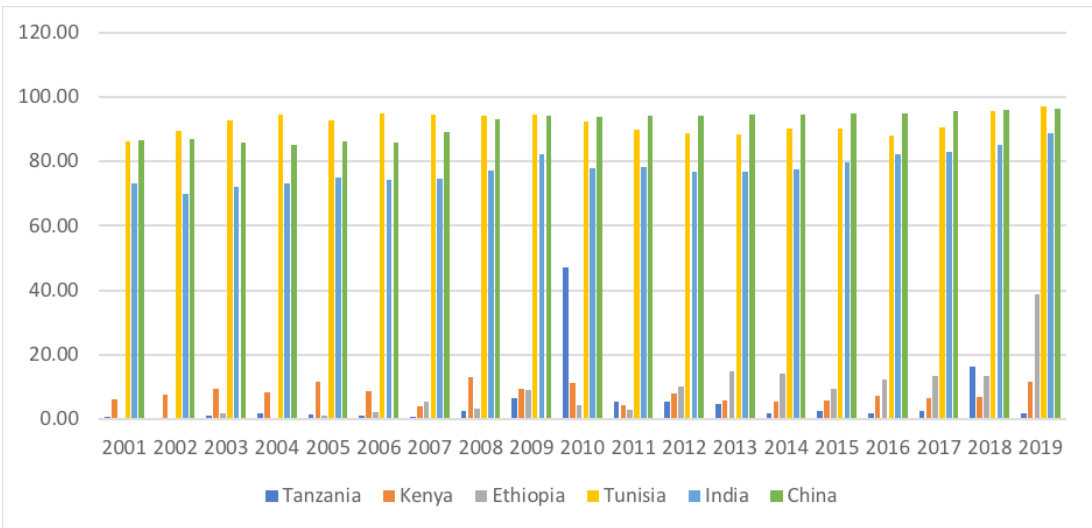
Figure 19: Raw hides & skins, articles of leathers, and footwear (upper of leather) exports, 2001-2019 (% of GDP)



Source: Calculations by the author based on International Trade Centre (ITC) and World Development Indicators (WDI) (2020).

Tunisia and China have the highest value chain performance compared to the other four countries. Finished products dominated leather exports in Tunisia and China at 97% and 96% of total leather exports in 2019 (see Figure 20). The leather industry in India has also moved up to the finished industry, indicated by the share of exports of articles of leather and leather shoes at 88% of total leather exports in 2019, up from 69% of total exports in 2002. Finished leather products in Ethiopia are still below the three countries but it experienced a rapid increase from 0.04% of total leather exports in 2002 to 38% in 2019. A similar trend happened in Kenya, which shares a border with Tanzania. The finished product exports almost doubled from 6.2% of total leather exports in 2001 to 11.74% in 2019.

Figure 20: Share of articles of leathers and leather shoes in total exports, 2001-2019 (%)

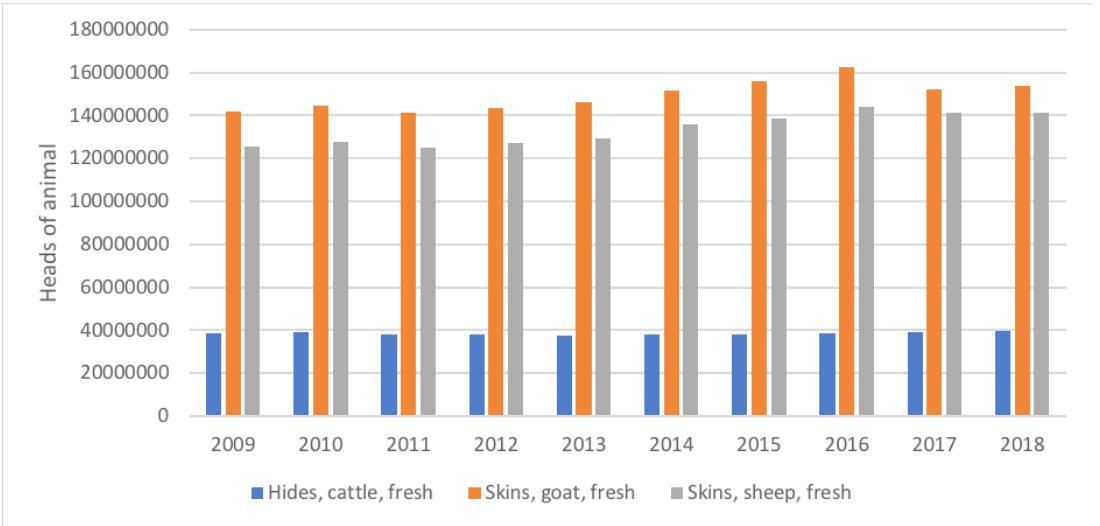


Source: ITC calculation based on the *UNITSD* (2020).

7.1 China

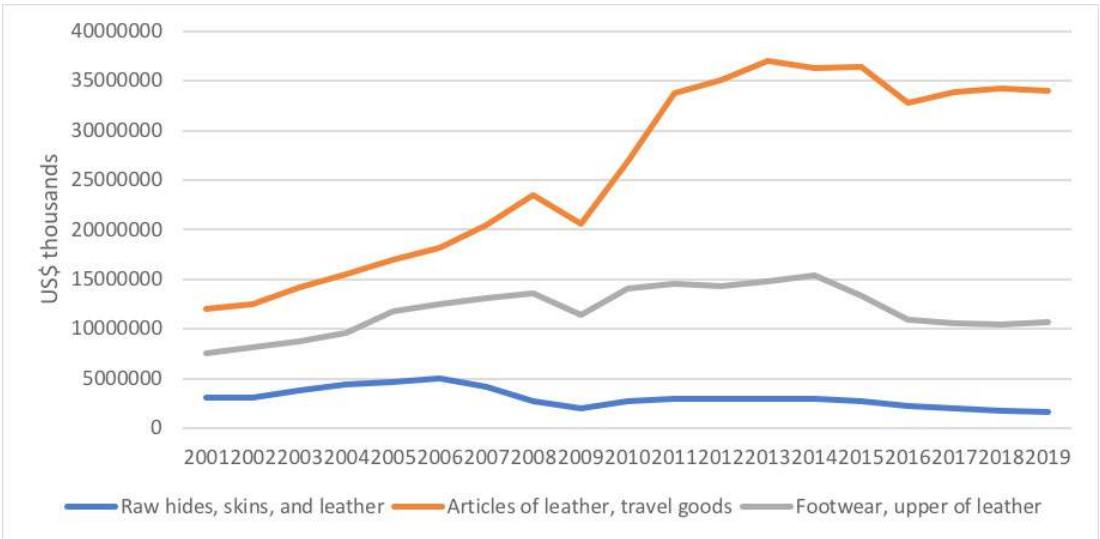
Livestock production in China is the third-largest in the world after Brazil and India, which play a major role in supplying raw materials for the leather industry. In 2018, China produced 39.6 million head/slaughtered cattle hides, 153 million head/slaughtered goat skins, and 141 million head/slaughtered sheep skins (see Figure 21). China is able to utilize this large livestock production to support the leather industry. China has overtaken Italy’s position as the largest leather and leather products exporter in the world since 2000 (Sankar, 2016: 2473). In addition, finished products dominated leather exports by 96% of total leather exports in 2019 (see Figure 22).

Figure 21: Chinese livestock production, 2009–2018 (heads of animals)



Source: Food and Agriculture Organization of the United Nations (2020).

Figure 22: Chinese exports of leather, 2001–2019 (US\$ thousands)



Source: ITC calculation based on the UNITS (2020).

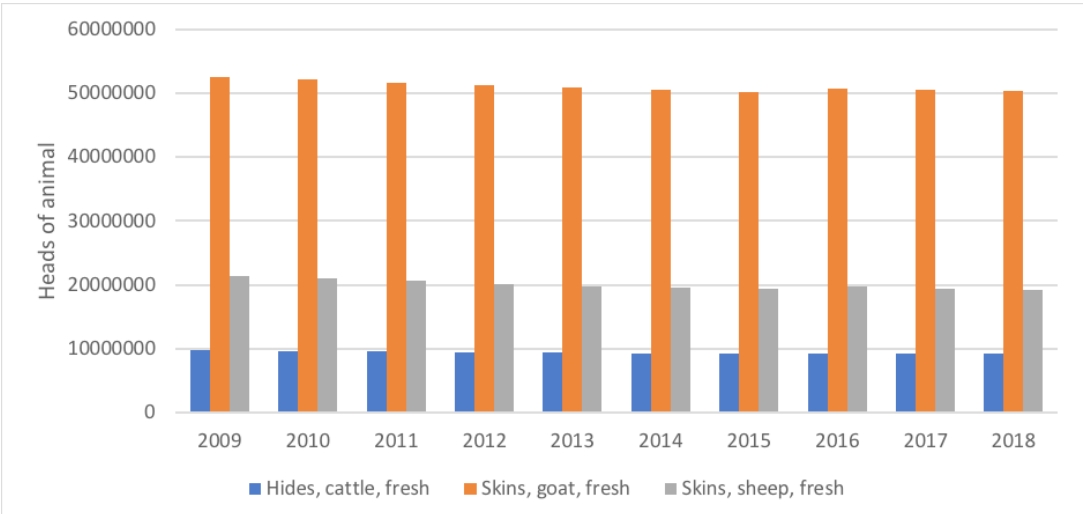
Sankar (2006) stated that the leather industry in China developed rapidly since economic reforms in the 1970s linked to investment from Taiwan, financial support from Hong Kong, support from the Chinese government's policies, and logistics and trade infrastructure. In the 1980s, Taiwan experienced a significant surge in labour costs which made this country shift leather manufacturing production to China (Sankar, 2006). The Chinese government facilitates this shifting by providing a number of tax incentives for joint ventures of Chinese and Taiwanese companies, such as a two-year tax exemption and a 50% discount in income tax in the third year, ease of licensing that can be taken care of in a few days (Sankar, 2006: 2474). These incentives increased the investment value from Taiwan to 80% of the total investment in the footwear sector in the 1990s (Sankar, 2006).

7.2 India

The leather sector in India is one of the oldest and fast-growing industries. According to the Indian Council for Leather Export (2020) data, it has an important role in India's economy with an export value of US\$5.69 billion in 2018-2019, providing jobs for 4.42 million people especially women. The leather value-added industry is also well developed in India. India is the second-largest footwear producer in the world after China with a total production of 2.41 billion pairs in 2017. It is also the second-largest producer for leather garments after Italy with a global market share of 17%, accounting for 8.23% of the total export from leather in 2018-2019 (Indian Council for Leather Export, 2020).

India has a number of advantages that support the leather industry. As the second-largest livestock producer in the world after Brazil, this country has a strong supply of raw materials. In 2018, India produced 9.2 million hides, 50.4 million goat skins, and 191.5 million sheep skins (see Figure 23). In addition, India also has a large number of tanneries with an annual capacity of 3 billion sq.ft. of leathers, accounting for 13% of world leather production (Indian Council for Leather Export, 2020). The leather industry is also supported by trained manpower, as well as adequate research and development (ibid).

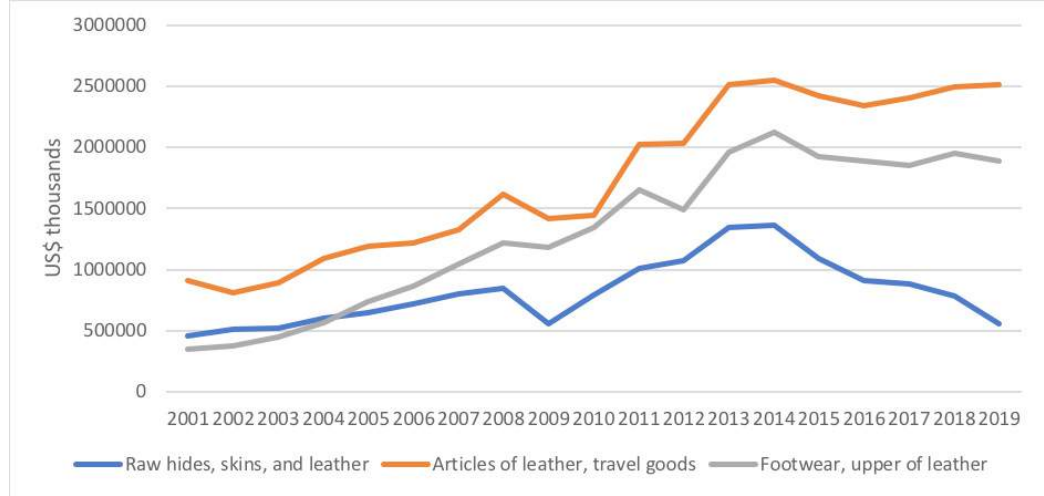
Figure 23: Indian livestock production, 2009–2018 (heads of animals)



Source: Food and Agriculture Organization of the United Nations (2020).

India is able to take advantage of the large livestock production to build a leather industry that contributed to 7.8% of GDP in 2019. Figure 24 shows India exported US\$554 million raw hides and skins, US\$2.5 billion articles of leathers, and US\$1.8 million of leather shoes in 2019. Indian leather exports are dominated by finished products at 96% of total leather exports in 2019.

Figure 24: Indian exports of leather, 2001–2019 (US\$ thousands)



Source: ITC calculation based on the UNITSD (2020).

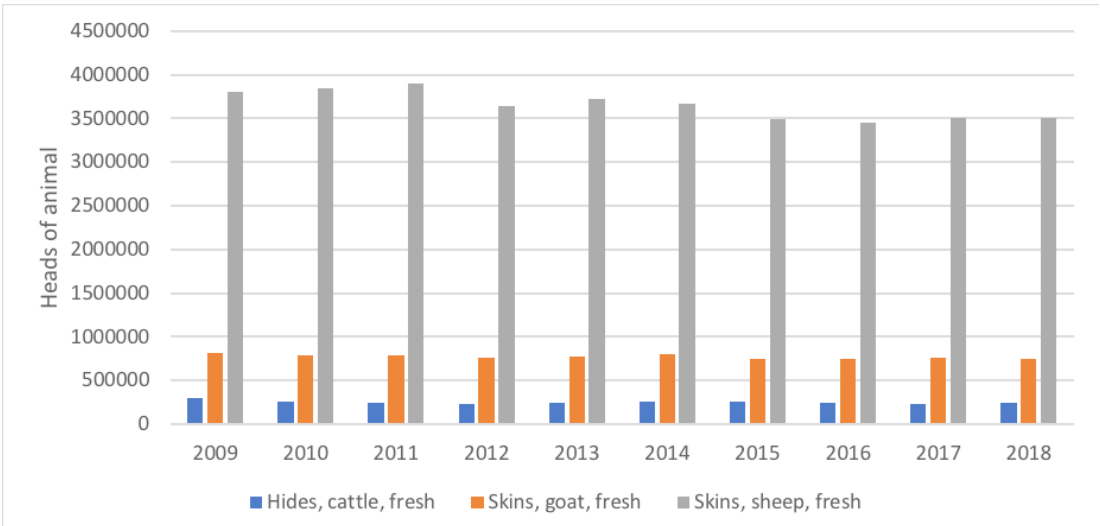
The ban on raw hides and skins exports is one of the important policies, accompanied by a policy to develop the finished leather industry which is divided into two phases (Muchie, 2000). In the first phase (1973-1983), India increased its production capacity to convert raw materials into value-added products. Meanwhile, in the second phase (1984-1993), India focused on export promotion through the formation of the Council for Leather Exports (CLE), a non-profit company under the Ministry of Commerce. CLE facilitates Indian leather exporters to open new markets and expand existing markets (Muchie, 2000).

Muchie (2000) stated that the policy that determined the leather industry as an export thrust sector also has an important role to climb the value chain. This determination made the leather industry receive governance assistance in meeting the needs of labour forces and brought in much-needed foreign exchange. In addition, the role of technology is a key factor in leather industry development. The Indian government established the Central Leather Research Institute (CLRI) to support increasing the value, quality, and environmental attractiveness of this industry. This institution is also supported by a strong annual budget of US\$2.3 million with solid human resources including 639 scientists and technologists (Muchie, 2000). The Indian government has also implemented a strategy to encourage small-medium enterprises via licensing and reservations of products (Sankar, 2006). In 2002, as many as 80% or more of leather shoes came from small-scale producers (Sankar, 2006).

7.3 Tunisia

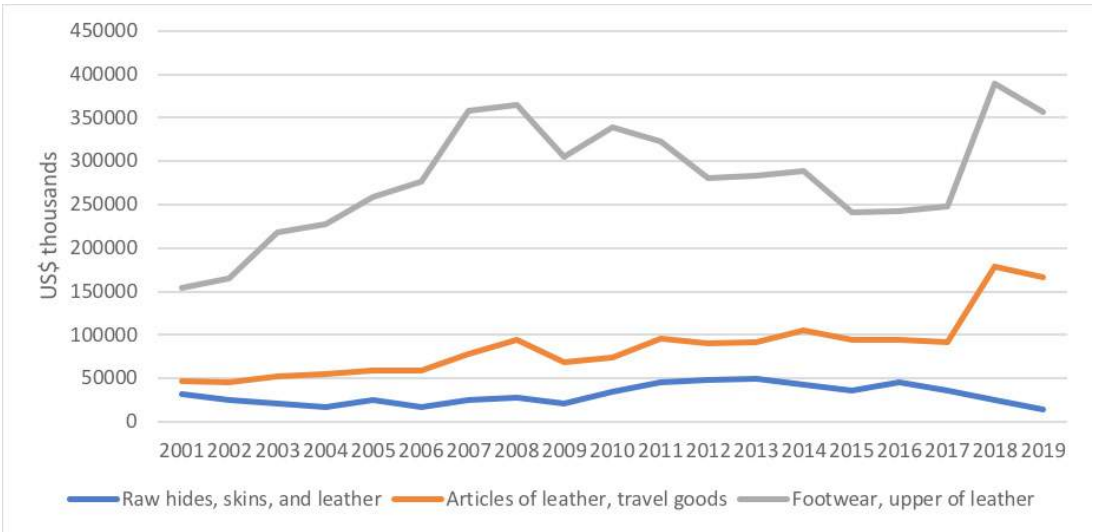
Tunisia does not have a large livestock production compared to the other three African countries, leading to a low ranking in the export of raw hides and skins in 2019. Production of raw hides and skins is also low compared to the other three countries in Africa. Figure 25 shows Tunisia produced 244,145 heads of cattle hides, 751,733 heads of goat skins, and 3.5 million head of skin sheep in 2018. However, Tunisia is able to maximize livestock production to support the leather industry, as indicated by the export of finished leather products from this country which reached US\$524 million or 97% of total exports from the leather sector in 2019 (see Figure 26).

Figure 25: Tunisia's livestock production, 2009–2018 (heads of animals)



Source: Food and Agriculture Organization of the United Nations (2020).

Figure 26: Tunisia's exports of leather, 2001–2019 (US\$ thousands)



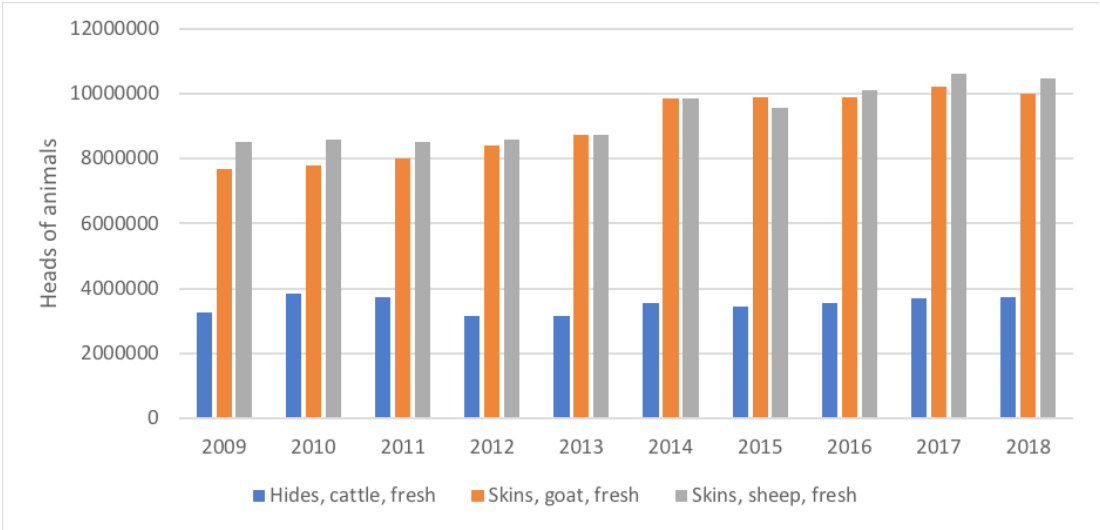
Source: ITC calculation based on the *UNITSD* (2020).

The skilled and qualified labour at a reasonable price plays an important role in supporting the improvement of the value chain in the Tunisian leather industry. This cannot be separated from the existence of a vocational training system consisting of 15 institutions (FIPA-Tunisia, 2020). Furthermore, the Tunisian government has provided a specific upgrading program to 275 leather and footwear companies. The Tunisian Foreign Investment Promotion Agency (2020) claims this program has been able to double the productivity and exports of companies that are involved in this program. In addition, Tunisian governments also established the National Centre of Leather and Footwear (CNCC), which provided services to support the leather industry including Technical assistance and coaching; analysis, testing, and calibration; training; research and development; industrial promotion; information and communication (FIPA-Tunisia, 2020).

7.4 Ethiopia

Based on FAO (2020) data, Ethiopia produced the largest livestock in Africa with 57 million cattle, 30 million sheep, and 23 million goats in 2019. Large livestock production has the potential to supply raw material for the leather industry. In 2018, as shown in Figure 27, Ethiopia produced 3.7 million hides, 100 million goat skins, and 104 million goats skins. The annual collection rate of hides and skins in Ethiopia is also quite high, reaching 10% for cattle, 33% for sheep, and 38% for goats (Alubel Abtew, 2015).

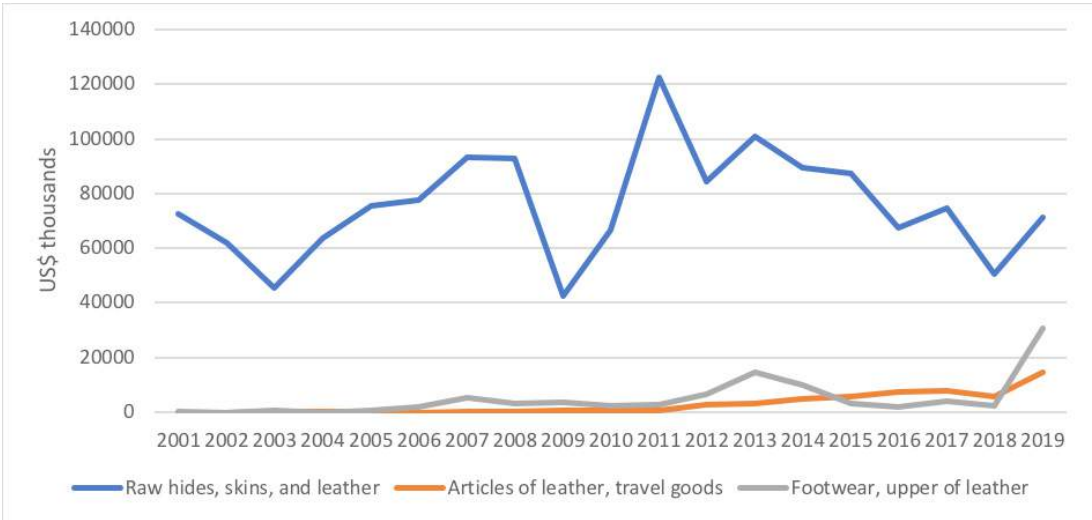
Figure 27: Ethiopia’s livestock production, 2009–2018 (heads of animals)



Source: Food and Agriculture Organization of the United Nations (2020).

The performance of the finished leather industry in Ethiopia is still far below China, India, and Tunisia but it is adequate compared to its peers in Africa. Ethiopia was in the third position in the export of articles of leather and fourth in exports of leather shoes with export values of US\$14 million and US\$31 million, respectively, in 2019 (see Figure 28). However, Ethiopia has not finished climbing the value-added chain, this country still exports raw hides and skins at US\$69 million in 2019.

Figure 28: Ethiopia’s exports of leather, 2001–2019 (US\$ thousands)



Source: ITC calculation based on the *UNITSD* (2020)

The leather industry in Ethiopia experiences the similar challenges experienced by Tanzania, including poor livestock management which results in poor quality raw material supply, low utilization of industry capacity, and a lack of skills and technology. Ethiopia has also implemented a policy to ban exports of raw hides and skins since 1986, but this policy has not been able to grow leather manufacturing in the country (Alubel Abtew, 2015). This ban increased illegal exports to countries that share cross-border to Ethiopia (Alubel Abtew, 2015).

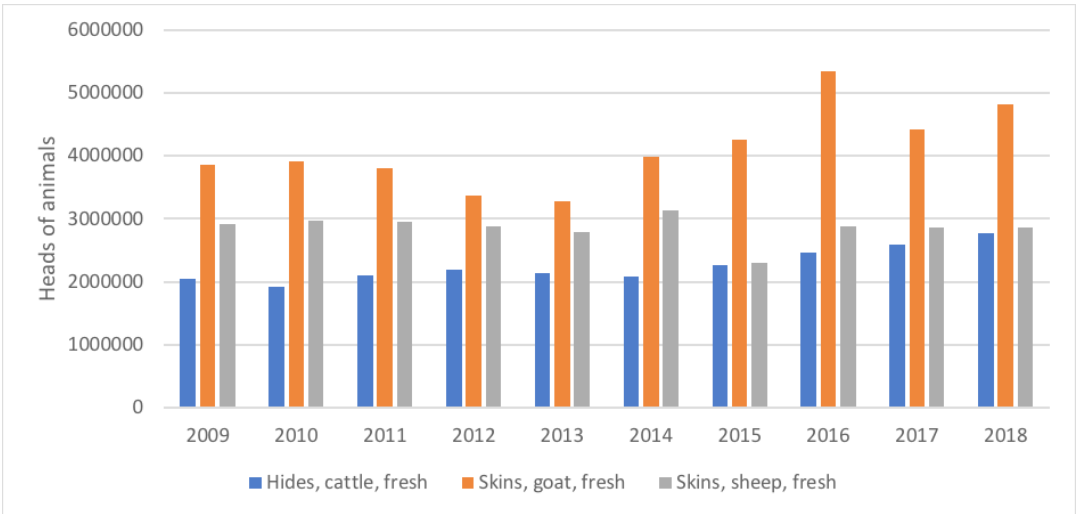
However, the leather industry in Ethiopia performed better than Tanzania. Munchie (2000) stated adoption of new technology is one of the key factors, which includes modernization, technology improvement, organizational change, management training and upgrading, quality control, and standards for product improvement. Brautigam et al (2010) noted that the adoption of new technology in the leather industry in Ethiopia cannot be separated from the policy to suspend the ban on foreign direct investment in the tanneries sector. This research has found evidence of technology transfer from foreign direct investment. European firms in Ethiopia

hire technology experts from China, while local tanneries invite technology experts from India. This has ultimately improved the technology in tanneries. However, the adoption of this technology is limited to large companies. Small tanneries have limited capacity to adopt new technology which resulted in not having the ability to produce high-quality leather (Brautigam et al, 2010). Furthermore, the liberalization policy in the 1990s also encouraged the growth of the leather industry in Ethiopia (Alubel Abtew, 2015).

7.5 Kenya

Kenya also has a large livestock production that has the potential to supply raw material for the leather industry. Figure 29 shows Kenya produced 2.7 million hides, 4.8 million goat skins, and 2.8 million sheep skins in 2018. However, this large number of hide and skins has not yet been utilized for a greater contribution of the leather industry to the economy.

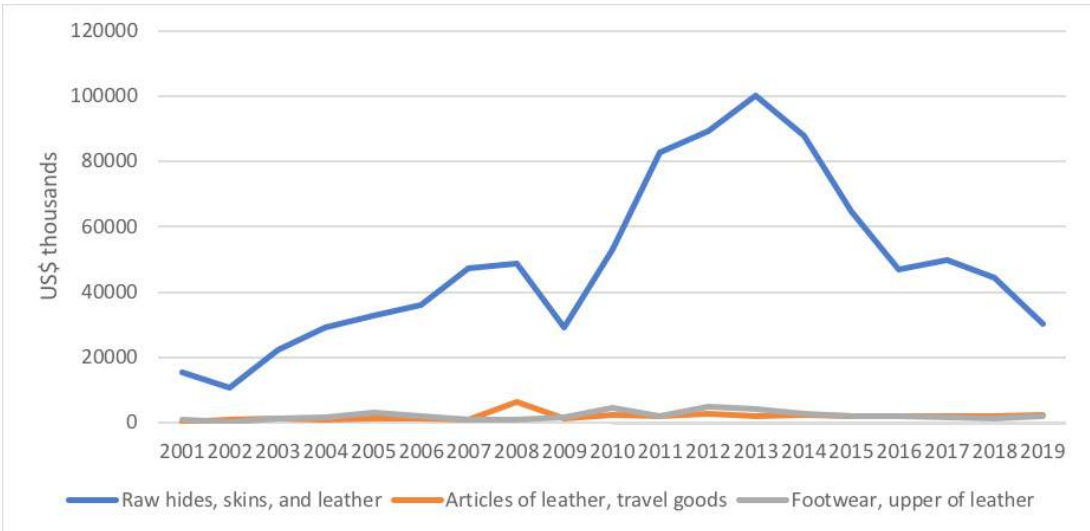
Figure 29: Kenya’s livestock production, 2009–2018 (heads of animals)



Source: Food and Agriculture Organization of the United Nations (2020).

Kenya has the worst performance in both hide and skins and finished product exports compared to other countries. Kenya ranks sixth in Africa for exports of raw hides and skins with a total export value of US\$42 million in 2019 (see Figure 30). For the export of articles of leather and leather shoes, this country ranks seventh and 14th among African countries with an export value of US\$3 million and US\$1 million, respectively, in 2018. However, Kenya’s export performance is better than Tanzania.

Figure 30: Kenya's exports of leather, 2001–2019 (US\$ thousands)



Source: ITC calculation based on the UNITS (2020).

The better performance of the Kenyan leather industry than Tanzania could be due to the greater commitment of Kenyan governments to support this industry, i.e. the establishment of two research institutes to support the leather industry, namely Kenya Industrial Research and Development Institute (KIRDI) and Training and Production Centre for Shoe Industry (TPCSI) (KIRDI, 2020; TPCSI, 2020). The government is also establishing a special economic zone, the Ngoxi Kenya Leather Park at Kinanie, Machakos County, with an investment value of US\$62 million (ITC, 2018). The leather park is expected to attract foreign direct investment in the leather sector. Other policies such as a training Centre and subsidies for workers also have an important role in building this industry (ITC, 2018).

08. Conclusion

The objective of this paper was to investigate the leather value chain in Tanzania. As noted in the introductory part that Tanzania has large livestock production that potentially supplies cheap hide and skins to the leather industry. However, the leather industry in Tanzania is still underutilized. Tanzania needs to develop and improve livestock production, slaughtering facilities, hides and skins collection, tanning facilities, and leather manufacturing in order to move up the value chain. Special attention must be paid in the production of finished products since Tanzania does not have adequate leather manufacturing.

This report identified best practice of leather industry development policies that are helping China, India, Tunisia, Ethiopia, and Kenya to climb the leather value-added chain. Table 11 summarizes the key elements of the best practices in these five countries and shows the common framework underlying policies to strengthen leather industry performance. The policies include better supporting facilities such as tax incentives, leather research institutes, grading institutions, innovation, and dedicated training facilities. These elements could be a vital element of Tanzania's policies for the leather industry aimed at strengthening capacity for effective implementation of export competitiveness and diversification

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