GOVERNMENT OF SINDH

LEATHER
Sector Development Strategy

2023-2027

The Leather Sector Development Strategy is the official document of the Government of Sindh.

For any queries about the Sector Development Strategy, please contact the Department of Livestock and Fisheries.

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The Strategy was developed using the process, methodology and technical assistance of the International Trade Centre (ITC) within the framework of its Trade Development Strategies programme (https://www.intracen.org/trade-strategy/).

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The document benefited particularly from the inputs and guidance provided by Dr Nazeer Hussain Kalhoro, Director General, Livestock and Fisheries Department, Government of Sindh. Technical support was provided by Aishwarya Nahata, Charles Roberge, Muhammad Atif, Rizwan Tariq and Saqib Ali.

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Note for the reader

The Leather Sector Strategy, Sindh, was developed under the Growth for Rural Advancement and Sustainable Progress project through a participatory approach, during which more than 30 industry leaders, small business owners and public sector representatives from Sindh participated in consultations to reach consensus on key sector competitiveness issues and priority activities.

Besides in-depth qualitative and quantitative research and value chain analysis, these consultations were complemented by visits and interviews by the national consultants with provincial firms and institutions. All these efforts guided the Strategy with insights and market intelligence, as well as buyers' requirements in terms of quality standards, packaging, distribution channels, prices, etc.

The Leather Sector Strategy builds on ongoing initiatives in livestock and private sector development and investment, and is aligned with the Sindh Livestock Policy. Equally importantly, the Sector Strategy initiative is complemented by an effort to establish the proper implementation responsibilities among key stakeholders early on to ensure timely implementation of activities, whether by the public sector, private sector or international development agencies. The principal output of this Strategy is an endorsed, coherent and comprehensive document with a five-year detailed Plan of Action and implementation management frameworks.

Acknowledgements

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The document benefited particularly from the inputs and guidance provided by the members of the leather industry sector team that steered the formulation of the Strategy, namely:

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Mr Sheikh Muhammad Imran	Partner	King Leather
Mr Farooq Ahmad	Owner	Madina Oasis Leather
Mr Shoukat Ali	Director	M/S Rasheed Ahmad and Sons
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Mr Rashid Zahur	Senior Vice-President	Noor Leather Garments
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The full list of public and private stakeholders that contributed their precious time to the design of this Strategy are detailed in Annex I: Full list of participants in the public-private consultations.

Contents

LIST OF FIGURES

LIST OF TABLES

LIST OF BOXES

Acronyms

Unless otherwise specified, all references to dollars ($) are to United States dollars, and all mention of Departments refers to Departments of the Government of Sindh.

The following acronyms and abbreviations are used:

CAGR	compound annual growth rate
CIS	Commonwealth of Independent States
DoIC	Department of Industries and Commerce
DoLF	Department of Livestock and Fisheries
EDF	Export Development Fund
EU	European Union
FOB	free on board
H&S	hides and skins
HS	Harmonized System
ISO	International Organization for Standardization
ITC	International Trade Centre
LCA	life cycle assessment
LDC	Livestock Development Council
LWG	Leather Working Group
MoC	Ministry of Commerce
NILT	National Institute of Leather Technology
PGMEA	Pakistan Gloves Manufacturers and Exporters Association
PKR	Pakistani rupee
PLGMEA	Pakistan Leather Garments Manufacturers and Exporters Association
PoA	Plan of Action
PTA	Pakistan Tanners Association
SEDF	Sindh Enterprise Development Fund
SEPA	Sindh Environmental Protection Agency
SLF	Sustainable Leather Foundation
SME	small and medium-sized enterprise
STEVTA	Sindh Technical Education and Vocational Training Authority
SZ	Southern Zone
TDAP	Trade Development Authority of Pakistan

Executive summary

The Sindh Department of Livestock and Fisheries (DoLF) commissioned the design of the Leather Sector Development Strategy, which forms an integral part of the Sindh Livestock Development Policy. This Strategy is a five-year endeavour that was defined through a consultative process between public and private sector stakeholders. Aligned with the Sindh Livestock Policy, the Strategy seeks to build a sustainable, competitive and integrated supply chain for the leather sector in Sindh, focusing on enhancing both quality and production to chart a path for Sindh to become the centre of the leather sector in the country. Achieving this ambitious objective requires active participation of the leather sector, including monitoring progress and mobilizing resources. Additionally, fostering an adequate regulatory environment and creating an enabling framework are necessary conditions for successful implementation of the Plan of Action (PoA).

Importance of the sector in Sindh

The leather industry occupies a place of prominence in view of its potential for employment generation, foreign exchange earnings and export growth. Sindh emerged as one of the centres of Pakistan's leather tanning and leather garment production industry, especially after independence, when several tanneries were established in Karachi. As the primary seaport of the country – thus allowing easy import and export of products – headquarters of trade associations and home of company groups with operations across Pakistan, Karachi was ideally located to specialize in the leather sector. Moreover, backed by a strong raw-material base and a large reservoir of traditionally skilled and competitive labour, the leather industry in Sindh made significant strides until the 1970s.

However, in the last five decades, the sector in Sindh has underperformed in terms of investments, regulations, environmental compliance and export volumes. Meanwhile, tanneries and manufacturing units in Punjab recognized the potential of the sector and advanced on improving the quality of raw materials, creating a stable business climate and investing in technology and skills, ultimately surpassing Sindh and emerging as the most important and trusted leather hub in Pakistan.

Sindh's leather sector competitiveness is based on its cost advantages, derived from its relatively low labour costs, and its comparative disregard for environmental and related social costs.[1] The leather sector in the province receives extensive subsidies, resulting in a failure of government policies and poor enforcement to compel producers to bear the environmental and social costs associated with sustaining the sector, such as water resource management and solid waste disposal.

Today Sindh is a low-cost producer for the domestic market – most of the value-added products are sold in local markets, whereas semi-finished leather is often exported to Punjab for further value addition. Unfortunately, trade in semi-finished leather only generates a marginal trickle-down effect on the rest of the population. Exports from Sindh account for less than a third of Pakistan's total leather exports (approximately $285 million).

Sindh's competitive position in the leather industry has been negatively impacted due to the province's challenging business environment, resulting in the relocation of some tanneries to other provinces. Notably, two of the largest tanneries have ceased operations, and others are considering reducing their production or moving to Punjab.

Key competitiveness issues affecting the sector

Within this context, the diagnostic of the Sindh leather value chain reveals several key underlying trends that prevent the sector from thriving, starting with the overall poor quality of the raw materials produced domestically due to inefficient slaughtering and flaying techniques. Absence of industry knowledge on business management, and lack of coordination and funding among key institutes and associations are further constraints. Lastly, poor environmental compliance, standards and certifications also impede growth and restrict market access.

Despite these setbacks, the leather sector in Sindh has the potential to capitalize growth by adapting to the changing times to create a leather value chain that is technologically, socially and environmentally sustainable. This Strategy identifies the root causes of the key issues affecting the competitiveness of the leather sector

[1] It will become apparent later in the Strategy that while a few tanners have made significant investments to protect the environment, they are the exception.

and endeavours to generate the conditions for a favourable expansion of the industry to contribute to overall socioeconomic development.

Global markets for leather and leather products

The global hides and skins (H&S) and leather sector is a fast-moving and constantly evolving industry. The global leather and leather products market has more than doubled in value in the last two decades and is still expected to grow in the next 10 years. This anticipated growth is due to improved quality and performance in the leather industry. However, the industry has recently experienced challenges from rising interest in leather alternatives and increasing pressure from animal rights groups. To compete in higher-end markets, clean production technologies and traceability of raw materials is becoming a requirement. The evolving dynamics in the global H&S sector have implications for Sindh as well because the province is a significant player in the leather industry. With the changing landscape of the global leather market, Sindh's leather sector will need to adapt to remain competitive.

While historically dominated by European countries, the global shift in competitive advantage to Asia – particularly South Asia – presents an opportunity for Sindh to strengthen its position in the global leather market. By leveraging its existing expertise and resources, Sindh can attract investments, develop its infrastructure and establish itself as a key player in the evolving leather industry.

Environmental concerns are being addressed through processes that use less water and utilize better tanning chemicals more efficiently. This results in lower discharge of water and fewer solids in discharge effluents. Harmful chemicals are being continuously replaced with environmentally friendly substitutes or recycled through the application of new technologies. Effluent treatment plants are becoming more effective and efficient in order to meet desired environmental standards. Simpler and more cost-effective methods are now available. A major development is the technology of extraction and manufacture of saleable products from effluent waste. These changes have led to innovations and adjustments to meet the changing demands of the fashion industry and environmentally conscious consumers.

To capitalize on anticipated growth in the leather industry, stakeholders in Sindh should focus on embracing clean production technologies and implementing traceability systems for raw materials. By ensuring the quality and sustainability of their leather products, Sindh can position itself as a preferred sourcing destination for higher-end markets and meet the demands of environmentally conscious consumers.

Vision and strategic objective

Against this backdrop, the primary focus of the Leather Sector Development Strategy for Sindh is to reinforce the productive capacities of the sector to increase the volume and quality of raw materials produced in line with international market requirements to regain national market share. This will be achieved through capacity building and improved access to market information.

To achieve the development of the leather sector in Sindh, this Strategy provides a roadmap and a PoA geared at achieving the following overall vision:

> ***'Nationally competitive leather renowned for its sustainable practices and innovation'***

The vision statement, agreed upon by all leather value chain stakeholders in Sindh, reflects their priorities, which are centred around creating an industry that is both competitive and sustainable, with the ultimate goal of exporting quality products for the correct value. The Strategy's PoA responds to this vision by comprehensively addressing the sector's constraints and leveraging opportunities. To this end, specific efforts will be made in the following strategic directions.

1. Strengthen the policy and institutional framework for the business development of the sector	2. Enable the sector to improve its productivity and sourcing capacity to better respond to market requirements	3. Enhance market access and induce greater demand for leather and leather products from Sindh
•1.1. Revise key regulations restricting industry growth •1.2. Streamline the capacity of key sector institutions to better respond to the needs of their members	•2.1. Improve the quality and availability of H&S at the field level •2.2. Improve the availability of technically skilled labour in the sector •2.3. Improve financial access for sector operators •2.4. Facilitate increased investment in the sector •2.5. Adapt to reducing the environmental impact throughout the production process	•3.1 Improve the capacity of leather products manufacturers to respond to local and international demand •3.2. Build the market development capacity of the sector

Moving from strategy to action: Implementation management

The Strategy in and of itself is not enough to ensure the industry's sustainable development. Such development will require the coordination of various activities. While the execution of these activities will allow the Strategy's targets to be achieved, success will depend on the ability of stakeholders to plan and coordinate actions in a tactical manner.

Indeed, the Strategy does not belong to any specific institution; rather it is the strategy of the Government of Sindh, and to ensure its success it is necessary to foster an adequate environment and create an appropriate framework for its implementation. Coordinating activities, monitoring progress and mobilizing resources for implementation will be critical to successful achievement of these targets. To that effect, it is recommended that a public-private leather sector subcommittee is established, operationalized and empowered under the Livestock Development Council (LDC) (or similar). The subcommittee will be responsible for overseeing Strategy implementation. It will therefore be important that the capacities and skills of the subcommittee secretariat be sufficient to ensure effective management of Strategy implementation.

As the primary beneficiary of Strategy implementation – through improved productive capacities, reduced costs of doing business, facilitated administrative procedures, enhanced access to finance, etc. – the private sector will need to be directly involved. The private sector clearly expressed during the Strategy design process its willingness to contribute, directly or in partnership with public institutions, to Strategy implementation. The various implementation modalities detailed at the end of this document will determine the success of implementation. However, high-level support from the government, in tandem with strong championship by the private sector, will be the real driver of successful implementation.

Recommended 'quick wins' for Year 1 implementation

The following activities have been identified by stakeholders as having high priority and high return, and are therefore recommended for implementation in the first year. The objective of the activities in the first year is to establish a solid foundation for Strategy implementation.

Policy and regulatory activities

Provincial Assembly of Sindh: Amend the Sindh Local Government Act, 2013, to transfer the functions and powers to provide and maintain public sector slaughterhouses from a government Corporation (Metropolitan Corporation, District Municipal Corporation or Municipal Corporation), Municipal Committee or Town Committee to the Government of Sindh. **Linked to PoA activity 1.1.1.**

Provincial Assembly of Sindh: Amend the Sindh Animals Slaughter Control (Amendment) Act, 2004, and declare DoLF the custodian and implementer of the Act rather than the Local Government Department. As

such, DoLF should prohibit the slaughter of useful animals and regulate the slaughter of other animals in the Province of Sindh. In particular, the responsibility for establishing and licensing slaughterhouses should be transferred to the province. **Linked to PoA activity 1.1.2.**

Institutional framework

Planning and Development Department, Sindh: Increase the financial resources allocated to DoLF to carry out training and capacity building of its staff on good practices for slaughterhouses, including compliance with regulations and guidelines when slaughtering an animal and flaying the skin, especially in the interior regions of Sindh, through training, PC-II (Planning Commission's form for the planning and budgeting of public development projects), or visits to internationally compliant slaughterhouses. **Linked to PoA activity 2.1.2.**

DoLF: Establish a leather advisory subcommittee under the Sindh LDC to guide sector development. The Council and its subcommittees should form a public-private dialogue platform, including academia. **Linked to PoA activity 1.2.1.**

Pakistan Tanners Association (Southern Zone) (PTA (SZ)): Support collectors to establish an H&S collectors association in Sindh to be the principal interlocutor of H&S collectors with the government and PTA. Following this, the association should establish its own licensing programme to issue licences to recognized collectors based on applicants meeting pre-established criteria. These can be administered by PTA or another industry body. Eventually the association should develop a strategy and service portfolio to increase bargaining power, deliver training and have better lobbying capacity. **Linked to PoA activity 1.2.2.**

Sustainability, quality and skills capacity

Investment Department, Sindh: Conduct a feasibility study to assess the viability of establishing a new processing zone in Hyderabad (central place). The study should include an assessment of the availability of raw materials and infrastructure needs. **Linked to PoA activity 2.1.5.**

DoLF: Call for an annual expression of interest by slaughterhouses (public or private) to receive trainings on ‘professional animal slaughtering and zero-defect H&S flaying technology’, including a certificate upon completion. Then reward (in terms of an award during the Pakistan Mega Leather Show) the three best slaughterhouses in the province. PTA, along with DoLF, should organize the training programme by inviting experts who can share their knowledge and skills with the selected slaughterhouses. **Linked to PoA activity 2.1.3.**

Sindh Environmental Protection Agency (SEPA): Complete a full assessment of the environmental impact of tanneries, including effluent treatment of solid and liquid waste (physical, chemical or biological) to define a baseline and forecast a possible reduction of pollution loads of all tanneries in Sindh. **Linked to PoA activity 2.5.1.**

Global trends in the leather sector

The global product basket for leather and leather products is diverse. Leather inputs encompass primary materials – raw H&S, processed leather and chemicals – whereas leather outputs include finished manufactured leather products.

In terms of value, most of the leather produced now comes from large ruminants – bovine/cattle – followed by leather from sheep and goats. Some of the main products from the sector are described in Figure 3. Annex IV gives detailed information about each of these categories at the Harmonized System (HS) six-digit level.

Growing worldwide production of raw hides and skins

Due to increasing demand for meat, the growing livestock sector provides a constant supply of raw materials for the thriving leather industry. According to FAOSTAT data, meat production generated about 15.4 million tons of H&S, with a compound annual growth rate (CAGR) of 2% over the past decade (Food and Agriculture Organization of the United Nations, 2021). The global production of cattle hides was estimated at 11.2 million tons, dominated by China, India and the United States of America, each with a production exceeding 1 million tons. Goat skins production stood at 1.8 million in 2021, dominated by China, alone accounting for 57% of world output. Other large producers include Pakistan (in second place with a 7% share) and India (ranked third globally with a 5% share).

Shifting trends from raw hides and skins to value-added products

Despite the increase in meat production, exports of raw H&S reduced by 7% over the past 10 years, from $7.9 billion to $4.13 billion. One of the main reasons is that countries are increasingly undertaking more value addition domestically (converting raw hides into finished products) before exporting. Secondly, and less in favour of the leather industry, changes in consumer preferences towards vegan alternatives is influencing demand.

In terms of products, the decrease in processed leather is evident in all subcategories of products, regardless of their level of processing (see Figure 1). One the other hand, exports of leather outputs have increased, indicating that the industry globally is moving to higher value addition (discussed below).

With long-established leather processing industries, European Union (EU) Member States remain the largest player in the international trade of processed H&S, accounting for 40% of world exports in 2021. Italy, in particular, is the top exporter in this group, with 24% ($3.4 billion) of total world exports. The leather industry in Italy is shifting from basic articles and production to serving high-fashion customers with sophisticated designs and finishes. Overall, developed countries are focusing more on high-quality fashion products and accessories, capitalizing on fast-fashion turnover and higher market prices (see Figure 2).

Figure 1: World imports of processed hides and skins and leather, in value, 2012–2021 ($ billions)

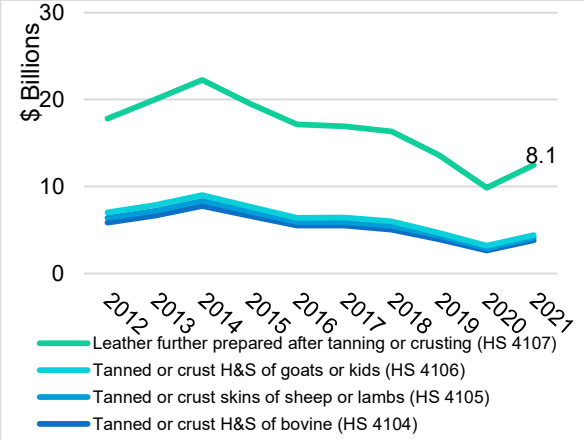
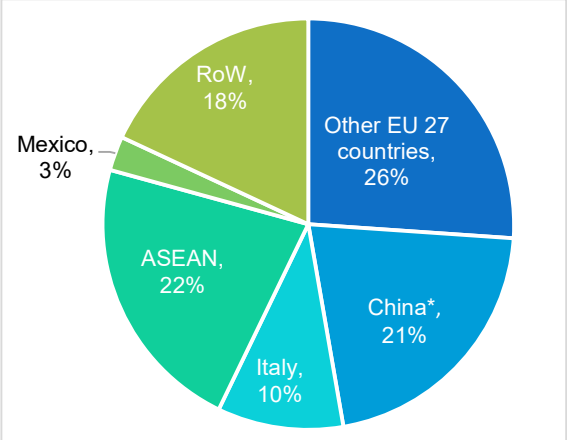


Figure 2: World imports of hides and skins, per country or region (2021)

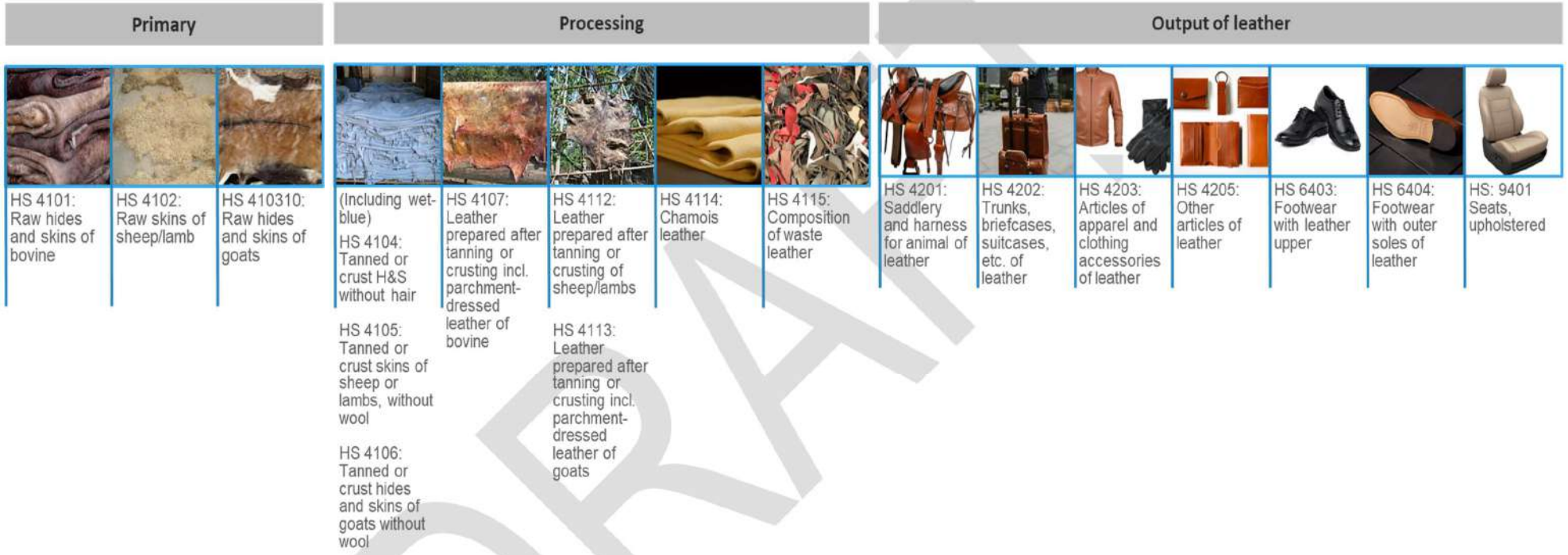


Note: * Including Hong Kong (China) and Chinese Taipei.
Source: ITC calculations based on United Nations Comtrade data, 2021.

The ban on the exports of raw H&S from Pakistan has resulted in the country not being a significant player in the global trade of raw H&S.

Figure 3: An illustrative overview of global leather and leather products by HS codes

Source: ITC.



Box 1: From farm to fashion: The importance of livestock in the leather industry

The livestock sector plays a crucial and indispensable role in the leather industry. It is the foundation upon which the entire industry is built, providing the critical raw materials – H&S – that are transformed into a wide range of leather products, from clothing and footwear to accessories.

The needs of the livestock industry are continually transforming to reflect changes in consumer preferences, technology and the overall economic and political environment. As a result, the leather industry is constantly adjusting its practices to meet these shifting demands. For example, increasing consumer awareness of animal welfare has led to growing demand for leather products that are produced sustainably and ethically. This, in turn, has led to a shift towards better farming practices and greater transparency in the supply chain. Worker safety and environmental protection are also important considerations for the industry, as are the negative impacts of animal rearing for meat on the environment, such as greenhouse gas emissions and water pollution, which are becoming more widely recognized (González et al., 2020).

As a result, demand for leather products has changed over the years, with consumers becoming more aware of the ethical and environmental implications of the industry.

H&S… to use or to lose

Tanners are completely reliant on livestock breeders and meat producers for a consistent supply of raw materials. At the global level, a hide is currently worth between 1% and 2%[2] of the value of the whole animal when slaughtered – this excludes the value of any dairy products, which are worth a lot more in total. It is therefore safe to conclude that animals are not being reared for 1% of their value (Sothmann, 2021).

However, the use of raw H&S materials leads to a lower environmental risk than wasting them, since the latter causes important environmental and sanitary damage. Therefore, allowing this by-product to go to waste would be a poor economic, social and environmental decision. The decision regarding leather is straightforward: either use it or lose it. However, if the leather is not utilized while farmers continue to raise cattle, sheep and goats for meat, countries around the world will incur a significant cost.

A dynamic global supply of leather outputs largely dominated by China

The global leather products industry has undergone a significant transformation, with the centre of competitiveness gradually shifting from Europe to Asia, largely due to lower production and labour costs. This trend has led to China becoming the largest exporter of leather outputs.

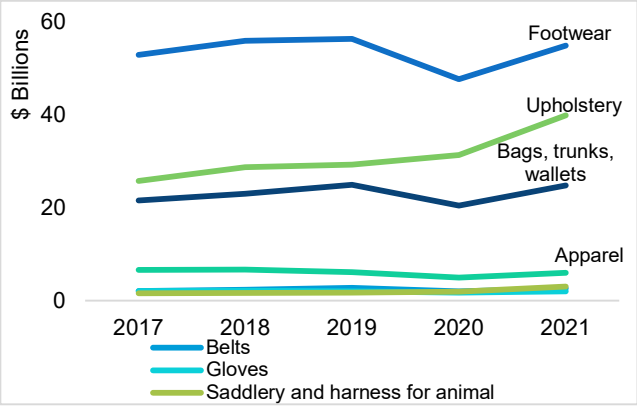
Global exports of leather products (including footwear, upholstery and articles of leather such as garments, gloves and bags classified under HS codes 64, 94 and 42)[3] grew at a CAGR of nearly 4%, rising from $112.4 billion in 2017 to $133 billion in 2021 (United Nations Comtrade, 2021). According to the latest data available for 2021, footwear was the most exported product, worth $54.8 billion (or 41% of market share). This was followed by upholstery, which increased by 17% CAGR over the last five years to capture 30% of market share; and bags, trunks and wallets, which grew at 4% CAGR between 2017 and 2021 to account for 19% or $24.7 billion of exports. The share of gloves and apparel fell by 1% and 2% CAGR respectively in the same period (see Figure 4).

In terms of exporting markets, China dominated, accounting for 30% of global trade in 2021. The EU, including Italy – which held 14% of the market share – collectively claimed a 46% share (Figure 5). Several factors contributed to this growth, such as stable supply of raw materials, changes in environmental regulations that resulted in an increase in consumer demand, and advancements in technology. While the sector witnessed a slump due to the COVID-19 pandemic in 2020 and a contraction in exports of about 13%, a rebound was observed in 2021, with an exported value surpassing pre-pandemic levels, increasing at a rate of 23% year-on-year.

[2] Non-meat products, including H&S, make up what is colloquially referred to as the 'drop credit' in the meat industry. Source: https://leatheruk.org/

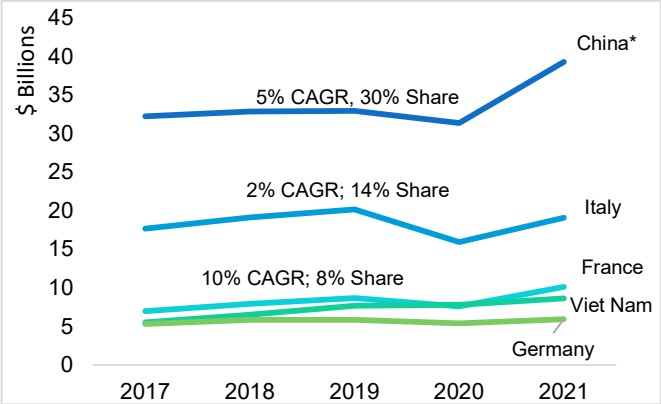
[3] A detailed list of outputs at HS-6 digit level can be found in Annex IV: Identified outputs and inputs of the leather industry.

Figure 4: World exports of final leather products by broad category, 2017–2021 ($ billions)



Source: ITC calculations based on United Nations Comtrade data.

Figure 5: World exports of final leather products, by country, in value, 2017–2021 ($ billions)



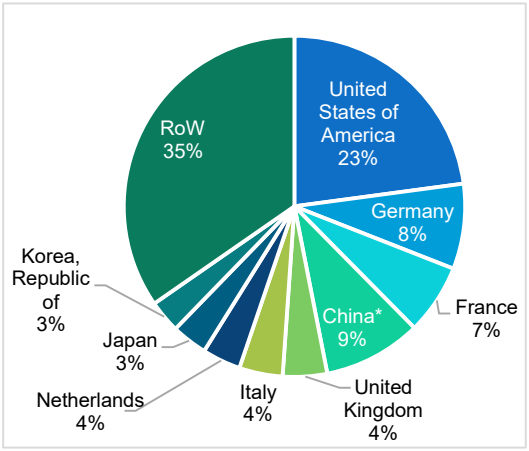
Note: * Including Hong Kong (China) and Chinese Taipei.
Note: Share in 2021.
Source: ITC calculations based on United Nations Comtrade data.

The global leather products market has shown resilience and is expected to expand

The import market is dominated by high-income countries, with EU Member States accounting for 36.2% of global imports of leather goods, followed by the United States at 22.8%. Together, countries from the Organisation for Economic Co-operation and Development represented more than three-quarters of the market share (77.4%) in 2021 (United Nations Comtrade, 2021). China (including Hong Kong (China) and Chinese Taipei) is emerging as a significant player in the global leather market, with imports of leather products increasing one and a half fold from 2012 to 2021 to reach nearly $12 billion in value, representing a market share of around 9.3%. China's imports grew at a rate of 6% CAGR over the period 2017–2021, much above the global growth rate of 3.3% during the same period.

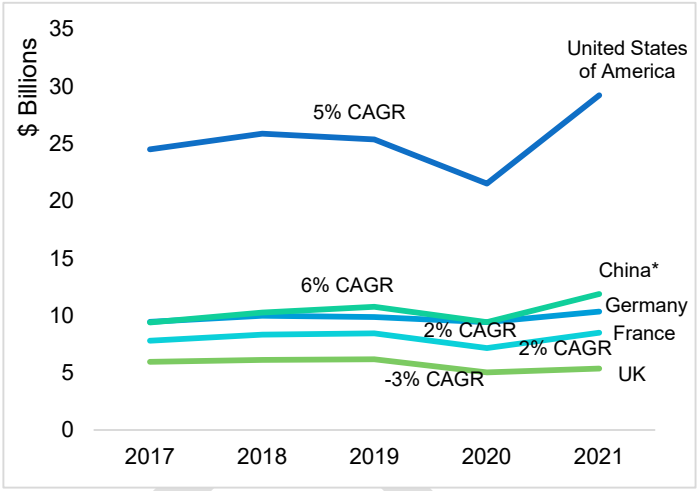
One of the reasons for the increase in imports is because Chinese consumers are becoming increasingly concerned about the environmental impact of their purchases, and they are willing to pay more for leather goods that are manufactured sustainably and take into account environmental factors, quality, animal welfare, social welfare and cost. Furthermore, the rise of luxury leather goods on Chinese e-commerce apps (e.g. Jingdong – JD.com, WeChat) has also resulted in a significant increase in online purchases.

Figure 6: World imports of leather outputs by country, 2021 (% share)



Note: * Including Hong Kong (China) and Chinese Taipei.
Source: ITC calculations based on United Nations Comtrade data.

Figure 7: Top six global importers of leather outputs, 2017–2021 ($ billions)

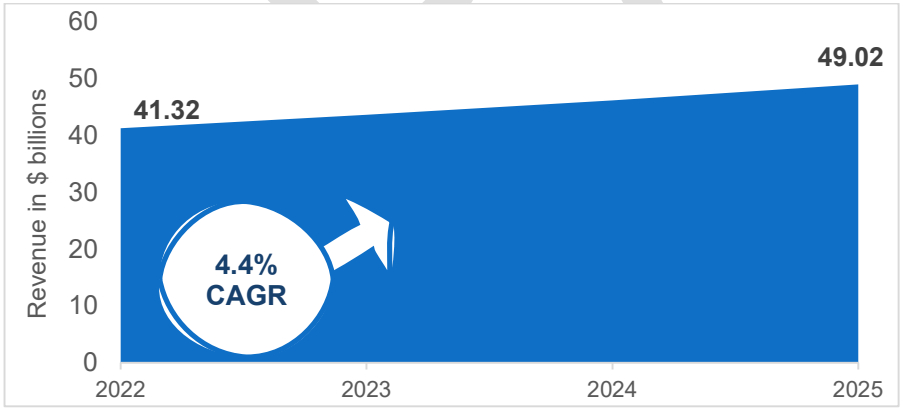


Source: ITC calculations based on United Nations Comtrade data.

Despite growth, several external factors influence demand for leather products

The leather industry faces competition from the growing market for alternative non-leather materials, which challenges the sector to innovate and make advancements in production technology. Demand for synthetic alternatives has seen substantial growth globally. Luxury brands in developed countries – from Chanel and Hermès to Balenciaga – are taking a conscious decision to eliminate leather, and especially unethically sourced leather, to establish themselves as sustainable and carbon-neutral brands. On the other hand, changing consumer preferences and increased concern over the environmental impact of traditional leather is fuelling the ever-growing popularity of cruelty-free, vegan alternatives. Due to these factors, the revenue of the alternate material market worldwide is estimated to reach $49 billion by 2025, up from $41 billion in 2022 (Statista, 2022).

Figure 8: Estimated revenue of the non-animal leather clothing and accessories market worldwide, 2022–2025 ($ billions)



Source: Statista (2022).

Natural resources are also increasingly used as alternatives to complex and adversely affecting chemicals-based production. To address the concerns of chromium used in the leather tanning process, a few brands have shifted to natural leather alternative materials that are more eco-friendly, such as Piñatex, made from cellulose fibres extracted from pineapple leaves, or mycelium 'leather' made from mushrooms.

However, many of these alternatives contain plastic; thus, in reality, plant-based alternatives are typically plant and plastic, which is non-biodegradable. As awareness rises, it is expected that consumers will move from footwear and clothing made primarily from hydrocarbon materials (plastic) to more fashionable and long-lasting products made from leather. High-income countries such as the United States, the United Kingdom of Great

Britain and Northern Ireland, Canada, EU Member States (Germany, France, Italy), and Asia-Pacific countries (Japan, Australia) are leading the trend in alternative materials.

Figure 9: Estimated share of revenue from alternate material by region, 2022 (%)

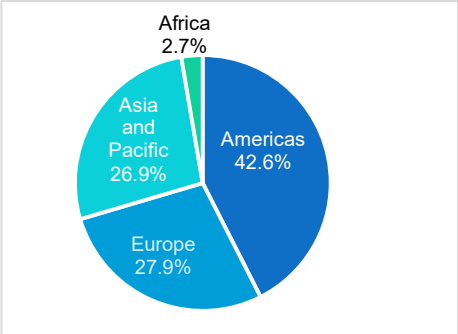
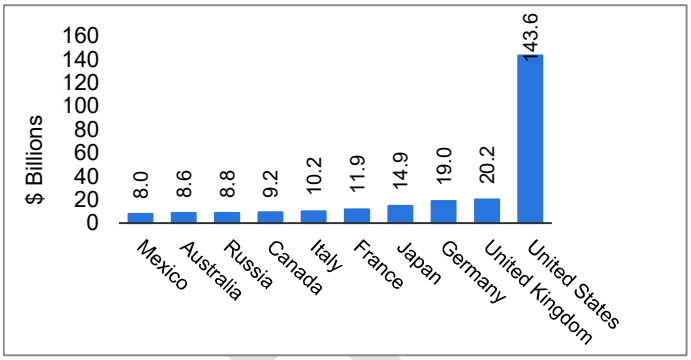


Figure 10: Revenue of the leading countries in global alternate material apparel market 2022 ($ billions)



Source: Statista (2022).

Box 2: An example of a shift in trends in automobiles

BMW group to launch vegan interiors in 2023

The BMW Group plans to launch its first range of vehicles featuring completely vegan interiors in 2023, using materials with leather-like properties. This move comes as part of the BMW Group's goal of reducing CO_2 emissions over the entire life cycle of a vehicle, and in response to the increasing demand for vegan and leather-free interiors, especially in the United States, China and Europe. By replacing raw materials of animal origin with sustainable alternatives, the BMW Group aims to increase sustainability in vehicle production and reduce the proportion of vehicle components that contain traces of animal-origin raw materials to less than 1%.

The introduction of a new surface material for steering wheels will see the proportion of vehicle components containing traces of raw materials of animal origin fall. The new material withstands wear and tear caused by abrasion, perspiration and moisture, and has all the desirable properties of leather. Furthermore, the new steering wheel surface material reduces CO_2 emissions along the value chain by around 85% compared with leather, contributing significantly to CO_2 reduction.

The BMW Group is committed to climate neutrality and a circular economy and is working to achieve these goals through the use of green electricity in production and the supply chain, increased use of secondary and natural raw materials, highly efficient electric motors and combustion engines, and high recycling rates in line with the principles of a circular economy. The BMW Group is also investing in research and development in the field of sustainable materials.

Source: BMW Group (2022).

Box 3: Key takeaways

- The leather and leather products market has more than doubled in value in the last two decades and is expected to continue growing in the next 10 years. Improved quality and performance in the leather industry are driving this growth.
- Developed countries are focusing on high-quality fashion products and accessories, while the centre of competitiveness in the leather industry has shifted from Europe to Asia, primarily due to lower production and labour costs.
- China is the largest exporter of leather products, with footwear as the highest exported product, followed by upholstery, bags, trunks and wallets.
- The industry is facing challenges from rising interest in leather alternatives and increasing pressure from animal rights groups and environmentally conscious consumers.
- Clean production technologies and the traceability of raw materials are becoming requirements to compete in higher-end markets. The industry is addressing environmental concerns through efficient production processes that use less water, better tanning chemicals and environmentally friendly substitutes or recycled materials.

The importance of Sindh's leather industry endures

Endowment of livestock: A solid foundation for developing Sindh's leather sector

To develop a successful strategy for the leather sector in Sindh, it is essential to analyse and understand the province's livestock sector and the current state of the industry. This initial analysis provides a foundation for identifying Sindh's key advantages, particularly in relation to the leather industry.

Pakistan is endowed with the fourth-largest bovine animals inventory in the world (based on 2020 data from the Food and Agriculture Organization of the United Nations). In Sindh, projections from DoLF for 2019 show a cattle population of 12.6 million and a buffalo population of 12.8 million, together accounting for 27% of the national herd. The production of bovine animals is fragmented across the different districts of the province, with Figure 11 indicating the districts with the most significant bovine populations.

The climatic conditions and the availability of forest areas and pastures in valleys make Sindh a promising region for small ruminant farming. The majority of small ruminants are found in Tharparkar District (more than 18% of the provincial population). Other significant districts for goat and sheep farming include Dadu, Jacobabad, Hyderabad, Sanghar and Khairpur, which together made up an estimated 35% of the provincial herd in 2019 (see Figure 12).

Figure 11: Projected population of bovine animals in Sindh, by district, 2019

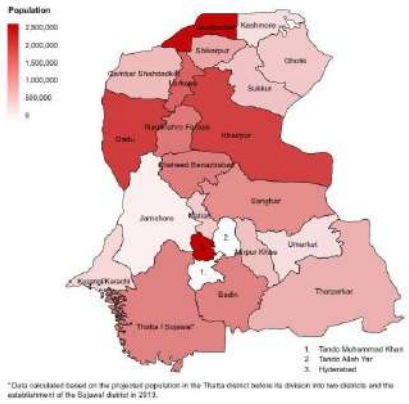
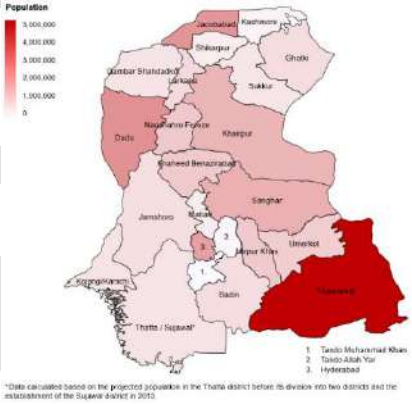


Figure 12: Projected population of small ruminants in Sindh, by district, 2019



Source: ITC calculations based on data from DoLF.

Losing share of the Sindh leather industry

The livestock population in Sindh is an essential contributor to the development of Pakistan's leather sector by providing a reliable source of raw material for production. In part due to this competitive advantage, Sindh became a major centre for leather tanning and garment production, particularly after Pakistan's independence, when several tanneries were established in Karachi. Karachi is not only the primary seaport of the country but also the headquarters of trade associations and home to company groups with operations across Pakistan. This strategic location made Karachi a significant player in the leather sector, with a specialization in processing and exporting sheepskin, goatskin and finished leather products, both locally and internationally.

Over time, advanced technologies and modern facilities were integrated into the tanneries, enabling the production of high-quality leather products for both domestic and international markets. Seeing this as an opportunity for growth, the Province of Punjab started investing in skills training, modernization of equipment and building links with buyers, to eventually emerge as the leading province for the production and processing of leather. This is evident in the in the difference between the industry membership of the two provinces.

According to the PTA website (https://pakistantanners.org/), 213 members are currently registered with the association, of which more than 100 are located in Sindh. Almost all are located in one cluster-sector – 7/A Korangi Industrial Area. As 75% of total exporters are based in Punjab (Awan et al., 2012), the number of Sindh members of value-added associations reduces drastically when compared with Punjab. For instance,

the Pakistan Leather Garments Manufacturers and Exporters Association (PLGMEA)[4] has recorded 271 establishments as its members that produce leather garments: of these, 57 are situated in Korangi. Of the 454 units registered as members with the Pakistan Gloves Manufacturers and Exporters Association (PGMEA),[5] Sialkot, Punjab has 414 of these units, while only 29 are located in Korangi.

To compare price competitiveness between the two provinces, a list of suppliers of leather jackets was compiled based on data available from Fibre2Fashion, a business-to-business online platform. The suppliers of men's leather jackets were chosen if they had an image sample and mentioned the leather was sourced from Pakistan. It is worth noting that there were very few suppliers of men's jackets from Sindh listed online, and therefore, all of them were selected for this comparison. After comparing the list, it was determined that leather jackets from Sialkot generally had lower free on board (FOB) prices than those from Karachi. Figure 13 shows that the lowest price for a leather jacket was $16/piece, which was from Sialkot, while the highest price was $300/piece, which was from Karachi. Table 1 summarizes the key differences in the leather sector between the provinces of Punjab and Sindh.

Figure 13: Examples of Sindh leather jackets at different price points

Note: In addition, it can be observed that the FOB prices of leather jackets vary within each city as well. For example, in Sialkot, the FOB prices range from $16 to $90 per piece. This is due to several factors such as the quality of leather used, the manufacturing process, or the reputation and brand name of the supplier.
Source: Compiled using suppliers' data from Fibre2Fashion (https://www.fibre2fashion.com/).

Table 1: Comparison between the Punjab and Sindh leather industries

Punjab	Sindh
Punjab has at least four leather processing zones – including Lahore, Sialkot, Multan and Kasur – spread across the province.	Sindh only has one processing zone in Karachi, Korangi.
The coverage of the tanneries across the province allows the industry to collect and utilize most of the H&S from slaughterhouses in a timely manner.	Collection of H&S is irregular and often restricted to large cities in Sindh because there is only one processing zone in the province. As a result, many skins are wasted, especially in the interiors of Sindh.
Some 70% of total leather and leather products exports to other countries from Pakistan are from Punjab.	Most of the tanneries in Sindh mostly function as cottage-based industries, producing and selling locally – mostly to Punjab – so there are fewer exports (around 30%) from Sindh.
A pro-business and pro-export mindset has encouraged investments since the 1970s, resulting in Sialkot establishing itself as a renowned brand for western companies due to the trust they have in the leather companies based in the city.	Besides a few large-scale businesses, tanneries in Sindh lack proactive business development. As a result, few invest in updated technology, machinery and skills to improve their exports.

[4] Source: PLGMEA website (www.plgmea.pk/content.php?Id=6).
[5] Source: PGMEA website (https://www.pgmea.org.pk/).

The skills of workers in Punjab are unmatched, mostly due to the transfer of skills over generations and an influx of skilled workers from Karachi.	Availability of the right skills is a major problem in Sindh. Many workers who learned the skills of garment, glove or footwear manufacturing in Karachi moved to Sialkot to either work in tanneries there or start their own tanneries.
There is a big diaspora of people from Punjab abroad, which assists in getting market access and direct-to-consumer orders. Tanneries started establishing businesses abroad to fetch orders (e.g. Leatherfield or Jafferjees).	Enterprises operate out of Karachi and have no links with markets abroad. The market for leather and leather products from Sindh is mostly national, to big cities such as Lahore, Islamabad and Rawalpindi.
In the early 1990s, the industry realized the importance of diversification into footwear. Since then it has developed partnerships with several international agencies to improve footwear production. One such example is the affiliation of the Pakistan Institute of Fashion and Design with L'Ecole de La Chambre Syndicale de La Couture Parisienne. The industry also started developing its raw materials supply. The price of cow leather produced in Kasur is roughly 15%–20% cheaper than what is produced elsewhere in the country. This gives a competitive advantage to companies operating in Punjab.	Some 90% of the footwear sector in Sindh comprises informal cottage industry shoemakers. There are no designated institutes in the province to promote innovation and design in footwear. Moreover, from the supply perspective, due to the low availability of hides in Sindh, manufacturers are dependent on leather sourced from Kasur and Multan in Punjab.

Source: Authors compilation based on secondary desk research and stakeholder consultations.

On the production side, the latest available data from 2018 indicates that tanneries in the SZ annually produce 400 million square feet of leather, of which 260 million square feet (35% of the provincial leather industry) is exported.[6] In the absence of reliable and recent disaggregated data by province, data from PTA estimates that in the fiscal year 2019/20, Pakistan produced 210 million pairs of leather footwear and 19 million units of leather garments and gloves.[7] Estimates from the industry and literature review indicate that by the 1970s, more advanced units equipped with the latest facilities for leather production started to be installed in the Province of Punjab, allowing the country to produce finished leather (APLF, 2022).

The breakdown of leather production determined during the stakeholders' consultation and bilateral in Sindh specifies the following.

1. Key players in the leather industry are vertically integrated leather suppliers who produce leather for their own garment production company or primarily for other local or international garment producers. This segment is estimated to make up around 40% of the industry. Sindh's leather value addition firms mainly supply to European retail chains and brands, and products are produced under private label arrangements. This segment is a sizeable part of the leather industry in Sindh and is focused on the production of high-volume products for export to international markets.
2. Around 55% of the leather sector comprises suppliers of semi-finished and finished leather to the national market, i.e. Punjab (Sialkot, Lahore, Kasur, Multan and Faisalabad) and international furniture and shoe manufacturers, as well as leather garment manufacturers who are competitors of the industry in Pakistan.
3. The remaining small-scale cottage tanneries (around 5%) trade domestically with tanneries in Punjab, mainly supplying wet-blue or processed leather.
4. Few large tanneries from Sindh export finished upholstery output to the European markets. This forms less than 1% of the total exports from the province.

Although Korangi has a significant number of leather-related establishments, particularly in tanning and garment production, Sialkot remains the dominant city in the leather industry, with a larger number of registered units in value added leather segment.

Despite its advantages, the Sindh leather industry will need to adapt to the changing times to create a leather value chain that is socially and environmentally sustainable.

[6] Source: Based on discussions with the industry during the scoping mission.
[7] *Ibid*.

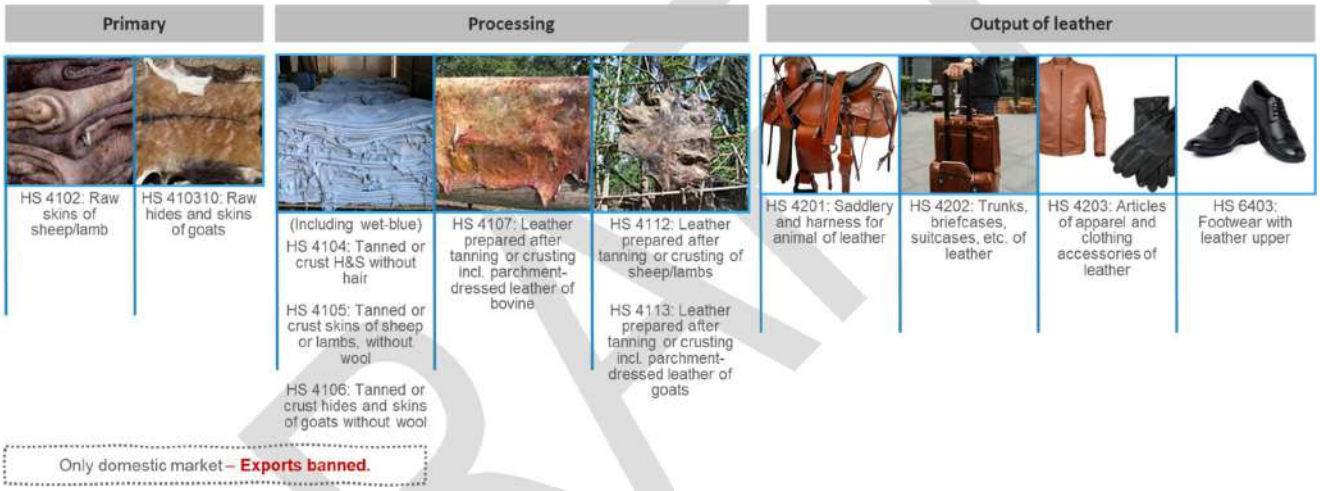
Highly concentrated and narrow production basket

Disclaimer: In the absence of province-specific data, certain parts of the Leather Sector Development Strategy for Sindh rely on national data. Therefore, the accuracy and applicability of the national data to Sindh may vary. The use of province-specific data would have strengthened the analysis and conclusions drawn in this Strategy. Nonetheless, with the support of stakeholder consultations and field visits, the Strategy provides valuable insights in formulating a detailed and targeted PoA for the development of the leather sector in Sindh.

Most of the leather and leather products produced and exported are found under the HS 41 category of leather prepared after tanning or crusting, HS 42 category of articles of leather, HS 64 footwear and such articles, and HS 94 upholstery. Among the selected categories, and as compared to the global products map above, Sindh has limited diversity of products, ranging from gloves and mittens to belts, and saddlery and harnesses. Despite the large bovine population, exports from Sindh are mostly concentrated in gloves of goat and sheep skin. During discussions with the sector team, it was understood that Sindh lacks the specific breeds of large ruminants to supply hides for the purpose of footwear.

The product map in Figure 14 presents some of the main products currently produced and exported by Sindh that form the base for the analysis in this Strategy.

Figure 14: Leather and leather products map in Sindh



Source: ITC.

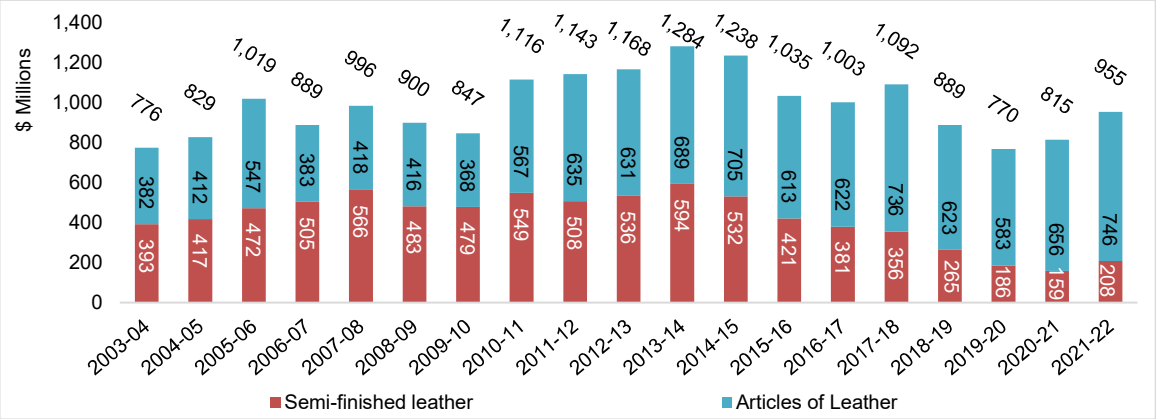
Scope exists to increase exports

The leather industry in Pakistan has historically been a major contributor to the country's foreign exchange earnings, accounting for 10.41% of total export revenue by 1990 (APLF, 2022). However, recent years have seen a decline in revenue from this sector, with a CAGR decrease of almost 3% between 2017/18 and 2021/22, partly due to the COVID-19 pandemic. The leather industry faces several other challenges, including a lack of processing facilities, slow collection of raw H&S, outdated preservation techniques, a shortage of skilled labour, poor environmental accreditation and certification, and expensive imports of the raw materials required for leather garment manufacturing.

Despite these challenges, there is some positive news for the industry. In the last two years, the leather sector has shown steady improvement, with exports exceeding pre-pandemic levels. In 2021/22, exports reached $955 million, a year-on-year increase of 17.52% compared with the previous year. Exports of value-added finished leather products also registered positive growth, with a 13.7% increase (see Figure 15). Incentives – such as a reduction in Customs duty and additional Customs duty in the imports of some tanning chemicals, and exemption of sales tax on local supply of raw H&S – are expected to boost the industry's export growth in the future. However, the continuous devaluation of the Pakistani rupee against the United States dollar remains a concern, as it makes Pakistan's leather products less competitive in the global export market.

In terms of products, there has been a shift towards more value-added leather products such as handbags and garments, with raw H&S accounting for only 20% of the sector's exports (State Bank of Pakistan, 2022). This trend reflects a higher degree of processing in the sector's export portfolio.

Figure 15: Pakistan exports of leather and leather products, in value, 2003/04–2021/22 ($ millions)



Source: State Bank of Pakistan (2021).

Nevertheless, sector performance also hints at a global potential market for Pakistan to diversify into, provided Pakistani producers adapt to global sustainability requirements. Table 2 present the main products exported by Pakistan. Leather gloves are the most exported product, growing at an annual CAGR of 4% and accounting for 35.6% of market share. Pakistan is well known globally for the high quality of its gloves (including fashion gloves, sports gloves and industrial gloves). Articles of leather and apparel follows second, with exports worth $289.9 million, increasing at 1% CAGR.

In the past, the leather industry in Pakistan would export high-quality leather instead of high value-added leather products, which has changed over the years. For instance, although negligible in the share of total exports, and starting from a low base, leather belts and upholstery have been witnessing burgeoning growth, increasing at 15% and 156% CAGR respectively. Regardless of the efforts to increase value added, the country continues to face tough competition from Chinese and Indian leather products because the cost of production is perceived to be relatively high in Pakistan (Awan et al., 2012).

In terms of processed leather, grain split leather of bovine, whether whole or strips, accounts for $104.5 million in exports, diminishing at a CAGR of 11% over the last five years. Similarly, exports of leather of small ruminants (goat and sheep) prepared after tanning or crusting shrank by 18% CAGR over the same period.

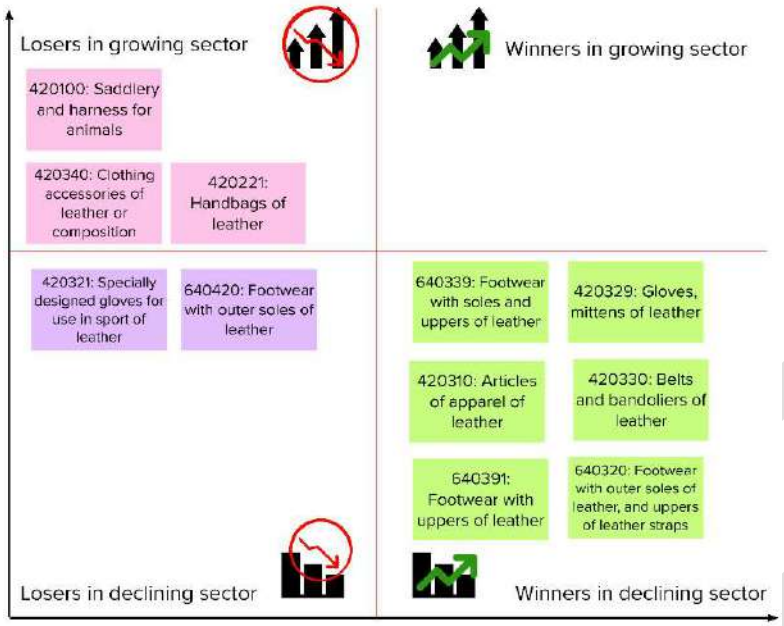
Table 2: Main leather and leather products exported by Pakistan in 2021, in value

Product category	Export value 2017 ($ millions)	Export value 2021 ($ millions)	2021 share in exports (%)	Five-year CAGR, 2017–2021 (%)
Leather gloves	299.1	349.6	35.57	4
Articles of leather and apparel	281.9	289.9	29.50	1
Leather footwear	86.5	113.9	11.59	7
Grain split leather – whole / strips, bovine	165.4	104.5	10.63	-11
Leather prepared after tanning or crusting (goat / sheep)	152.2	67.2	6.84	-18
Leather bags, wallets and trunks	23.5	28.0	2.85	4
Leather belts	7.8	13.8	1.41	15
H&S of bovine in dry state 'crust'	14.2	11.8	1.20	-5
Upholstery	0.0	0.1	0.01	156

Source: ITC calculations based on United Nations Comtrade data.

Figure 16 presents a trade complementarity matrix showing that Pakistan's leather products export concentration is in products for which global demand is low (gloves, belts, apparel and garments), while the country falls behind in exports of products that are in high demand globally (footwear, handbags, saddlery).

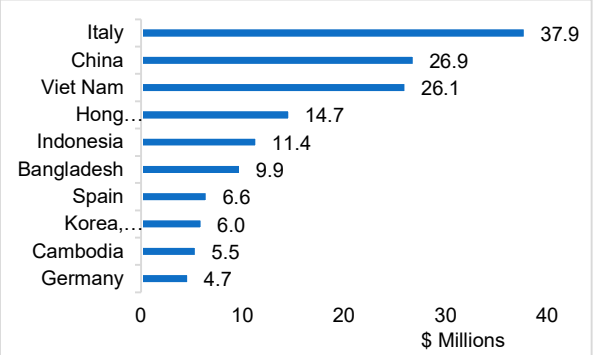
Figure 16: Growth of national supply and international demand for leather products exported from Pakistan, 2021



Source: Author's illustration adapted from ITC calculations based on United Nations Comtrade statistics since January 2020. Classification of the products corresponds with the product map.

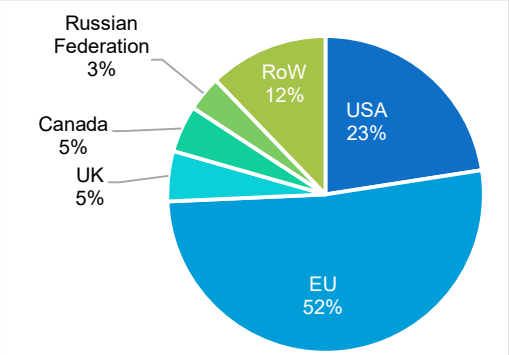
The Generalized System of Preferences Plus status given to Pakistan allows exports from the country to enter the EU market at zero duties for 66% of tariff lines. The European Single Market, with over 440 million consumers, is Pakistan's most important destination for finished leather outputs, and the impact of Generalized System of Preferences Plus status is evident because it has given rise to the country's exports to the EU (Treaty Implementation Cell Pakistan, 2022). In the processed leather segment (worth $186.5 million) , the EU is again the number one market for Pakistan, accounting for 34% of total exports. Disaggregating by countries, Italy is the largest market ($37.9 million), followed by China ($26.9 million) and Viet Nam ($26.1 million) (United Nations Comtrade, 2021). Furthermore, current exports to the EU for all leather products (primary, processed and final output) comprise $411 million, amounting to 52% of total exports, followed by the United States (23% share) and the United Kingdom ($40.9 million) (United Nations Comtrade, 2021).

Figure 17: Pakistan exports of processed leather, by destination, 2021 ($ millions)



Source: ITC calculations based on United Nations Comtrade data

Figure 18: Pakistan exports of leather outputs, by destination, 2021



Source: ITC calculations based on United Nations Comtrade data

Despite the fall in exports in recent years, the leather sector in Sindh has the potential to play a significant role in driving economic growth and job creation in the country. With growing demand for high-quality leather products globally, Sindh has an opportunity to tap into various markets and become a leading player in the industry. However, to maximize its potential, the leather sector must adopt a strategic approach to development

and growth. This Strategy focuses on leveraging the province's strengths in leather production, improving efficiency, and expanding into new and existing markets.

Box 4: Key takeaways and future implications for the leather sector in Sindh

Global trends

- With the growing demand for meat, especially in developing countries, there is likely going to be a continued and steady supply of raw materials for leather. However, changes in consumption will force the meat supply chain to ensure sustainable and ethical sourcing practices. Sindh will lose out in the global market if it does not adapt to these changes.
- Globally, countries are increasingly undertaking more value addition domestically. Sindh should focus on enhancing its processing capabilities and moving up the value chain. By investing in advanced technologies and a skilled workforce, it can strengthen its position in the global leather industry and capture higher-value markets.
- The rising popularity of vegan alternatives and ethical concerns surrounding traditional leather production will continue to pose challenges for the leather sector and Sindh is no different. To remain competitive, the industry must invest in sustainable production practices, communicating the story of traceability and compliance to its consumers.
- Environmental concerns and regulations are becoming more stringent, especially in developed countries, which is the largest market for goods from Pakistan. Sindh's leather sector should focus on adopting sustainable practices and reducing chemical use. Embracing innovation and investing in eco-friendly tanning processes can help the industry stay relevant and meet the demand for environmentally conscious products.
- Driven by lower production and labour costs, globally the leather sector has shifted from Europe to Asia. This presents an opportunity for Sindh to attract foreign investment, expand its manufacturing capabilities and increase its leather exports by offering cost-effective products to international markets.

Domestic trends

- Most tanneries in Sindh operate on a smaller scale and serve local markets. The ongoing modernization efforts, skills training and strong buyer links in Punjab are likely to fuel further growth in that province's leather industry, solidifying Punjab's position as the primary contributor to Pakistan's leather exports. For Sindh to gain a greater market share, the Strategy provides a detailed PoA. Implementing the activities will ensure substantial gains for the leather sector in Sindh. Some of these activities are:
    - Advocating for policy reforms like amending the Sindh Local Government Act, 2013 and the Sindh Animals Slaughter Control (Amendment) Act, 2004 will create a favourable business environment and address sector-specific challenges.
    - Skills development and training. Reviving the National Institute of Leather Technology (NILT) and investing in specialized curricula and training programmes to develop a skilled workforce will ensure the availability of skilled labour in the region.
    - Facilitating access to finance and investment for leather businesses to receive tailored business advisory services and training on preparing bankable business plans to submit to financial institutions will help improve productivity and competitiveness.

Institutional and policy framework

Policy regulation

The first step towards industry development is the government creating an enabling environment by updating the policy and regulatory framework. In the recent federal budget, 2022/23, several industry relief measures were introduced.

Annex II: Policy and regulatory framework presents the measures that have been taken by the government at both provincial and federal level for promotion of the leather industry in the past decade. Exemption from sales tax for the local supply of raw H&S, and reductions in Customs duty and additional Customs duty on 10 tariff lines pertaining to direct and reactive dyes for the leather sector are industrial relief measures for the sector in Pakistan.

Despite the pro-business initiatives taken by the Government of Sindh, the industry still faces challenges, particularly in relation to certain laws that require amendment. The two laws that stand out as the most significant obstacles are:

- Sindh Local Government Act, 2013: This Act grants local governments the authority to oversee functions such as animal slaughter, tanning of H&S and waste disposal. However, with the decentralization of power, the provincial government faces certain challenges, such as coordinating and ensuring consistency across different local governments. Furthermore, ensuring that local governments have the necessary resources and capacity to effectively regulate slaughterhouses poses another significant challenge.
- The Sindh Animals Slaughter Control (Amendment) Act, 2004: The Sindh Animals Slaughter Control (Amendment) Act, 2004 sets regulations and restrictions on the slaughtering of animals in the Province of Sindh, Pakistan. The Act ensures that all slaughterhouses are licensed and meet certain standards for hygiene and sanitation. Currently, the regulation and governance of slaughterhouses in Sindh fall under the purview of local government, as per the Sindh Local Government Act. However, there have been concerns about the effectiveness of local government in regulating the slaughtering industry, and the need for stronger enforcement mechanisms and monitoring.

  As a result, there is a need to amend the Act to bring slaughterhouses under the purview of DoLF. DoLF has the expertise and resources to ensure that the slaughtering industry is regulated in accordance with the standards set by the Act. Bringing slaughterhouses under the purview of DoLF would also help streamline the regulatory process and ensure consistency in the implementation of regulations across the province.

According to the 18th amendment to Pakistan's Constitution passed in 2010, governance of agriculture falls under the jurisdiction of the provincial government. However, this transfer of powers has resulted in a complex and fragmented regulatory system for the livestock sector. This has caused confusion about the applicable laws in the province, and multiple authorities responsible for the sector have added to the institutional complexity without proper coordination. Due to unclear mandates and responsibilities, enforcement of legislative and regulatory frameworks has been weak. Thus, there is a need to simplify and consolidate all legislation related to livestock in Sindh province and enhance institutional coordination and implementation mechanisms.

Institutional ecosystem

The development of the leather sector in Sindh is significantly influenced by trade and investment support institutions, both directly and indirectly. To enhance leather production and promote the development of value-added leather products in the region, it is not enough to rely solely on the internal capacities of industry companies. The role of various public institutions and technical agencies is also crucial in achieving sustainable growth. To ensure long-term success in the sector, participating enterprises require a capable network of government and private sector support institutions on which they can rely.

Several key institutions also play a critical role in developing the leather sector. The most relevant are presented in Table 3, in relation to their level of importance for the sector and capacity to fulfil mandates related to the sector. The categorization is based on the observations of ITC analysts and the sector core team. A detailed overview of trade and investment support institutions and their functions along the value chain can be found in Annex I.

Table 3: Perception of influence versus capacities of trade and investment support institutions

		Capacity of the institution to respond to the needs of the leather sector	
		High	**Low**
Capacity to influence the leather sector	**High**	• Ministry of Commerce (MoC) • Department of Customs • State Bank of Pakistan • Department of Industries and Commerce (DoIC) • Trade Development Authority of Pakistan (TDAP) • SEPA	• PTA (SZ) • PLGMEA • PGMEA • DoLF • NILT • Sindh Technical Education and Vocational Training Authority (STEVTA)
	Low	• Sindh Enterprise Development Fund (SEDF) • Sindh Board of Investment • Small and Medium Enterprises Development Authority • Karachi Chamber of Commerce and Industry • Leather Research Centre • Pakistan Standards and Quality Control Authority	
Federal agency, **provincial agency**, **private sector agency**			

Source: ITC analysts and the sector core team.

The implications of high or low capacity and influence among the institutions in the leather sector can impact Strategy implementation and constrain policymaking and, subsequently, sectoral development. Institutions with higher capacity and influence generally have greater potential to drive positive change and address sector-specific challenges effectively.

High capacity and high influence: When institutions have both high capacity and high influence, it means they have the resources, expertise and authority to effectively respond to the needs of the sector. As a result, these institutions are able to:

- Efficiently formulate and implement policies and reforms
- Address regulatory challenges, facilitate trade and provide financial support to the industry
- Adhere to regulations for environmental sustainability, minimizing negative impacts
- Coordinate and support implementation with various stakeholders.

Low capacity and high influence: Institutions with low capacity but high influence may face significant disconnect between the potential for influence and the ability to address the sector's needs effectively. Although these institutions have high influence over the sector's development, their limited capacity (in terms of resources) hinders their ability to effectively respond to the sector's specific requirements and challenges. This disconnect could result in missed opportunities to meet the sector's requirements, implement necessary reforms and provide adequate support for its growth and development. This highlights the need to strengthen institutional capacity to better respond to the needs of the leather sector and bridge the gap between influence and effective action.

High capacity and low influence: Institutions with high capacity but low influence may face limitations in their ability to directly shape the overall development and direction of the leather sector. While they can provide support and assistance to address immediate needs, their ability to enact broader changes or policies that can drive the sector's growth and competitiveness may be constrained.

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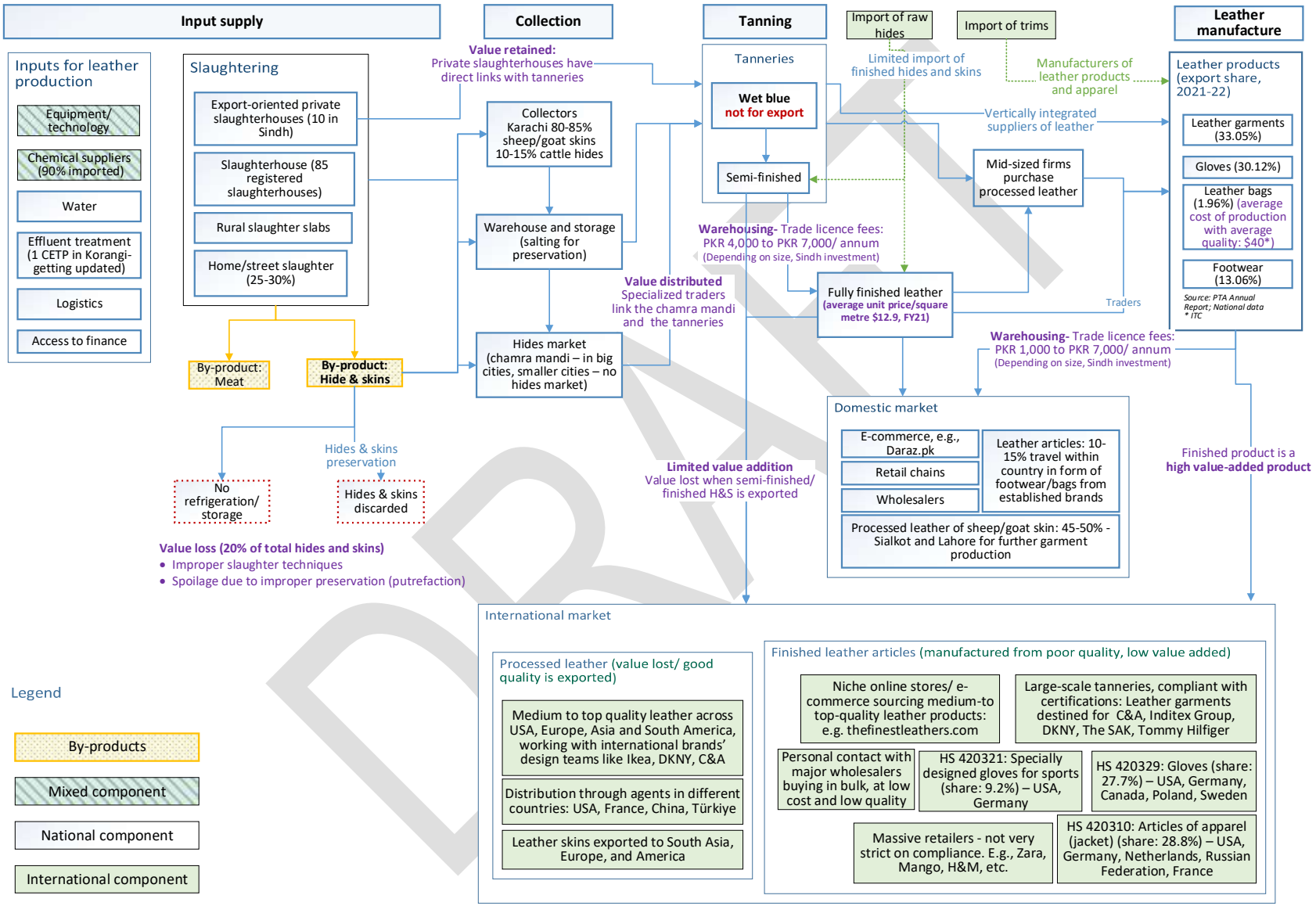
Figure 19: Leather sector value chain



Source: ITC.

Value chain mapping for Sindh

The leather and leather products industry relies on a wide range of inputs, with animal husbandry being a critical upstream activity. Inputs for slaughterhouses and abattoirs typically include storage space and tools. However, in Pakistan, H&S are not adequately conserved after the animals are slaughtered. Tanneries require finance, imported machinery and chemicals, and qualified labour, but there is a shortage of qualified leather technicians. Leather manufacturers need various inputs, including imported garment trims, machinery, design skills and marketing channels.

Animal husbandry: Animal husbandry in Sindh provides a livelihood to approximately 46% of the total population (National Census 2017), with the majority living in rural areas (58%). The animal population includes 19.9 million goats, 12.6 million cattle, 12.8 million buffalo and 5.1 million sheep, making Sindh a significant source of H&S. However, few animals are identified for traceability, which is crucial for the leather sector.

Figure 20: Animal husbandry practices in Sindh

Source: ITC.

Slaughter slabs, slaughterhouses and abattoirs: In Sindh, most slaughter slabs are small and informal, lacking basic equipment and proper hygiene, leading to forced closures by public health authorities. There are currently 77 registered slaughterhouses in the province, of which only 10 are export-oriented – mostly in major urban centres operating at one-quarter of their peak capacity.[8] Most of the government-owned and -operated facilities lack basic equipment such as a carcass-hoisting facility, a lighting system and a regular water supply. The standard of hygiene, and both liquid and solid waste disposal, are poorly managed, leading to several situations where some slaughterhouses have faced forced closure by public health authorities.

Slaughter facilities only provide the service of slaughtering the animal and cleaning the carcass, while the smallholder who raised the animal remains the proprietor of the carcass and the H&S. The smallholder sells the meat and the H&S to the relevant collector / trader (*arthis*), who brings the meat or by-product to the market and, in the case of the H&S, takes care of the conservation / salting. None of the slaughter facilities fleshes the hide or skin or takes the first steps of conservation.

Collection of H&S: H&S in Sindh are mostly traded via collectors (*arthis*) from meat processing facilities, either directly to tanneries in wet salted condition or to warehouses where the H&S are salted and preserved before being taken to the hides market. Export of raw H&S is prohibited, while some are wasted. The reasons for the wastage are manifold – flaying of skins is usually done haphazardly without the use of mechanical flaying devices, leading to flay-cut damage, flay holes, misshapes and damaged grain due to putrefaction. The delay in preserving the H&S of animals after slaughter in Pakistan results in reduced commercial value for tanneries, as the skins are prone to putrefaction due to late preservation. H&S must be preserved through salting or drying within 60–120 minutes after slaughter to maintain their quality.

Semi-processed hides – finished leather sheets: The leather industry in Sindh is supplied mainly by local raw H&S, with some imports from Europe, the United States and Australia. Raw H&S undergo a series of processing steps, including soaking, liming and tanning, resulting in semi-processed wet blue or wet white leather, which can be further processed into crust and finished leather. Sindh's tanneries face challenges in obtaining sufficient high-quality raw H&S, complying with environmental regulations (including EU Registration, Evaluation, Authorization and Restriction of Chemicals regulations) and standards, and meeting buyers' delivery requirements (e.g. grades and timings, etc.). Additionally, the export of unfinished leathers is subject to a 20% duty, making it difficult for tanneries to export.

[8] ITC field visit.

Figure 21: Leather production

Source: ITC images from field visit in Sindh.

Light manufacturing: Sindh has successfully shifted from being a leather exporting province to becoming an exporter of value-added finished leather products, thanks to the government's policy to reduce the export of raw materials. Tanneries that have adopted vertical integration of the value chain components benefit from this policy. Finished leather sheets obtained by tanning and crusting processes are cut and stitched to create different leather products such as garments, footwear, gloves, handbags and suitcases. The major tanneries in Pakistan have their own trading houses for raw material supply and leather goods production plants.

Marketing and exports: The final stage in the value chain involves marketing the products. Almost all these leather products are exported internationally (90%), with very few sold to local markets. Exports of crust are rare, and exports of leather products are usually executed by tanneries that own a manufacturing unit. Pakistan faces close competition with other markets such as China, India, Bangladesh and Viet Nam, and needs to focus on authenticity and quality rather than quantity. European leather and leather goods producers maintain a dominant position in the world market by focusing on these attributes.

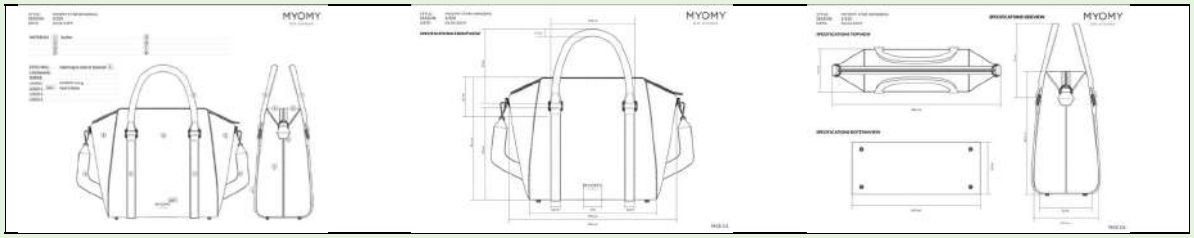
Figure 22: Leather goods production

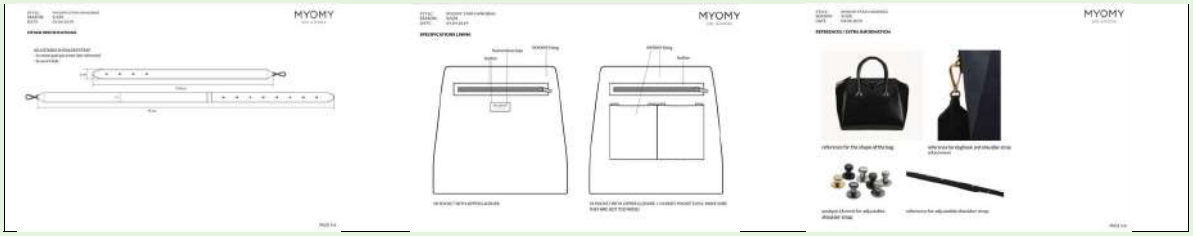
Source: ITC.

Box 5: Competitiveness benchmarking of Pakistani manufacturers

To have direct indications of the competitiveness of Pakistani handbag manufacturers, a request was sent out by email to approximately 50 handbag manufacturers in different countries such as Pakistan, India, Bangladesh, Indonesia, Viet Nam, South Africa, the Netherlands, Brazil and Mexico with a request for a quotation. The quotation was for 100 bags, made of average quality bovine leather. The design of the bag was a realistic design put at the disposal of the ITC international leather consultant by Dutch brand MYoMY (see Figure 23), whose collaboration is herewith acknowledged with gratitude.

Figure 23: MYoMY star leather handbag





Source: MYoMY.

Most of the leather bag manufacturers that were contacted highlighted on their website the sustainability of their products. In addition, all factory floor photos that are published on the respective websites show the employment of female workers. Responses obtained are summarized in **Error! Reference source not found.**. It is necessary to note that, although the design is clear, differences between the quotations to the order of 10%–15% can occur due to the fact that the leather quality that was requested was 'average bovine leather quality'. This can be interpreted differently from supplier to supplier. However, the table gives a reasonable indication of which markets are more competitive than others. Although one can deduce that Pakistan is in an average competitive position, the difference between the quotations received from Karachi and Sialkot is prominent.

Table 4: Bag quotations

Country	Company name	Website	Contact	Quotation
Bangladesh	T.K. Footwear Ltd	www.tkfootwear.com	riff_leather@hotmail.com	$35.50
Bangladesh	Leatherina	www.leatherina.com	leatherina@gmail.com	€25.00 ($30)
Brazil	Pontezeros		ramon@pontozeroacessorios.com.br	BRL 250.00 ($48)
China	Jiarun Leather Goods	www.jiarun-sak.com	sales01@jiarunleathergoods.com	$54.80
China	J.D. Leather Goods	www.jdleathergoods.com	angelwang@jdleathergoods.com	$85.00
Indonesia	Pt. Karya Idaman Bersama	https://pt-karya-idaman-bersama.business.site/#details	marketing2kib@gmail.com	$54.58
Pakistan	Superlative Enterprises (Sialkot)	www.superlative.com.pk	info@superlative.com.pk	$22.00
Pakistan	Chemxs Leather (Karachi)	www.chemxsleather.com	info@chemxsleather.com	PKR 9,000.00 ($57)
South Africa	E. Baronos Leather Manufacturers	www.ebaronosleather.com	info@ebaronosleather.com	ZAR 1,900.00 ($138)
Zimbabwe	Samuneti Leathers	www.samunetileathers.com	samunetileathers@yahoo.com	$65.00
Zimbabwe	Goodhope Leather Products	www.goodhlp.com	gigimatsika@gmail.com	$50.00

Source: Leather and leather goods export strategy designed as part of the National Priority Sectors Export Strategy initiative by TDAP, 2022.

Competitive constraints affecting the value chain

The growth of the leather industry is being hindered by multiple factors that need to be addressed for businesses to access new markets and become more inclusive and sustainable. At the farm level, constraints include access to inputs and livestock rearing practices; while processing is hindered by inconsistent quality and supplies of raw material, outdated technology and the lack of skilled labour. The business environment also faces limitations in terms of regulatory reforms, institutional framework, business support and finance.

Additionally, the leather sector in Sindh has a significant impact on overall development, as it holds potential to create new opportunities for youth and women while ensuring environmental sustainability. To remain realistic and resource-efficient, the Strategy focuses on the most pertinent issues affecting the value chain, which have been determined based on stakeholder consultations.

Supply side

Main constraints	Root causes	PoA links
Insufficient supply of quality raw materials	• Inadequate animal handling at the farm level leads to unusable, putrefied raw H&S • Low collection levels of H&S, especially in the interiors of Sindh, leads to wastage • The lack of pre-processing zones poses a significant challenge to the timely and efficient processing of H&S	**2.1.2., 2.1.5., 2.4.4.**
Limited knowledge of proper cutting and poor flaying techniques at the time of slaughter leads to low-quality raw H&S	• Use of rudimentary tools and manual flaying procedures, limited value given to hides, and lack of monitoring and supervision during the slaughter and post-slaughter handling processes lower the quality of H&S	**1.1.2., 1.2.3.**
Lack of a standardized grading system and a price premium based on quality	• Absence of government regulation, a common framework and clear guidelines for grading H&S	**1.2.1.**
Slow modernization processes in slaughterhouses	• Not enough slaughterhouses with adequate preservation facilities leads to contamination of H&S • Absence of mechanisms (research and financial) to stimulate modernization of operations • Absence of mandatory rules for animal welfare, prevention of cruelty to animals, ante-mortem and post-mortem examination	**1.1.2., 2.1.4.**
Slaughterhouses lack necessary skills and practical knowledge of good slaughterhouse practices	• Lack of training institutes and vocational courses on correct flaying and curing techniques	**2.1.3.**
Leather product manufacturers' ability to increase their production and enhance their product quality is limited	• Limited market and fashion knowledge limits adaptation to emerging trends • Absence of a sector incubator to reduce costs and stimulate innovation • Public procurement is not geared towards stimulation of leather products development	**3.1.1., 3.1.2., 2.4.3.**

Insufficient supply of quality raw materials

Lack of proper training and education among farmers and animal handlers is one of the main reasons for the poor handling of livestock. The raising of animals is primarily to provide milk and thereafter meat. Most farmers are unaware of the value of H&S, which is primarily perceived as a by-product of the meat industry. This lack of knowledge results in improper handling techniques, which causes damage to the H&S, making them unsuitable for use in the leather industry.

Although Sindh has the second-largest herd of bovine animals (25.3 million heads) and small ruminants (25 million) in the country, the industry lacks availability of cattle hides, mostly relying on sheep and goat skins. Moreover, the H&S that are available are of variable quality due to the absence of a standardized grading system. As a result, the shortage of quality H&S affects downstream production areas of the leather industry, forcing manufacturers to import instead.

There are several reasons for the low levels of collection of H&S. Limited transportation infrastructure in rural areas makes it difficult for farmers to transport raw materials to collection points. Farmers also lack knowledge about the benefits of collecting and selling H&S, and there are few incentives for them to do so. Traders mainly collect hides from slaughterhouses in large cities, which creates a significant impact in rural areas where it is more challenging and time-consuming for farmers to access collectors.

Another significant challenge is the season of Qurbani in Eid,[9] during which the handling and transportation of H&S is very poor. As a result, 40%–50% of H&S are wasted. After slaughtering, the H&S are not salted for preservation. These are also sold to the collectors 7–8 hours after being slaughtered, resulting in complete wastage and putrefaction.

Box 6: Qurbani season

Qurbani is a religious sacrifice of 5–8 million animals in three days during the festival of Eid-al-Adha. The resultant H&S are the cheapest raw material for the leather industry, which fulfils 25%–40% of their annual demand. In addition, the quality of H&S of these animals are of premium value (in terms of size and quality), as the animals are reared for the event on special feed and fodder. However, the material is ruined by bad flaying and bad conservation techniques. The festival generates economic activity of approximately PKR 242 billion, including PKR 234 billion through animal sales, PKR 6.54 billion through purchases of hides, and PKR 2.6 billion through allied industries (Business Recorder, 2018).

In the last few years, Eid-al-Adha has been celebrated during the country's peak hot and humid season. The expected average shelf life of H&S at such extreme temperatures and humidity is approximately 2–3 hours. Of the total slaughtered animals, 70% of H&S get putrefied before reaching the tanneries, which is a huge loss for the leather industry as well as for Pakistan. In 2020, both tanners and hide dealers endured an estimated loss of approximately PKR 1.5 billion in the shape of putrefied H&S due to the hot and humid weather, lack of awareness and improper management of raw stock.

The lack of pre-processing zones (raw to wet blue) in Sindh, with only one located in Karachi, poses a significant challenge to the timely and efficient processing of H&S from the interiors of the province. Lack of investment in the establishment of a second processing zone in the province is one of the root causes of this problem. This not only results in a loss of revenue for producers of H&S but also negatively impacts the leather industry in Sindh, which often receives putrefied and damaged skins due to long travel times.

Furthermore, in the absence of a processing facility closer to the interiors of Sindh, H&S are often transported long distances to Karachi with impurities, weakening their strength and reducing the desired tensile strength for special purpose leather such as for shoe uppers and upholstery.

Limited knowledge of proper cutting and poor flaying techniques at the time of slaughter lead to low-quality raw H&S

Multiple factors contribute to this issue. The use of rudimentary tools, manual flaying procedures that continue to be used by slaughterhouses or farmers during the slaying and flaying processes and, more generally, the limited value given to hides by those involved in the slaughter process all contribute to the low number of high-quality H&S available. Moreover, the lack of monitoring or supervision of both slaughter and post-slaughter handling processes results in a lack of improvement of facilities and the ongoing use of poor curing and preservation techniques, further aggravating the quality problem. Furthermore, in many cases, those involved in the slaughter process require assistance in the form of access to information, tools and technologies that would facilitate the work. Some of the equipment includes halal slaughter boxes, pulleys to hoist the carcasses onto rails and proper skinning knives for skinning operations, as well as mechanical de-hiding equipment such as a flaying knife.

Lack of a standardized grading system and a price premium based on quality

There is currently no national guideline on the proper grading of H&S based on factors such as size, thickness, weight, texture, colour and defects. Due to the lack of clear guidelines and sufficient follow-up inspections, there continues to be no uniform grading system in the country. Tanneries individually have experts who are able to determine the quality of H&S, but this is a skill acquired on the job over time and not through formal training. As a result, many tanneries continue to purchase ungraded H&S, and the price of leather may vary widely and inconsistently, making it difficult to establish a premium based on quality.

[9] Eid in the humid season.

There is also a lack of awareness among livestock owners about the value of H&S, and how it could be higher if better care was taken. Without a grading system in place, there are no quality-based price differentials, and so no commercial incentive is generated to ensure better quality of H&S.

Slow modernization processes in slaughterhouses

Not enough slaughterhouses with adequate preservation facilities such as salting leads to contamination of H&S. Utilization of the slaughtering capacity in Sindh is currently below its full potential by more than 25%, which can in large part be attributed to the lack of modern, mechanized facilities in slaughterhouses, and insufficient workforce skills. Despite the existence of government-owned slaughterhouses, the method of slaughtering is conventional, lacking modern facilities such as mechanical slaughtering, cold chain facilities and allied facilities for skins and intestines. Currently there are 77 slaughterhouses in Sindh, of which only 10 are privately owned and export-oriented.

Additionally, one-third of slaughtering occurs in informal and unregulated settings such as homes or on the streets, leading to contamination and poor preservation practices. This affects the number of animals that can be slaughtered and the way in which they are slaughtered. The result is that a lower number of H&S are available than the sector's potential and their quality is poor, which in turn affects the productivity of the tanning industry, which continues to perform at a level much lower than its capacity.

Currently, under the Sindh Local Government Act, 2013, Taluka municipal corporations are mandated to manage local slaughtering facilities. Veterinary authorities find it challenging to implement the law / regulations on premises that come under the purview of the Local Government Department. Poor preservation practices – such as improper storage or handling post-slaughter – expose H&S to harmful elements, leading to discoloration, rot and other defects that negatively impact the quality of the leather. Lack of hygiene during the slaughtering and skinning process also contribute to contamination, reducing the value and marketability of the final leather product.

The Slaughter Control Act, 2004, does not impose a mandatory compulsion on the government to formulate and enforce rules for animal welfare, prevention of cruelty to animals, ante-mortem and post-mortem examination.

Slaughterhouses lack necessary skills and practical knowledge of good slaughterhouse practices, including compliance with regulations and guidelines

In the absence of training institutes and vocational courses, slaughterhouses – especially government-owned and -operated ones – have limited training or experience in pre-slaughter defects and correct flaying and curing techniques. As a result, hides are flayed with faults, making them unusable for tanneries, or preserved with too much or too little salt, resulting in putrefaction or high total dissolved solids chemical discharge.

Leather product manufacturers' ability to increase their production and enhance their product quality is limited

Despite some medium to large-scale manufacturers with cutting-edge technology and certifications, most leather product manufacturers in Sindh are small-scale operations reliant on low-skilled technology. Their limited knowledge of the market or fashion trends, along with their lack of technical expertise, restricts their ability to adapt and take advantage of emerging trends in the leather market. Their inability to expand can be attributed in part to the high costs of manufacturing due to high import tariffs on dyes, chemicals and organic surface-active agents. Approximately 90% of the inputs for production are imported and import tariffs are relatively high, increasing the cost of production and thus leading to high prices for finished products.

Furthermore, international markets demand product certification or firms' registration with an internationally accredited agency or platform to certify that the products and firms involved in trade comply with quality, environmental, health, social and safety standards. Very few manufacturers comply with such standards and thus are unable to tap into markets that are stringent on compliance.

In addition, small and medium-sized enterprises (SMEs) often miss out on orders that require the use of sophisticated machinery or tools due to the absence of a sector-specific incubator that fosters innovation. The lack of such an incubator also limits SMEs' access to knowledge on best practices for growth. Moreover, an incubator could serve as a vital link between tanneries and the leather manufacturing industry, particularly in the footwear and accessories sector, which is currently experiencing minimal exports from Sindh, further constraining local production capacity.

Business environment

Main constraints	Root causes	PoA links
Lack of business management skills, finance and knowledge of quality processes	• Family-run businesses, which dominate the sector, are resistant to change and lack both management skills and technical expertise in quality processes • SMEs face challenges obtaining financing due to lack of tailored business advisory, appropriate collateral and limited skills or expertise in accounting and cash flow management • Financial institutions also struggle with internal systems and infrastructure to support financing of cleaner production	**2.2.1., 2.2.2., 2.2.3., 2.3.1., 2.3.2.**
Limited capacity of key support institutions to stimulate sector development and enforce existing policies, rules and regulations	• Governing institutions lack coordination, resources and management skills • Lack of clarity regarding the mandates, roles and responsibilities of institutions and private sector associations, and weak enforcement of the legislative and regulatory framework • No provincial-level leather council to ensure effective implementation of policies and programmes	**1.1.1., 1.2.2. to 1.2.5.**
High cost of production linked to high costs of inputs, logistics costs and informal costs	• High tariffs on certain imported raw materials have increased the cost of production • Frequent power disruptions exacerbate the industry's lack of competitiveness and ability to meet demand	**2.4.1.**

Lack of business management skills, finance and knowledge of quality processes

The supply-side constraints faced by the sector are compounded by inadequacies in Sindh's business environment, which prevent enterprises from optimizing their operations and expanding their reach along the value chain. Without effective management and quality control, enterprises struggle to deliver high-quality products or services, meet customer demands and improve overall performance. Most of the business in the leather sector in Sindh are family-run and few firms invest in management skills. Often there is a resistance to change, especially among the older generation in managerial positions, who are unwilling to adapt to the modern technology of management. As a result, businesses are failing in Sindh, with many enterprises moving to Punjab instead.

A lack of technical expertise, particularly in regard to quality processes, persists. The leather industry is labour-intensive and most workers learn the relevant skills on the job, which is a huge limitation that prevents competitiveness. Lack of understanding and implementation of quality control procedures also hinder the growth of enterprises, resulting in subpar products, increased costs and damage to the reputation of the sector.

NILT was built with the support of PTA to teach leather processing and technology, thus boosting the sector through quality improvements. However, due to a lack of funds and low human resources capacity, which were the most binding constraints on NILT carrying out its mandate effectively, the organization closed down.

The State Bank of Pakistan introduced Green Banking Guidelines in 2017, to establish a sustainable banking sector (State Bank of Pakistan, 2017) but SMEs in Sindh struggle to obtain financing for cleaner production due to multiple factors. Banks prioritize relationship lending without offering tailored business advisory and financing for SMEs. The need for collateral, information asymmetry, a lack of documentation and limited accounting and cash flow management skills on the part of SMEs all contribute to difficulty obtaining financing. Financial institutions lack the necessary internal systems and infrastructure for cleaner production financing, and managing the risk and return profiles remains a challenge. Definitions and the scope of 'green finance' and 'green / sustainable finance' are also ambiguous.

Limited capacity of key support institutions to stimulate sector development and enforce existing policies, rules and regulations

The institutions governing the sector are poorly coordinated and lack the necessary resources and management skills to implement strategies that support the sector's growth. There is a big issue of multi-governance public sector roles and responsibilities in managing livestock-related activities and functions. Under the Local Government Act, 2013, Taluka municipal corporations are mandated to manage public sector slaughterhouses and cattle markets, whereas government-owned slaughterhouses are inspected by the DoLF veterinarian. Due to this, there are difficulties in implementation and ensuring compliance.

There is a lack of clarity regarding the roles and responsibilities of institutions and private sector associations. PTA has limited capacity to contribute to sector expansion and there is no agency specifically working on leather development in Sindh. For instance, leather-sector-related data collection is not regularly organized or

systematized at the provincial level by any institutions. After the 18th amendment to Pakistan's Constitution, self-governing, legislative and financial autonomy was given to the provincial government. Often the coordination gap between the province and national-level authorities translates into limited coherence and consistency of sector activities.

At the federal level, the Leather Research Centre under the Pakistan Council of Scientific and Industrial Research focuses mostly on leather research. Research on new articles and technology is nominal due to lack of funds and human capacity. The Centre also has a few tannery machines, such as old drums, but lacks modern machinery and equipment.

High cost of production linked to high costs of inputs, logistics costs and informal costs

Leather processors and manufacturers need to import almost all inputs, dyeing agents, chemicals, and accessories and trims such as zips, buckles, lining, buttons and thread (nylon and polyester), resulting in high production costs and lead times, which delays export orders. Moreover, in the absence of international manufacturers in the country, all the inputs need to be imported. The high tariffs placed on certain imported raw materials, combined with complex import protocols, makes local leather manufacturing uncompetitive. This causes further delays because inputs first need to be imported to prepare the samples and then ordered in bulk if the sample is approved by the buyer. Consequently, manufacturers are burdened with extra costs. Since fashion is a dynamic industry, foreign customers and brands value quick response times.

The Karachi leather industry also experiences frequent disruptions of electrical power, requiring the use of internal power generation equipment or the cessation of operations. Small tanneries often suspend operations but larger companies continue to operate on generators, which is costly. The low competitiveness of the leather goods sector is a situation that is not helped by an increase in the availability of low-cost imports, particularly shoes, which has increased tremendously over the years, especially from China.

Table 5: Regional comparison of cost of doing business

Inputs	Pakistan	Bangladesh	India	Viet Nam
Electricity/kwh	$0.09	$0.09	$0.07	$0.07
Regasified liquefied natural gas / gas (industrial captive power) / MMBtu	$5.90	$4.05	$4.06	$6.00
Minimum wages per month	$135.00	$68.00	$115.00	$113.50

Source: Adapted from Pakistan Institute of Development Economics (2021) and Siddiqi (2017).

- Pakistan's leather industry pays 21.1% higher per kWh of electricity compared with India.
- Sindh offers the lowest energy tariffs in the country, where the regasified liquefied natural gas (RLNG) / gas tariff rate is around PKR 930/MMBtu ($5.9/MMBtu). However, Pakistan is far less efficient at generating power from gas than Bangladesh and India, so regasified liquefied natural gas / gas consumption in Pakistan is 45.6% higher per MMBtu compared with Bangladesh, and 45.3% higher than India.
- In comparison to Bangladesh and India, Pakistan pays 98% and 17% higher wages, respectively, to labourers working in the leather industry.

Market entry

Main constraints	Root causes	PoA links
Limited market development capacities of tanneries and leather product manufacturers	• Weak knowledge of market trends and buyer requirements • Lack of dedicated market entry plans	**3.1.1., 3.1.2.**
Low level of product and market diversification owing to insufficient trade information	• Low levels of industry research in line with global market trends and opportunities • Limited partnerships with global research institutes	**3.2.2. to 3.2.7.**
Limited certification hinders access to foreign markets	• Limited number of tanneries certified by the Leather Working Group (LWG) • Lack of proper systems of labelling, packaging, branding and storage, and market promotion facilities	**2.1.1., 3.1.3.**

Limited market development capacities of tanneries and leather product manufacturers

SMEs have limited market penetration (only 30% of Pakistan's exports of leather and leather goods are from Sindh) due to low knowledge and product development. However, large enterprises that comply with quality standards and have LWG certification are able to access large importing markets such as the EU, United Kingdom and North America. Limited market information, access to finance, and new techniques and technology prevent improved production and productivity in the sector. For example, although fashion drives the industry, no Pakistani tanneries produce high-fashion finished leather due to a lack of highly skilled workers and technology.

Moreover, local tanneries and manufacturers continue to face serious challenges from imports and competition from the tanneries in Punjab. In the domestic market, SMEs receive only small orders, which leads to low productivity and high cost of production. The lack of market information and access to new techniques and technology continue to hinder the industry's growth and ability to meet market demand.

The poor business environment and low skills among artisans in design concepts, fashion trends, tools and marketing also contribute to the limited market development capacity of local manufacturers. This is evident in the fact that no foreign company has leather processing or manufacturing operations in Sindh.

Low level of product and market diversification owing to insufficient trade information and limited market entry plans

Leather industry manufacturers in Sindh are disadvantaged because they lack knowledge of new market trends in design, machinery and quality processes. There is also limited trade intelligence and information available on existing markets, especially for finished leather articles that could be exported. Although the leather industry in Sindh is known for providing value for money products, the quality is not always high. Although there are some exceptions, SMEs often struggle to showcase their presence at international trading events, which could provide valuable insights on trends and better promote the local industry for development.

Limited certification hinders access to foreign markets

A lack of comprehensive understanding of certifications and market entry regulations impedes the ability of the sector to make a thorough evaluation of the feasibility of expanding into international markets. Expanding into foreign markets requires navigating a complex web of country-specific regulations and buyer expectations, resulting in increased expenses and time investments for producers. One such mandatory certification for the biggest leather importing countries is LWG. Brands and large distribution chains pay more attention to their supply line being certified by organizations like LWG, the Sustainable Leather Foundation (SLF) or others. In many cases, the lack of certification automatically excludes the supplier from any consideration by the buyer. Currently Pakistan has 35 LWG-certified tanneries, of which 16 are in Sindh. Pakistani companies mainly export to third tier companies / retailers that do not ask for compliance, and to some medium brands that are not very strict on to compliance.

The absence of a national or provincial-level regulatory and institutional set-up for quality testing and certification is seen as a challenge. Maintaining quality standards is crucial not only to ensure consistency of products within the country of origin but also to meet the quality demands of foreign markets.

A key issue underlying many of the above-stated challenges is that producers lack awareness of market requirements and business processes. Lack of experience is compounded by the inability to utilize trade intelligence and price information. The problem is further complicated by the slaughterhouse mentality and motivation: many slaughterhouses see it as their job to slaughter the animal; they consider whatever comes after this to be someone else's task. This has resulted in an over-reliance on middlemen.

Development goals

Main constraints	Root causes	PoA links
Difficulty managing the common effluent treatment plant effectively to reduce environmental damage is a major challenge for the industry	• Lack of environmental compliance poses significant risks to the industry • Solid waste dumping is a major health hazard to the local population	**2.4.2.**
Water consumption and water pollution are key environmental challenges for the industry	• High water consumption in pre-tanning and post-tanning processes • The industry relies on harmful processes such as using chrome and the discharge of effluents without treatment, thus contaminating water bodies and land	**2.2.1. to 2.2.4.**

Difficulty implementing the environmental policy framework effectively	• Laws and regulations exist to promote cleaner production but are not comprehensive nor effectively enforced • Adherence to environmental standards is limited and wastewater management is poor	**2.5.1 to 2.5.4.**
Limited knowledge of environmentally friendly tanning techniques	• Limited training in and awareness of environmentally friendly tanning processes • The dominance of chrome tanning, compounded by the higher costs of alternative methods and a lack of sustainable financing	**2.3.1., 3.2.1.**
Absence of gender equality in the sector	• No female workforce in the professional leather production and manufacturing levels due to cultural barriers and patriarchy.	**2.2.4.**

The high level of pollution and the poor standard of waste management in Sindh is evident throughout the leather value chain, from slaughterhouse to collection all the way through to the leather manufacturing process. The majority of slaughter facilities have limited equipment and poor hygienic conditions that are exacerbated by a lack of running water. Moreover, the disposal of solid and liquid waste does not meet environmental regulations.

Difficulty managing the common effluent treatment plant effectively to reduce environmental damage is a major challenge for the leather industry

The common effluent treatment plant in Korangi is owned and operated by the Environmental Society of the PTA (SZ). MoC, the Export Development Fund (EDF) and TDAP funded its establishment to handle the high level of pollution caused by the tanneries operating in sectors 7-A and 15 in the Korangi Industrial Area (Government of Sindh Planning and Development Department, 2007). The plant uses various treatment methods – including physical, chemical and biological processes – to treat the effluent generated by the tanneries and to reduce its harmful effects on the environment and human health.

However, lack of monitoring by SEPA poses a significant threat to the purpose of the plant. Still, 90% of smaller-scale tanneries are completely unaware of environmental quality standards. In the past the treatment plant was not fully functional; however, in recent years it has resumed operating at full capacity. The tanneries with LWG certification pay an extra fee for the continuation of the plant. This fee is very high, so some tanneries – especially those that need the plant to maintain the LWG certification – are paying high amounts, while others have not paid or underpay the running cost of operating.

The treatment facility was examined in a study initiated by the United States Agency for International Development (2018). By walking along the channels feeding into the plant throughout Korangi Creek Industrial Park, the authors of the study found that many of the open trenches were full of dirt and garbage, calling into question the reliability of the system that carries effluent to be treated. In addition, a common practice at Korangi is to use prohibited chemicals in the treatment of raw skins, which the common effluent treatment plant is unable to treat.

The situation in Korangi concerning solid waste is as serious as that of tannery effluent. Companies dump solid waste outside their gates or in other locations. The problem is exacerbated by lenient enforcement by the municipality, limited alternative waste disposal sites, and the absence of pressure from industry associations and neighbouring companies. Apart from the unsightly appearance of the area, the dumping of solid waste in this manner presents major health hazards to the local population.

Water consumption and water pollution are key environmental challenges for the leather industry

Water consumption is greatest in pre-tanning but significant amounts of water are also consumed in post-tanning processes. In the course of processing hides into leather, roughly 90–150 litres of water are used per one kilogram of converted leather. However, this varies with the process used (see Table 6).

Wastewater effluent discharges from tanneries are voluminous, highly coloured and contain a heavy sediment load including toxic metallic compounds, chemicals, biologically oxidizable materials and large quantities of putrefying suspended matter. In most instances, tannery effluents are discharged into water bodies or open land with no treatment, resulting in contamination of both surface and subsurface water. Research has been conducted and published regarding the characterization and pollution levels of tannery effluents, sludge and solid waste in Sindh province, as well as the quality of well water in the areas around tanneries in Karachi (Khwaja, 2000).

Table 6: Volume of water used for different processes

Sl. no.	Type of process	Volume of water used

1.	Raw to finish	40–45 l/kg of raw weight
2.	Raw to wet blue	25–30 l/kg of raw weight
3.	Wet blue to finish	20–25 l/kg of wet-blue weight
4.	Crust to finish	10–15 l/kg of crust weight

Source: Ramanujam et al. (2009).

Although the tanning industry has been, and continues to be, under increasing pressure to comply with environmental management laws that govern proper effluent treatment and promote the use of cleaner production technologies, the production of leather continues to rely on the use of chrome, which is extremely harmful if discharged into the environment. The production of leather also generates environmental concerns for several other reasons, including the issue of the salts used for preservation getting into rivers, lakes and/or groundwater, which makes the water unsuitable for drinking or other uses, as well as the excessive quantity of water used during leather production. The difficult application of wastewater management regulations is resulting in tanneries continuing to discharge effluents and wastewater to the detriment of the environment.

Difficulty implementing the environmental policy framework effectively

Although there are several laws and regulations that can help promote cleaner production in the leather tanning industry, they are not as effective or comprehensive as they could be. Insufficient coordination between responsible institutions is one factor and inefficient provincial implementation is another. At the provincial level, there is limited capacity for supervisory bodies such as SEPA to monitor compliance with environmental protection laws and standards, mostly due to limited human resource capacity and lack of skills.

Owing to this lack of capacity of supervisory bodies, most of the leather industry operates with limited adherence to the standards set by the Sindh Environmental Protection Act. Moreover, slaughters are not properly controlled or monitored, poor wastewater management systems remain in place and effluent treatment is weakly regulated, regardless of existing environmental standards. The result is harmful discharges released into the surrounding environment, which of course contributes further to local pollution.

Limited knowledge of environmentally friendly tanning techniques

The limited training offered or available to the smaller tanneries and leather product manufacturers that dominate the leather sector in Sindh has resulted in a general lack of knowledge about newer, more environmentally friendly tanning processes. The international leather industry has increasingly come under pressure to improve its practices and have a lower impact on the environment, in particular regarding levels of air, water and ground pollution, as well as health costs for the workers involved. Therefore, while the leather market is experiencing global growth, stricter environmental standards are becoming more expected as the norm.

A major challenge is the use of chrome, which in Sindh – as in most of the rest of the world – continues to dominate the tanning sector. Chrome is cost-effective but is also one of the most toxic tanning methods. The lack of awareness of other methods, such as vegetable tanning, is compounded by the higher costs of these methods, and exacerbated by the higher production costs of the leather sector and the lack of access to sustainable financing.

Absence of gender equality in the sector

In rural areas, female labour is common at family level to tend to animals, such as herding and milking. However, in the professional animal husbandry, food and leather production value chain there is no female workforce. Similarly, at the transport level or the processing level (in the tanneries) there are no female employees. In the past, at the level of production of leather goods, there was an important proportion of female labour, which has steadily reduced due to cultural barriers and a patriarchal society. This is a serious obstacle at end buyer level where female buyers in developed countries pay attention to gender equality.

The way forward: Strategic orientations and market opportunities

The preceding section of the Strategy document delineates the sector's value chain and reviews its overall positioning within the national and global industry context to outline its current performance. The following section discusses the strategic development and positioning of the sector to improve its future performance. In doing so it address two pertinent questions: 'Where do we want to go?' and 'How do we get there?'

Answering this will be the guide to Strategy implementation over the next five years. While considerable, the obstacles confronting the Sindh leather value chain are by no means insurmountable. Given the ample supply of raw H&S, coupled with the projected growth in global demand for leather, the Sindh leather industry is eminently equipped to realize the vision formulated and agreed upon by stakeholders who participated in the consultations for the Strategy design. It signifies the aspirations of the province as well as the consensus among stakeholders. The sector's vision is to be:

'Nationally competitive leather renowned for its sustainable practices and innovation'

The vision statement, which was agreed upon by all leather sector value chain stakeholders in Sindh, reflects stakeholders' priorities, which are centred around creating an industry that is both competitive and sustainable, with the ultimate goal of exporting quality products for the correct value. To achieve this vision, three strategic objectives were identified, which are then subdivided into operational objectives that are more precise and action-oriented in scope (see Figure 24). The operational objectives are further broken down into a practical and realistic set of activities presented in the PoA.

Figure 24: Strategic and operational objectives

1. Strengthen the policy and institutional framework for the business development of the sector	2. Enable the sector to improve its productivity and sourcing capacity to better respond to market requirements	3. Enhance market access and induce greater demand for leather and leather products from Sindh
•1.1. Revise key regulations restricting industry growth •1.2. Streamline the capacity of key sector institutions to better respond to the needs of their members	•2.1. Improve the quality and availability of H&S at the field level •2.2. Improve the availability of technically skilled labour in the sector •2.3. Improve financial access for sector operators •2.4. Facilitate increased investment in the sector •2.5. Adapt to reducing the environmental impact throughout the production process	•3.1 Improve the capacity of leather products manufacturers to respond to local and international demand •3.2. Build the market development capacity of the sector

The future of the sector

Unlocking the potential of the leather sector in Sindh will require transformations throughout the value chain. These adjustments, as reflected in the future value chain schematic (see Figure 27), are the result of the targeted efforts detailed in the Strategy PoA that address the bottlenecks identified in the competitiveness constraints section above. These adjustments will allow the sector to compete on both production quantity and quality. The future value chain will be characterized by:

- Modernization of slaughter techniques and facilities for better quality and efficiency
- Leather manufacturers having better access to an adequate supply of raw materials at competitive prices, while simultaneously ensuring that livestock farmers and slaughterhouses are well-connected to tanneries
- Increased research and development, innovation and technology
- A market-related component involving the identification of key markets in the short, medium and long term for exporters from Sindh
- Improved environmental management across the value chain
- Greater investment attraction (joint ventures, foreign direct investment) in the sector.

Unlocking market opportunities for the Sindh leather industry

The leather industry in Sindh has tremendous potential to develop new products in line with global demand to reach new markets. The current leather industry in Sindh is diversified in products, markets and quality levels.

Sindh has a long tradition of leather goods production, exporting a wide range of products at competitive prices. Currently, most of the sector caters to wholesalers and fast-fashion retailers that are not focused on compliance. To continue on the trajectory of meeting international demand, the industry must adhere to environmental regulations. Despite its challenges, the sector continues to attract investment, although more in the Province of Punjab than Sindh. Priorities for leather sector growth in Sindh are presented below in short, medium and long-term goals.

Box 7: Buyer segmentation and needs (what do buyers want?)

Buyer segmentation in the leather industry has undergone significant changes in recent years. Traditionally, the industry was dominated by bulk buyers such as wholesalers and manufacturers, who purchased leather products in large quantities. However, with the rise of e-commerce and fast fashion, individual consumers have become an increasingly important segment of the market. Fast-fashion consumers, in particular, have become a driving force in the industry, as they seek trendy and affordable leather products that are accessible either through online platforms or direct-to-consumer sales, bypassing traditional wholesalers and middlemen.

Additionally, consumers are becoming more aware of the environmental impact of the fashion industry, leading to growing demand for sustainable and eco-friendly leather products. A recent study by McKinsey and Company (2023) highlights that consumers are increasingly willing to pay a premium for sustainable products that have environmental, social and governance claims on their packaging.

Finally, the changing demographics of the global population are also influencing the buyer segmentation of the leather industry. As emerging markets in Asia and Africa continue to grow, there is increasing demand for leather products from these regions. This has led to a shift in buyer segmentation, with a new segment of buyers from emerging markets who value affordability and accessibility when purchasing leather products.

Short term: Meeting the demands of low-compliance brands

In the short term, the leather industry in Sindh could benefit from targeting the demand of low-compliance fast-fashion brands to generate revenue and enhance competitiveness. Large fashion retailers like Zara, H&M, Topshop, Hema and Stradivarius operate in the low-cost, high-fashion market segment that prioritizes affordability and accessibility. Consequently, they may require large quantities of products, sometimes exceeding 10,000 units per order, to meet their demand. Although the materials used in fast fashion are often of inferior quality, appearance in terms of design and colour remains significant.

Nonetheless, this approach should be phased out in the medium-to-long term because it may have detrimental effects on the leather industry's growth. Firstly, focusing solely on low-compliance fast-fashion brands could stifle innovation in the sector. Secondly, these brands are infamous for their negative environmental and labour practices, leading to criticism. By catering to such brands, the leather industry in Sindh risks complicity in these practices, which could harm its reputation. This could result in the loss of customers who are increasingly conscious of the fashion industry's environmental impact and are seeking eco-friendly alternatives in the long run. In the short term, it is recommended to focus on capturing the high-volume, low-quality market and focus on contract manufacturing for brands in Europe (details on market penetration in the following section).

Medium term: Higher-quality products to domestic and international markets

- Increase market penetration in existing markets by improving product quality

- Diversify into new markets, as well as within existing ones, with value-added products
- Explore e-commerce as a distribution channel through dedicated multi-brand online retailers

In the medium term, the leather sector in Sindh should focus on improving its production processes and product quality to meet international standards. This would involve investing in modern machinery, adopting best practices for tanning and implementing quality control measures throughout the supply chain. By doing so, the leather sector in Sindh can enhance its reputation as a reliable supplier of high-quality leather products, which would help it expand its market share in existing export markets and potentially enter new ones.

In addition, the sector should also explore opportunities to tap into the growing market for online retail. Multi-brand online retailers – such as Etsy, Zalando, ASOS, Shopify, La Boutique Maroquinerie (France), Travelbags (Netherlands), Target (United States) and Urban Outfitters (United States) – are becoming increasingly popular among consumers due to their convenience and accessibility (details on market penetration in the following section).

To succeed in online retail, the leather sector in Sindh would need to ensure that its products meet the quality and design standards expected by consumers in these markets. This would involve adapting to changing fashion trends and consumer preferences, and offering competitive pricing and delivery options.

Long-term: Sustainable and transparent product value chain

In the long term, the leather sector in Sindh should focus on developing sustainable practices and promoting ethical sourcing of raw materials. This would involve adopting environmentally friendly processes for tanning and reducing waste generation, as well as ensuring that the H&S used in leather production come from traceable and ethically sourced suppliers. By doing so, the sector can differentiate itself from competitors and appeal to consumers who are increasingly conscious of sustainability and ethical practices. Additionally, the sector can explore opportunities to diversify its product range by developing innovative leather-based products that cater to emerging market trends, such as upholstery and footwear.

Key markets to prioritize in the medium-to-long term

China: An important neighbour with increasingly demanding consumers

Import trends

China is a large neighbouring market for Pakistan, with $11 billion worth of imports of leather and leather products. Pakistan is, however, only the 26th import market for China, representing 0.4% of the Chinese market, worth $46 million. The Chinese market is fragmented, with low concentration. Supplying markets to China include Italy, France, Viet Nam, Brazil, Spain and India, among others. Exports to China have been growing fast due to an increase in the country's economic growth rate and a consequent rise in consumer spending.

In the past five years, China's market for leather, both processed and final outputs, grew by a modest 5%. Despite the increase in the market, and the China-Pakistan Free Trade Agreement since 2007, on average, China's share in the exports from Pakistan reportedly plummeted by over 7% CAGR between 2017 and 2021. Principal in this has been the decline in processed leather exports (semi-finished and finished leather) from $37 million in 2017 to $26.9 million in 2021 (-8% CAGR). Exports of outputs of leather increased from $2.2 million to $2.9 million during the same time period (7% CAGR), although from a low base. Handbags (27% share) were the product most imported by China, followed by footwear (16.7%).

Market access

A preferential tariff under the China-Pakistan Free Trade Agreement is applied to Pakistan for most processed and finished leather products. In most cases this is 0%, as can be seen in Table 7. China's import requirements for leather products are very broad and stringent, with, on average, more than 35 different requirements on sanitary and phytosanitary parameters, certification, labelling, intellectual property, testing, product quality, safety, origin of materials and parts, quarantine, and others. Each HS 6 product line has specific regulations attached and they can be accessed here: https://www.macmap.org/.

Table 7: Effective tariffs of selected leather products from Pakistan to China

HS code	Product	Most favoured nation tariffs (%)	Effectively applied tariffs (%)
420329	Gloves, mittens and mitts	10.00	0.00
420221	Handbags, whether or not with shoulder strap	6.00	0.00
420310	Articles of apparel and clothing accessories	6.00	0.00

640399	Footwear with uppers of leather	8.00	0.00
410712	Dressed leather, of bovine, whether or not split	5.50	0.00
411310	Dressed leather, without wool or hair on, whether or not split	14.00	0.00
420330	Belts and bandoliers	6.00	0.00

Source: ITC Market Access Map (https://intracen.org/resources/tools/market-access-map).

In-market considerations

China has become one of the largest consumers in the world of imported or domestic fashion and luxury goods, in which leather products such as footwear, bags and wallets are always important core product categories. According to data from ITC Trade Map, the export value of the China leather industry was $36.5 billion in 2021. This was an increase of 28.7% compared with the same period in 2020. Import growth is much faster (34.6% year-on-year) than export growth due to the strong demand of Chinese consumers.

The McKinsey China Luxury Report (2019) highlighted that Chinese consumers are becoming increasingly concerned about the environmental impact of their purchases. They not only consider the details of design, brands and fabric, but also the manufacturing process of the products they buy. As a result, many Chinese consumers are willing to pay more for bio-based next-generation leather goods that are manufactured sustainably and take into account environmental factors, quality, animal welfare, personal expression and cost.

Opportunities are ahead but in terms of market supervision, China has strict product quality surveillance and spot-check systems led by various government bodies such as the Administration of Industry and Commerce or the General Administration of Quality Supervision, Inspection and Quarantine (Leather International, 2015). Unsafe or poor-quality products may result in product recalls and other penalties imposed by the Chinese authorities. Recalls and/or penalties may adversely affect brand image and business reputation. It is important to ensure that the relevant safety and compulsory requirements are met when selling on the Chinese market.

In terms of the rise of luxury leather goods on Chinese e-commerce apps, the report notes that there has been a significant increase in online purchases in China, with 30% of consumers opting to buy online in 2020. This has resulted in many luxury leather goods brands opening official Tmall[10] stores, including Hermès, Alexander Wang, Prada and Cartier. Other brands such as Dior, Gucci, Bulgari and Versace have established their digital presence and e-commerce on WeChat. User-generated content also has a significant influence on consumer behaviour, as do endorsements by key opinion leaders and celebrities.

For the leather sector in Pakistan, direct marketing campaigns can provide the foundation for building relationships with clients and distribution channel partners. Moreover, commercial counsellors could play a vital role in gathering and disseminating essential information, and could identify up-to-date and relevant buyer lists.

European Union: An established partner with the potential for further growth

Market profile and trends

EU combined imports of articles of leather (HS 42), footwear (HS 64) and upholstery (HS 94) from all origin countries were $92.7 billion in 2021. Footwear accounted for 62% of this total, articles of leather for 26% and upholstery for 12%. Combined, these products represent 1.5% of the EU's total imports.

The EU is a significant market for Sindh's leather sector, as the region is one of the largest consumers of leather goods in the world. Leather products from Sindh, particularly leather garments and gloves, have demand in the European market due to their competitive prices and good quality. The EU's Generalized Scheme of Preferences provides duty-free access to Pakistani leather products, making them more attractive to European buyers. Pakistan's combined exports of articles of leather (HS 42), footwear (HS 64) and upholstery (HS 94) to the EU totalled $420.7 million in 2021, accounting for 50.2% of total exports. The top exports from Pakistan to the EU were articles of leather apparel, gloves, footwear, and saddlery and harness.

Market access and business environment

To fully access the European market, Pakistani leather companies must meet the EU's stringent regulations and standards, such as those related to environmental protection, labour rights and product safety. Companies

[10] Alibaba's business-to-consumer platform.

must also comply with EU regulations on the use of chemicals and tanning processes to ensure that their products are environmentally friendly and safe for consumers.

Multi-brand retailers of leather goods and accessories, such as department stores and specialty shops, are potential customers for Pakistani leather products. Fast-fashion brands and lifestyle brands that manufacture their own leather products, such as apparel and accessories, can be targeted by leather suppliers from Sindh.

On 20 April 2023, the EU passed a deforestation law that will affect leather supply chains. The law aims to minimize the risks associated with importing or exporting basic products (such as cattle, cocoa, coffee, palm oil, soybeans and wood) and their derivatives that are linked to deforestation and forest degradation. This means that companies importing leather to the EU will need to issue a due diligence statement, verifying that their products have not contributed to deforestation or forest degradation.

The law is likely to have significant impacts on developing countries like Pakistan, as leather producers are likely to struggle with collecting precise geographical information on farmland where cattle are raised because of demonstrated poor compliance across the value chain. This could place a burden on leather producers in Sindh who may find it difficult to supply to the EU market.

In-market considerations

Consumers in the EU demand sustainable leather, with the demand driven by rising environmental concerns. As a result, there is increasing demand for sustainable solutions in leather manufacturing, such as the recycling of used leather products. Nike, for example, is using ELeather – which is a reusable leather, originally developed for seat covers in the transportation industry – for its Flyleather shoes (ELeather, 2020).

Online shopping is another important market consideration for the EU. The COVID-19 lockdowns in many countries made online shopping a necessity, and the practice has maintained solid momentum as both consumers and brands enjoy closer communication, improving online user experience and direct-to-consumer segment expansion.

(Market penetration outlined in activity 3.2.4. of the PoA)

Commonwealth of Independent States:[11] Markets for greater regional presence

Market profile and trends

In 2021, the combined imports of articles of leather (HS 42), footwear (HS 64) and upholstery (HS 94) for all Commonwealth of Independent States (CIS) countries amounted to $7.37 billion. Footwear represented the majority of this total at 73%, followed by articles of leather at 20% and upholstery at 7%. Despite this, these products only accounted for 1.4% of CIS total imports.

The growing consumption of these products in the CIS region presents a significant opportunity for Sindh's leather sector. In the period between 2017 and 2021, imports in the region increased at a CAGR of 6%. Currently, Pakistan's combined exports of articles of leather (HS 42), footwear (HS 64) and upholstery (HS 94) to CIS totalled $30.6 million in 2021, which is just 3.6% of the country's total exports. The top exports to CIS were articles of leather apparel, gloves, handbags and footwear.

Market access and business environment

The Russian Federation is the largest importer of leather products among the member states of CIS. In order to fully access the CIS market, leather companies from Sindh must comply with regulations and standards related to the restricted use of certain substances, labelling requirements, and testing and certification.

Leather suppliers from Sindh can target both online and offline distribution channels for their products. They can focus on fast-fashion and lifestyle brands that manufacture their own leather products, such as apparel and accessories.

(Market penetration outlined in activity 3.2.3. of the PoA)

[11] Armenia, Azerbaijan, Belarus, Kazakhstan, Russian Federation, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Moldova.

National market opportunities for Sindh

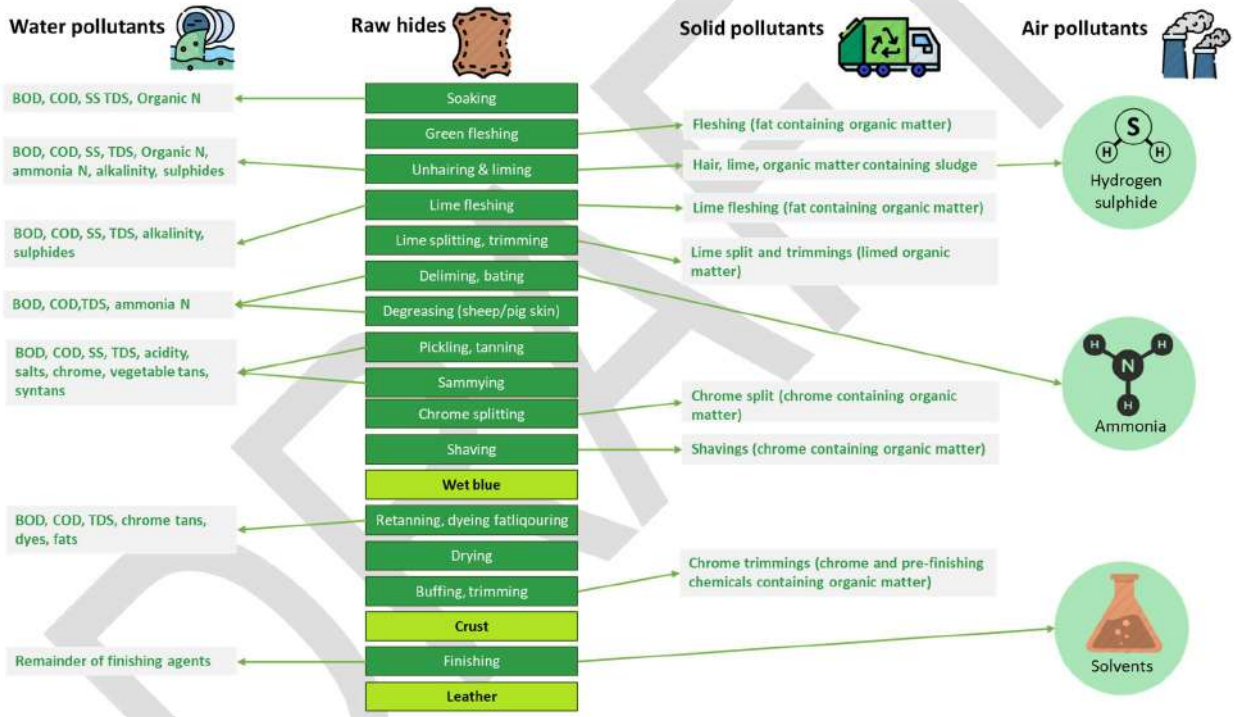
Inter-province trade of leather and leather products within the country is growing. Sindh already exports wet-blue and crusted leather for further processing to the Province of Punjab (Sialkot tannery cluster). Other finished goods such as footwear, handbags and gloves are sold across the country via retail stores or e-commerce. Given the demand, Sindh can further increase exports of wet-blue, crust and finished leather of goats to Punjab, and leather goods like bags and gloves all over the country. However, this will only be possible if logistical and transportation challenges associated with interprovincial trade – which result in high production costs and longer delivery times – can be streamlined. Tourism also presents a good potential market for handicraft souvenirs, leather bags and sandals.

(Market penetration outlined in activity 3.2.5. of the PoA)

Transitioning to sustainable leather production in Sindh

If the effluents from tanneries in Sindh were not treated, the leather sector would contribute significantly to environmental pollution. If not properly disposed of, tanning waste can be considered one of the leading causes of environmental pollution worldwide. Figure 25 illustrates how tanneries pollute the environment.

Figure 25: Pollution from tanneries and leather processing



Note: BOD: Biochemical oxygen demand; COD: Chemical oxygen demand; TDS: Total dissolved solids; SS: Suspended solids.
Source: Author illustration based on United Nations Industrial Development Organization (2011).

While many tanneries use effluent treatment plants, some still face challenges managing solid waste and wastewater treatment. The sector has a large ecological footprint and is resource-intensive, affecting the environment throughout the product life cycle. Sustainability is both an environmental and economic necessity, and since the 18th Amendment to Pakistan's Constitution, it is the responsibility of the provincial government to reconcile these needs. Tanneries in Sindh understand that with growing environmental consciousness, no brand would want to associate itself with environmentally irresponsible suppliers, and many have taken steps towards addressing this. More and more tanneries are now complying with environmental certifications.

Box 8: Life cyle assessment in the leather sector

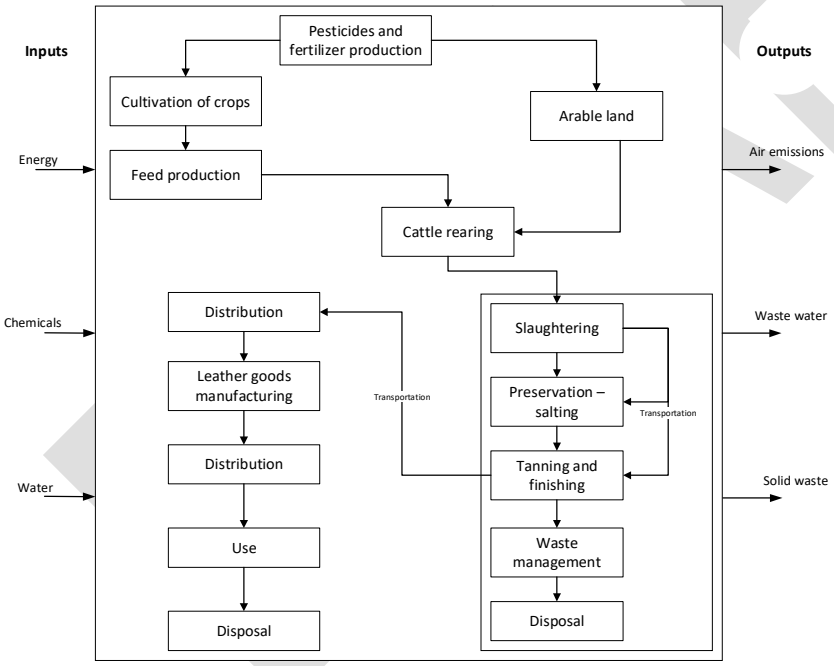
Life cycle assessment (LCA) is one methodology used to measure the environmental impact of a product, from raw-material extraction to disposal (Navarro et al., 2020).

LCA takes a comprehensive and systemic approach by studying all the involved processes. As a result, it can help redesign products and processes (Muñoz et al., 2009), assist in decision-making for waste treatments, and compare materials, products and processes from an environmental perspective. LCA is also useful for obtaining and conveying traceability information. Therefore, to achieve long-term sustainability, the leather industry in Sindh must use an LCA-type approach for environmental research and innovation (Navarro et al., 2020).

To conduct an LCA of leather production in Sindh, data would need to be collected on the environmental impacts of each stage of the production process (suggested in activities 2.2.1. and 2.2.2. in the PoA). The LCA methodology is described in the International Organization for Standardization (ISO) 14044 standard, which specifies the requirements and provides guidelines (ISO, 2006). This would include information on energy and water consumption, greenhouse gas emissions and waste generated at each stage of the production process (see Figure 26).

For example, to accurately depict the extent of the assessment, it is essential to define the system boundaries visually, as demonstrated in Figure 26. The system boundaries for an LCA of leather that encompasses the entire life cycle, from production to disposal, should include all upstream activities, including farming and slaughtering; as well as core processes such as tannery operations, and all transportation between each stage. Additionally, impacts resulting from the production of chemicals, energy and water used in the system, as well as those resulting from waste and wastewater treatments, should be taken into account.

Figure 26: Life cycle analysis of leather industry



Source: ITC, adapted from Joseph & Nithya (2009).

Nowadays, markets are demanding a comprehensive approach that encompasses the entire value chain. Traceability has become a crucial concern, including the assurance of no child labour and the sourcing of hides from animal-care farms. There is also a push for a circular economy in which resources are utilized sustainably (Ellen MacArthur Foundation, 2015).

Sustainability in the leather industry in Sindh is not limited to environmental concerns but extends to social, economic and political dimensions. This includes specific processes across the leather value chain. One key finding is that the leather industry in Sindh needs to expand beyond controlling and obtaining information from its immediate suppliers and have more influence over upstream and downstream processes for complete product life cycle management. Achieving fully traceable and transparent value chains that support

sustainability requires increased cooperation and information exchange between farmers, abattoirs, product manufacturers, brands and retailers (United Nations Economic Commission for Europe, 2021).

International compliance – certification and standards

The leather industry is widely recognized as a polluting industry, and there is growing demand for environmentally friendly products from consumers. To improve the environmental efficiency of the leather value chain in Sindh, it is recommended that a series of actions be taken. At the slaughter level, the Strategy aims to collect H&S more effectively to minimize solid waste, particularly during the Qurbani season. Much of the focus of these green efforts will be on tanneries, which will have access to technologies that reduce water and energy consumption, better management of water and solid waste through the establishment of effluent treatment units, and compliance with SLF and LWG certifications. By implementing better environmental standards in tanneries and monitoring them more closely, the management of environmental concerns can be improved throughout the value chain.

Environmental issues are closely linked to and often overlap with ethical investment, encompassing both the wider natural environment and the workplace. Companies are required to consider a broad range of environmental, social and governance issues, particularly if they wish to qualify for certifications such as ISO 14000, SLF or LWG, which are being mandated by buyers.

Box 9: International initiatives targeted at ensuring sustainability

Zero Discharge of Hazardous Chemicals

Zero Discharge of Hazardous Chemicals is a framework for sustainability in the leather industry launched in 2011. The Zero Discharge of Hazardous Chemicals Foundation, established in 2015 in Amsterdam, oversees the Roadmap to Zero programme (https://www.roadmaptozero.com/), which provides guidelines for chemical and wastewater management in mills and tanneries. It offers a holistic approach to greening the fashion value chain, with industry-endorsed guidelines, implementation support and stakeholder engagement to empower safer product manufacturing.

Leather Working Group

LWG is a multi-stakeholder group with over 1,000 members from across the leather supply chain. It has developed an audit protocol for leather manufacturers and offers environmental certification. Certified tanneries represent around 16% of the global leather volume, and the certification is categorized into gold, silver, bronze and audited levels based on minimum scores in various criteria, including waste management and effluent treatment. The effluent treatment aspects contributing to the scores include:

- Provision of a separate site drainage system (for surface run-off, sanitary effluent and process effluent)
- Wastewater treatment plant operations
- Salt discharge
- Monitoring of wastewater discharge quality
- Verification of monitoring of wastewater discharge
- Wastewater discharge quality.

Due to the high costs involved, LWG ratings are difficult to reach for small tanners and particularly tanneries in developing countries.

Sustainable Leather Foundation

SLF supports the leather industry to comply with all aspects of sustainability: environmental, social and governance. The SLF Transparency Dashboard (https://sustainableleatherfoundation.com/SLFDashboard/) is a tool that offers a visual representation of an organization's progress using a traffic light system, allowing them to participate at their own pace. The information displayed in the Dashboard is open-source, with the aim to educate consumers on the material's sustainable attributes and industry efforts towards good practice.

Oeko-Tex® Leather Standard

The Oeko-Tex® Leather Standard (Oeko-Tex, n.d.) is a certification system for leather and leather goods that ensures high human-ecological product safety. It verifies successful product certification and tests for harmful chemicals in accordance with strict limit values and test criteria. The certification is updated annually based on the latest scientific findings and changes in legislation. It does not include leather from exotic or protected animals, and textile or non-textile components of a leather article are tested according to Oeko-Tex® Standard 100.

Realizing the urgency on the ground, tanneries in Sindh are making greater efforts to minimize the negative environmental impact of their activities at all stages. For instance, as of March 2023, 35 tanneries from Pakistan are compliant with LWG certification, of which 16 are in Karachi. This number has gradually increased over the years. Similarly, 11 tanneries from the country are members of SLF.

Structural adjustments to the industry

Value chain options

Value chain transformation is a prerequisite to unlock the potential for leather industry growth in Sindh. Proposed options will integrate good practices, improve connections with local producers, and increase sector organization and coordination. These adjustments will allow the sector to achieve sector sustainability, supply consistency, product quality, and capacities to conform to export requirements.

Value acquisition: Acquire greater value by improving efficiency		
Value option	How to implement	PoA links

H&S collection and grading	Introducing training courses on better flaying techniques. Salting the flayed H&S before handing them over to collectors. Implementing a province-wide grading system with price premiums.	2.1.1., 2.1.3.
Improve storage facilities for materials	Develop storage areas in each slaughterhouse where the H&S can be collected and salted for preservation.	2.1.4., 2.3.1.
Value creation: Expand production by creating value within the industry		
Value option	How to implement	PoA links
Increase collaboration with other industries	Develop links nationally and internationally to share best practices on skills training, environmental practices, fashion and technology to create value.	2.4.3., 2.5.4., 2.4.3.
Adopt sustainable production methods	With increasing awareness among consumers about environmental issues, adopting sustainable production methods can create value within the industry. Sustainable methods such as the use of eco-friendly tanning processes, reducing waste and the recycling of waste can enhance the appeal of leather products.	2.5.1., 2.5.2., 3.2.1.
Set up local production of trims and inputs	Attract manufactures or distributors of embellishments such as trims, buttons and zippers to Sindh. Further, PTA can identify potential and prospective non-resident investors, including well-known foreign companies that could be invited by the government to invest in trims manufacturing in Sindh.	2.4.1.
Set up an incubator for leather footwear and accessories	Establish a pilot incubator focusing on the footwear industry. Such an incubator can provide several benefits, including access to state-of-the-art machinery and tools at reduced costs, mentoring and training services.	2.4.3.
Value retention: Retain greater value through reinforcement of local inputs production		
Value option	How to implement	PoA links
Reinforce the sourcing of raw materials locally	Improve the local quality and availability of H&S by providing training on better animal husbandry, and improved preservation and flaying techniques.	2.1.3.
Utilize waste from tanneries for secondary sectors	Establish a single-point collection and processing zone to reuse collected waste from tanneries into useful secondary products such as fertilizers, cardboard, gelatine, glue and sludge in cement.	2.4.2.
Value addition: Add perceived value in the eyes of buyers		
Value option	How to implement	PoA links
Diversify the product and market offerings of finished leather products	Diversify the product segments to leather bags, trunks, wallets and upholstery, based on a renewed product and market orientation assessment.	3.2.2. to 3.2.7.
Obtain internationally recognized certification – LWG, SLF, ISO	Encourage tanneries to obtain certifications such as LWG or SLF.	3.1.1., 3.1.3.
Value distribution: Maximize the economic and social development impact		
Value option	How to implement	PoA links
Improve tanneries and slaughterhouses in the interior of Sindh	Facilitate the supply of raw H&S and tanned / crusted hides from the interiors of Sindh to processing facilities. Improve transportation links and upgrade storage practices.	2.1.2.
Create a second processing zone in Hyderabad	Establish a new processing zone in Hyderabad through a campaign targeting foreign direct investment.	2.1.5.

Investment opportunities

Leather is one of the most promising sectors in the province but also one running on substantially low capacity due to a lack of modern technology. The development of better production capacity will require investment in key strategic areas of the value chain to upgrade them. The following segments are seen as key areas for focused investment.

Investment needs	Rationale
Modernizing and upgrading slaughterhouses with state-of-the-art equipment	**Why?** Slaughterhouses – especially government-owned ones – are outdated, with old machinery, archaic tools, and no cold chain facility nor tools for flaying H&S without defects. **How?** Provide slaughterhouses with the appropriate tools for slaughter operations, such as halal slaughter boxes, pulleys to hoist the carcasses to rails and proper skinning knives for skinning operations, as well as mechanical dehiding equipment and cold storage facilities to preserve the H&S.

	Source of funding: Private, public, foreign direct investment **(Linked to activity 1.1.2. in the PoA)**
Attract investment to establish a leather processing zone in Hyderabad	**Why?** Currently there is only one processing zone in Sindh – Korangi. By the time H&S of animals slaughtered in the interior of Sindh reach Korangi, they are mostly damaged (putrefied), leading to wastage. **How?** Invest in a second processing plant, with wooden or polypropylene drums, which would process raw H&S to at least wet-blues in Hyderabad, before they are transported to Korangi for further value addition. **Source of funding:** Private, public **(Linked to activity 2.1.5. in the PoA)**
Create an industry pilot incubator with modern equipment for leather footwear and accessory manufacturing	**Why?** A pilot incubator for leather footwear and accessories will support product development, provide business support and drive innovation in the sector. It will play a crucial role in the growth and development of the industry, improving the quality of products, exposure to international best practices and knowledge exchange. It is worth noting that investments in the leather and leather products industry often necessitate significant funding for large-scale machinery and tools. These investments can often be overwhelming for SMEs to undertake independently. **How?** Establish a pilot incubator at the NILT premises for SMEs that are interested in expanding into the leather footwear and accessories sector. This facility should have shared amenities such as the latest machinery, equipment and tools. Equipping the incubator with the latest processing equipment will allow SMEs to innovate and improve their product supply. Some of the machines needed include: • Leather vacuum dryer machine • CNC oscillating leather cutting machine • High efficiency leather cutting machine for shoes and bags • Shoe leather lamination machine • Digital design printing machine • Leather punching machine • Leather pattern sewing machine. **Source of funding:** Private, public, foreign direct investment **(Linked to activity 2.4.3. in the PoA)**
Attract investment to set up a collection point for secondary waste processing	**Why?** The production of leather results in high volumes of solid waste that can be utilized for the production of fertilizers and the manufacturing of gelatine or animal feed, thus developing new economic models exclusively for the processing of waste. **How?** Establish a single buyer collection and processing zone in Korangi to reuse collected waste from tanneries in secondary products such as fertilizers, cardboard, gelatine, glue and sludge in cement through investment promotion. **Source of funding:** Private, public, foreign direct investment **(Linked to activity 2.4.2. in the PoA)**

Regulatory amendments

Creating an enabling environment by updating regulations is necessary for the development of the leather industry in Sindh. The main regulatory adjustments to be carried out are summarized below:

1. Amend the Sindh Local Government Act, 2013, to transfer the functions and powers to provide, manage, operate and maintain public sector slaughterhouses from local governments to the Government of Sindh.
2. Amend the Sindh Animals Slaughter Control (Amendment) Act, 2004, to declare DoLF as the custodian and implementer of the Sindh Animals Slaughter Control Act rather than the Local Government Department. Further, include mandatory requirements of modernizing the slaughterhouses and enforcing rules for animal welfare, prevention of cruelty to animals, ante-mortem and post-mortem examination.

Institutional amendments

The development of the leather sector in Sindh depends significantly on the functions and roles of support institutions and overall inter-institutional coordination. Certain capacity and resource issues must be addressed

if these institutions are to support the sector effectively. For a visual presentation of institutions within the value chain, please refer to Annex III: Institutional support mapping and adjustments.

Strengthen the capacity of DoLF (**linked to PoA activity 2.1.2.**)

To manage the leather sector, DoLF will enhance its skills and capacities to address the gaps in the management of slaughterhouses, ensuring compliance with regulations and guidelines for animal slaughter and skinning, particularly in the interior regions of Sindh.

Revive NILT (**linked to PoA activities 2.2.1. to 2.2.3.**)

Reviving NILT will help develop the leather industry by providing quality education and training programmes to the workforce.

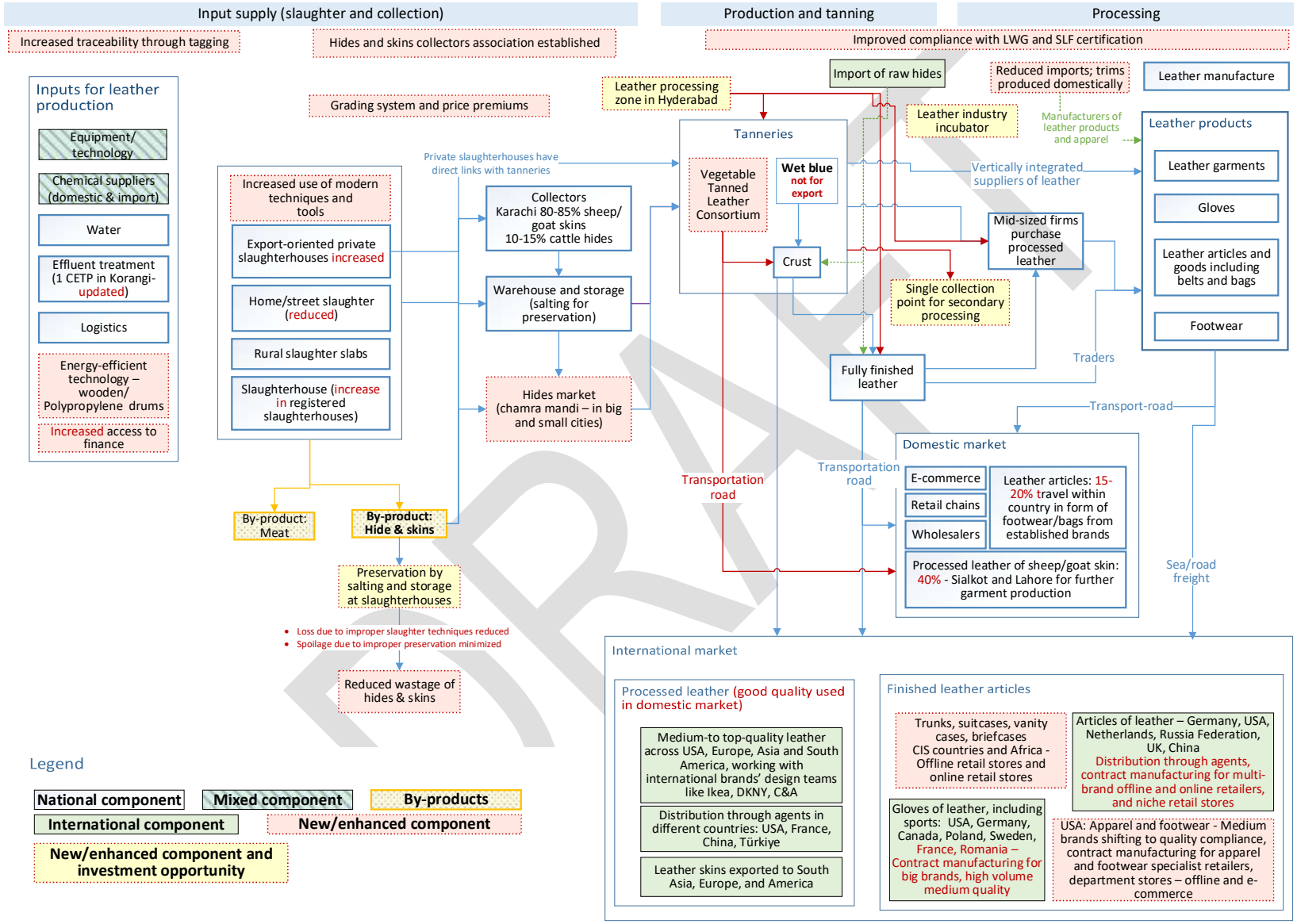
Establish a leather advisory subcommittee under the Sindh LDC for implementation management (**linked to PoA activity 1.2.1.**)

Establishing a leather advisory subcommittee under the Sindh LDC is aimed at monitoring the implementation of activities specific to the leather sector.

Establish an H&S collectors association in Sindh (**linked to PoA activity 1.2.2.**)

The association will be recognized as the principal interlocuter for H&S collectors by the government and PTA. Its objective is to develop a network of licensed collectors to gather H&S from the different slaughterhouses spread across the Province of Sindh, preserve them, grade them and then sell them to tanneries, thus reducing wastage.

Figure 27: Future value chain



Source: ITC.

Implementation modalities

The Leather Sector Development Strategy is not the strategy of any specific institution; rather, it is the Strategy of Sindh, which endeavours to leverage the leather industry to contribute to overall economic growth in the province. Nevertheless, a Strategy in itself is not enough to ensure the sector's sustainable development. Such development will require elaboration and coordination among various stakeholders for different activities. While the execution of these activities will allow the Strategy's targets to be achieved, success will depend on the ability of stakeholders to plan and coordinate actions in a tactical manner. Successful Strategy implementation, therefore, will require:

- A high level of commitment from relevant stakeholders
- Systematic coordination and communication between implementing bodies
- The readiness of the public and private sectors to allocate / mobilize resources.

Setting up the governance framework – Livestock Development Council or similar

To achieve success and ensure the continuing viability of the Strategy, it is crucial to identify and create a reliable system that will facilitate its implementation. Having an effective institutional mechanism to oversee and coordinate the execution of the Strategy will help clarify everyone's roles, make the most of scarce resources, assign responsibilities and accountability, and promote transparency among both public institutions and private sector organizations.

For the implementation of the Leather Sector Development Strategy, it is recommended that DoLF establish an LDC (or similar) under the Sindh Food Security Council as part of the Sindh Livestock Policy to provide financial, operational and technical support. It is also recommended that certain members of the LDC be part of the Federal Sector-Specific Council created under the aegis of TDAP and MoC and as part of the Strategic Trade Policy Framework.

Leather sector subcommittee

A leather sector subcommittee will be established under the LDC (or similar). This formal dialogue platform will require high-level involvement by both public and private sector members. Their role is crucial and will influence the effectiveness of Strategy implementation. It is recommended that one of the chairs be from the private sector and the other from the government, to be consulted on key trade thematic areas ranging from policy to regulations and trade negotiations.

The core team consulted during the Strategy design process was composed of a panel of representatives of key institutions, involving ministries as well as representatives of the private sector. As such, once its mandate is appropriately adjusted, this group of stakeholders, together with additional human resources as required, is best positioned to serve in the leather sector subcommittee.

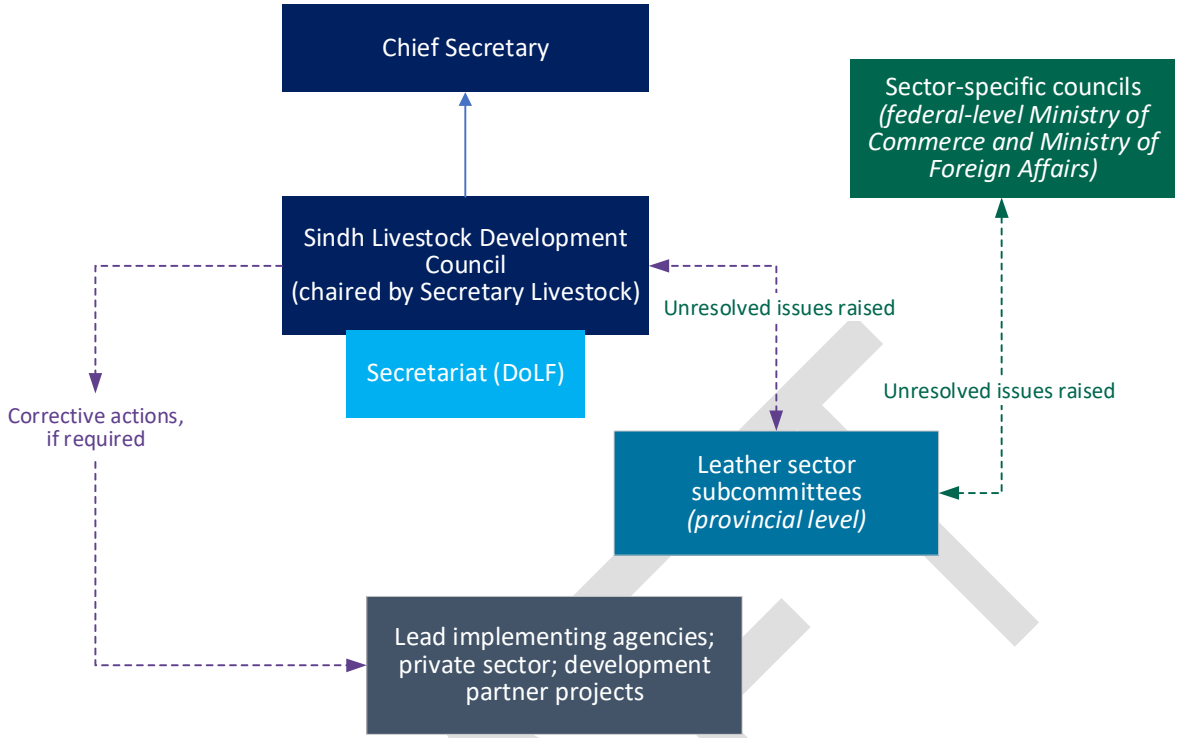
The leather sector subcommittee will meet quarterly and implement the following functions:

- Act as a consultative group in matters pertaining to the leather sector, enabling the private sector and government representatives to identify priority issues
- Coordinate and monitor implementation of the Strategy by the government, private sector, institutions or international organizations to ensure it is on track
- Identify and recommend allocation of resources necessary for Strategy implementation
- Elaborate and recommend revisions and enhancements to the Strategy so that it continues to best respond to the sector's needs and long-term interests
- Propose key policy changes to be undertaken based on Strategy priorities and promote these policy changes among national decision makers
- In the event that Strategy implementation requires adjustment to achieve the expected results, the leather sector subcommittee will have the responsibility to undertake all corrective measures.

Specific tasks falling under these broad areas of activities include:

- Formulate project proposals, including budgets, for implementation of Strategy activities
- Develop annual and twice-yearly workplans for approval by the LDC (or similar)
- Collect information from project implementation and prepare regular monitoring reports to be submitted to the LDC (or similar).

Figure 28: Proposed institutional framework for leather sector development



Source: ITC.

The LDC (or similar) will be established in line with the recommendation in the Livestock Policy to monitor Leather Sector Development Strategy implementation and share findings with the Secretary of DoLF every quarter. Inputs and outputs will be monitored against the indicators and targets in the PoA. An independent midterm review and evaluation will be carried out by DoLF in coordination with any agencies concerned.

Financial resource mobilization for implementation

While resource mobilization is only part of the solution, it plays a crucial and indispensable role in supporting Strategy implementation. An integrated resource mobilization plan should be elaborated as soon as the Strategy is adopted. Resource mobilization involves planning the sequencing of communications with donors, project design, creating project proposals / applications, and resource collection and management. This should facilitate, leverage and strengthen the impact of diverse financial sources – national resources, development aid and private investment – to support sustainable and inclusive implementation.

- **National resources through direct budget and support programmes:** The government will need to validate defined minimum budget support for Strategy implementation. Such support will demonstrate government commitment to the initiatives.
- **Alignment of donor support and interventions with the Strategy:** The sector forum and authorities will need to capitalize on the significant momentum gained as part of the Strategy design process and leverage it for smooth and efficient implementation. International development agencies can use the Strategy as the logical framework for their programmes – benefits from the favourable conditions for operation could include political endorsement, private sector buy-in and improved collaboration with national institutions. The PoA should serve the sector forum as well as national institutions to improve communication and facilitate the negotiation, planning, coordination and evaluation of commitments made in the context of development aid, in particular through the development of programmes and project proposals aligned with Strategy priorities.
- **National and foreign investment**: The current Strategy design core team is composed of representatives of national institutions, the trade and investment support network and the private sector. If the sector forum becomes the coordinating body, the Strategy should benefit from a solid channel of communication capable of conveying reliable information to both companies (about export-related opportunities in the industry) and the government (on the needs that investors have identified

so they can operate successfully). Investment in Sindh could serve as a valuable driver of export development. Even so, it must be targeted at specific prospects in order to benefit the industry's development.

The various implementation modalities detailed above will determine the success of Strategy implementation. However, high-level support from the government, in collaboration with strong championship by the business sector, will be the real driver of successful Strategy implementation.

Recommended 'quick wins' for Year 1 implementation

The following activities have been identified by stakeholders as having high priority, and high return, and are therefore recommended for implementation in the first year. The objective of the activities in the first year is to establish a solid foundation for full Strategy implementation.

Policy and regulatory activities

Provincial Assembly of Sindh: Amend the Sindh Local Government Act, 2013, to transfer the functions and powers to provide and maintain public sector slaughterhouses from a Corporation (Metropolitan Corporation, District Municipal Corporation or Municipal Corporation), Municipal Committee or Town Committee to the Government of Sindh. **Linked to PoA activity 1.1.1.**

Provincial Assembly of Sindh: Amend the Sindh Animals Slaughter Control (Amendment) Act, 2004, and declare DoLF the custodian and implementer of the Act rather than the Local Government Department. As such, DoLF should prohibit the slaughter of useful animals and regulate the slaughter of other animals in the province. In particular, the responsibility for establishing and licensing slaughterhouses should be transferred to the province. **Linked to PoA activity 1.1.2.**

Institutional framework

Planning and Development Department: Increase the financial resources allocation to DoLF so it can carry out training and capacity building of its staff on good practices for slaughterhouses. Such practices include compliance with regulations and guidelines when slaughtering the animal and flaying the skin, especially in the interior regions of Sindh. Capacity will be built through training, PC-II or visits to internationally compliant slaughterhouses. **Linked to PoA activity 2.1.2.**

DoLF: Establish a leather advisory subcommittee under the Sindh LDC to guide sector development. The Board and its subcommittees should form a public-private dialogue platform, including academia. **Linked to PoA activity 1.2.1.**

PTA (SZ): Support collectors to establish an H&S collectors association in Sindh to be the principal interlocuter for H&S collectors with the government and PTA. Following this, the association should establish its own licensing programme to be issued to recognized collectors based on applicants meeting pre-established criteria, which can be administered by PTA or another industry body. The association should eventually develop a strategy and service portfolio to increase its bargaining power, deliver training and have better lobbying capacity. **Linked to PoA activity 1.2.2.**

Sustainability, quality and skills capacity

Investment Department: Conduct a feasibility study to assess the viability of establishing a new processing zone in Hyderabad. The study should include an assessment of the availability of raw materials and infrastructure needs. **Linked to PoA activity 2.1.5.**

DoLF: Call for an annual expression of interest by slaughterhouses (public or private) to receive trainings in 'professional animal slaughtering and zero-defect H&S flaying technology'. They will receive a certificate upon completion, then the best three companies / organizations in the province will be rewarded with an award during the Pakistan Mega Leather Show. PTA and DoLF should organize the training programme by inviting experts who can share their knowledge and skills with the selected slaughterhouses. **Linked to PoA activity 2.1.3.**

SEPA: Complete a full assessment of the environmental impact of tanneries, including effluent treatment of solid and liquid waste (physical, chemical or biological) to define a baseline and forecast of possible reduction of pollution loads of all tanneries in Sindh. **Linked to PoA activity 2.5.1.**

Summary

The PoA is structured along the strategic and operational objectives described above. For each of these objectives the PoA outlines detailed activities and their implementation modalities, which include:

- **Priority level:** Priority 1 represents the highest level of importance and priority 3 the lowest
- **Start / end dates:** The expected time frame within which the activity will be achieved (note: time frames may be adjusted during implementation)
- **Targets:** Quantifiable targets that allow monitoring of the activity during implementation
- **Lead implementing partner:** A single institution assigned primary responsibility for implementation in order to increase accountability
- **Supporting implementing partners:** Any institution involved at any stage of the activity's implementation
- **Estimated cost:** An estimate of the activity's cost for entire implementation period.

Activities highlighted in green are of high priority and recommended for immediate implementation.

Plan of Action 2023–2027

Operational objective	Activity	Priority (1=Highest)	Period					Targets	Leading implementing partner(s)	Supporting implementing partners	Budget costing (1$= 285 PKR)
			2023	2024	2025	2026	2027				
Strategic objective 2. Strengthen the policy and institutional framework for the business development of the sector											
1.1. Revise key regulations restricting industry growth	1.1.1. Amend the Sindh Local Government Act, 2013, to transfer the functions and powers to provide and maintain public sector slaughterhouses from a Corporation (Metropolitan Corporation, District Municipal Corporation or Municipal Corporation), Municipal Committee or Town Committee to the Government of Sindh. *(Linked to activity 4 of the Sindh Livestock Policy, and activity 1.1.3. in the Meat Sector Strategy)*	1						• Sindh Local Government Act, 2013, amended	Provincial Assembly of Sindh	• Sindh municipality (Taluka Municipal Administrations) • DoLF	PKR 5,000,000 $17,544
	1.1.2. Amend the Sindh Animals Slaughter Control (Amendment) Act, 2004, and declare DoLF the custodian and implementer of the Act rather than the Local Government Department. As such, DoLF should prohibit the slaughter of useful animals and regulate the slaughter of other animals in the province. In particular, the responsibility for establishing and licensing slaughterhouses should be transferred to the province. *(Linked to activity 4 of the Sindh Livestock Policy, and activity 1.1.4. in the Meat Sector Strategy)*	1						• Sindh Animals Slaughter Control (Amendment) Act, 2004, amended	Provincial Assembly of Sindh	• Sindh municipality (Taluka Municipal Administrations) • DoLF	PKR 5,000,000 $17,544
1.2 Streamline the capacity of key sector institutions to better respond to the needs of their members	1.2.1. Establish a leather advisory subcommittee under the Sindh LDC to guide sector development. The Council and its subcommittees should form a public-private dialogue platform, including academia, and oversee Strategy implementation. *(Linked to activity 1.1.6. in the Meat Sector Strategy and activity 3.1.1. in the Dairy Sector Strategy)*	1						• Sindh LDC and its subcommittees established by 2024	DoLF	• DoIC • PTA (SZ) • PLGMEA • PGMEA • EDF • MoC	PKR 1,000,000 $3,509

Operational objective	Activity	Priority (1=Highest)	Period					Targets	Leading implementing partner(s)	Supporting implementing partners	Budget costing (1$= 285 PKR)
			2023	2024	2025	2026	2027				
	1.2.2. Support collectors to establish an H&S collectors association in Sindh, to be the principal interlocuter for H&S collectors with the government and PTA. Following this, the association should establish its own licensing programme, with licences to be issued to recognized collectors based on applicants meeting pre-established criteria, which can be administered by PTA or another industry body. Eventually the association should develop a strategy and service portfolio to increase its bargaining power, deliver training and have better lobbying capacity.	1						• An H&S collectors association established in Sindh in Year 1 • At least 60% of collectors join the association within two years of establishment • Over the next three years, the association develops a service portfolio and delivers training	PTA (SZ)	• Federation of Pakistan Chambers of Commerce and Industry • Directorate General of Trade Organizations	PKR 3,000,000 $10,526
	1.2.3. Conduct an assessment of the existing development plan (managerial, functional, operational) of PTA, and then review the service portfolio to better serve members. This could be done through EDF financing or PC-II, which would allow the association to allocate resources specifically for this purpose. The services may include: • Networking opportunities with other leather industry professionals • Business and technical advice on leather production and processing • Training and professional development programmes for leather workers and manufacturers • Market research and analysis of the leather industry. *(Linked to the federal-level Leather Sector Strategy, activities 2.1.5. and 2.1.6.)*	2						• Assessment of the existing development plan and review of service portfolio of PTA completed in Year 1 • Survey conducted among members to gather feedback on the current services offered and what they would like to see in the future • Subsequently, depending on the results, the services portfolio is adjusted • Member satisfaction level with PTA's services is measured by surveys or feedback mechanisms	• MoC • EDF	• PTA (SZ) • DoIC	PKR 21,500,000 $75,439
	1.2.4. Conduct an assessment of the existing development plan (managerial, functional, operational) of PLGMEA, and then review the service portfolio to better serve members. This could be done through a special budgetary request, which would allow the association to allocate resources specifically for this purpose. The services may include: • Networking opportunities with other leather industry professionals • Business and technical advice on leather production and processing	2						• Assessment of the existing development plan and review of service portfolio of PLGMEA completed in Year 1 • Survey conducted among members to gather feedback on the current services offered and what they would like to see in the future	• MoC • EDF	• PLGMEA • DoIC	PKR 21,500,000 $75,439

Operational objective	Activity	Priority (1=Highest)	Period					Targets	Leading implementing partner(s)	Supporting implementing partners	Budget costing (1$= 285 PKR)
			2023	2024	2025	2026	2027				
	• Training and professional development programmes for leather workers and manufacturers • Market research and analysis of the leather industry. *(Linked to the federal-level Leather Sector Strategy, activities 2.1.5 and 2.1.6.)*							• Subsequently, depending on survey results, the service portfolio is adjusted • Member satisfaction level with PLGMEA's services is measured by surveys or feedback mechanisms			
	1.2.5. Conduct an assessment of the existing development plan (managerial, functional, operational) of PGMEA, and then review the service portfolio to better serve members. This could be done through a special budgetary request, which would allow the association to allocate resources specifically for this purpose. The services may include: • Networking opportunities with other leather industry professionals • Business and technical advice on leather production and processing • Training and professional development programmes for leather workers and manufacturers • Market research and analysis of the leather industry. *(Linked to the federal-level Leather Sector Strategy, activities 2.1.5 and 2.1.6.)*	3						• Assessment of the existing development plan and review of service portfolio of PGMEA completed in Year 1 • Survey conducted among members to gather feedback on the current services offered and what they would like to see in the future • Subsequently, depending on survey results, the service portfolio is adjusted • Member satisfaction level with PGMEA's services is measured by surveys or feedback mechanisms.	• MoC • EDF	• PGMEA • DoIC	PKR 21,500,000 $75,439
										Strategic objective 1 total	**PKR 78,500,000 $275,439**

Operational objective	Activity	Priority (1=Highest)	Period					Targets	Leading implementing partner(s)	Supporting implementing partners	Budget costing (1$= 285 PKR)
			2023	2024	2025	2026	2027				
Strategic objective 2. Enable the sector to improve its productivity and sourcing capacity to better respond to market requirements											
2.1. Improve the quality and availability of H&S at the field level	2.1.1. Develop a provincial-level guideline for grading H&S and determine a price system to incentivize higher quality of H&S by rewarding slaughterhouses with premiums on better-quality, machine-flayed hides without holes or cuts for use by the collector's association and PTA.	2						• Provincial-level guidelines for grading H&S developed and published within Year 1 • Price-premium system established and implemented across major slaughterhouses	DoLF	• PTA • Planning and Development Department	PKR 2,000,000 $7,018
	2.1.2. Increase the financial resources allocation to DoLF so it can carry out training and capacity building of its staff on good practices for slaughterhouses, especially those in the interior regions of Sindh. These practices include compliance with regulations and guidelines when slaughtering the animal and flaying the skin. Capacities will be built through training, PC-II or visits to internationally compliant slaughterhouses. *(Linked to activity 3.2 of the Sindh Livestock Policy)*	1						• At least 70% of DoLF staff trained by the end of five years • All abattoirs in the interior regions of Sindh are inspected at least once every two months • Quarterly reports are submitted to DoLF on time and contain complete and accurate information • At least a 50% rate of compliance with regulations and guidelines achieved in the first year, which is subsequently increased to 90% by the end of the cycle • Level of defects in H&S reduced by at least 75% by the end of the 5-year cycle	Planning and Development Department	• PTA • DoLF • Sindh municipality (Taluka Municipal Administrations)	PKR 75,000,000 $263,158
	2.1.3 Call for an annual expression of interest by slaughterhouses (public or private) to receive training in 'Professional animal slaughtering and zero-defect H&S flaying technology'. Participating slaughterhouses will receive a certificate upon completion, and the three best slaughterhouses in the province will receive an award during the Pakistan Mega Leather Show. PTA and DoLF should organize the training programme by inviting experts who can share their knowledge and skills with the selected slaughterhouses.	1						• At least 10 slaughterhouses selected annually through an expression of interest to receive training • By the end of the training programme, the trained slaughterhouses demonstrate a measurable increase in the quality of their H&S, as evidenced by	DoLF	• PTA	PKR 1,000,000 $3,509

							a minimum 25% improvement in overall grade and value of the product • Annual quality award given to three slaughterhouses during the Pakistan Mega Leather Show			
	2.1.4. Adopt and enforce a new regulation for preservation and storage of H&S in abattoirs – based on international standards such as 'ISO 22244:2020 on Leather – Raw hides – Guidelines for preservation of hides', with additional requirements specific to the country. The Sindh H&S collectors association will support implementation of the regulation after being adopted by the Provincial Assembly of Sindh.	2					• ISO 22244:2020 on Leather – Raw hides – Guidelines for preservation of hides adopted and enforced	DoLF	• Sindh H&S collectors association • PTA • Planning and Development Department • Provincial Assembly of Sindh • Law, Parliamentary Affairs and Criminal Prosecution Department	PKR 5,000,000 $17,544
	2.1.5. Conduct a feasibility study to assess the viability of establishing a new processing zone in Hyderabad. The study should include an assessment of the availability of raw materials and infrastructure needs. *(Linked to activity 2.4.4. below)*	1					• A feasibility study on the establishment of a second processing zone completed	Investment Department	• DoIC • DoLF • PTA (SZ)	PKR 5,000,000 $17,544
2.2. Improve the availability of technically skilled labour in the sector	2.2.1. Conduct (through a consultant) a research-based institutional development plan for NILT (PC-II or feasibility study) to plug the gaps in the training available to the workforce in leather value chain sectors (for the short, medium and long term). The output will be a training proposal which should be in line with the EDF prescribed format.	2					• A final training proposal should be in line with the EDF prescribed format	DoIC	• PTA (SZ) • PLGMEA • PGMEA	PKR 2,000,000 $7,018
	2.2.2. Award a grant to NILT to revive the institute under the supervision of the leather advisory committee and STEVTA. The grant can include funding for the upgradation of physical infrastructure, procurement of training tools and equipment, review and upgradation of curriculum and training of trainers, etc.	2					• NILT revived with the support of EDF and private sector associations	• EDF • MoC	• PTA (SZ) • PLGMEA • PGMEA • STEVTA	PKR 25,000,000 $87,719

	2.2.3. Design short-term certification courses on leather goods manufacturing, leather gloves manufacturing, and leather design and technology in affiliation with NILT and STEVTA. The courses should be developed in collaboration with the Government Institute of Leather Technology, Punjab.	2						• Short-term courses designed in affiliation with STEVTA, NILT and the Government Institute of Leather Technology	NILT	• PTA (SZ) • PLGMEA • PGMEA • STEVTA • Government Institute of Leather Technology	PKR 10,000,000 $35,088
	2.2.4. PTA, PLGMEA and PGMEA to collectively establish a transportation pilot project to bring workers, especially women from far away, to Korangi Industrial Area. This can be done by providing buses designated by the industry running along a pre-established route, ensuring women's safety.	1						• A transportation pilot project successfully established and operationalized. At least 30% increase in the number of workers commuting from distant areas	Transport and Mass Transit Department	• PTA (SZ) • PLGMEA • PGMEA	PKR 84,400,000 $296,140
2.3 Improve financial access for sector operators	2.3.1. Building on the State Bank of Pakistan's Green Banking Guidelines, establish a dedicated department within financial institutions in Sindh to provide tailored business advisory services and financing for SMEs seeking to adopt cleaner production methods. This department should develop internal systems and infrastructure for green finance, and work to clarify definitions for and the scope of 'green finance' and 'green / sustainable finance' to ensure consistent and effective implementation of the Green Banking Guidelines.	2						• Standardized framework for evaluating and approving green financing applications across the province developed • Increased awareness of green finance among SMEs and financial institutions in Sindh • At least 50 projects supported over the period 2024–2027; with at least 40% of the loan recipients being SMEs	Sindh Bank Limited	• State Bank of Pakistan • SEDF • PTA • Karachi Chamber of Commerce and Industry	No cost implications
	2.3.2. Introduce a training programme for leather SMEs on preparing bankable business plans to submit to financial institutions in collaboration with industry associations and the public sector. *(Linked to the federal-level Leather Sector Strategy, activity 2.1.5)*	1						• Training programme developed in collaboration with industry associations and the public sector within the first six months • At least 20 SMEs trained each year	Small and Medium Enterprise Development Authority	• PTA (SZ) • DoIC	PKR 1,000,000 $3,509
2.4. Facilitate increased investment in the sector	2.4.1. Attract manufacturers or distributors of embellishments such as trims, buttons and zippers to Sindh. Conduct an investment targeting campaign.	1						• At least two manufacturers / distributors identified to establish joint ventures within Sindh for ancillary inputs	Investment Department	• MoC • SEDF • PTA (SZ) • DoIC • PLGMEA • PGMEA	PKR 10,000,000 $35,088

	2.4.2. Establish or designate a single buyer collection and processing zone in Korangi to reuse collected waste from tanneries in secondary products such as fertilizers, cardboard, gelatine, glue and sludge in cement through investment promotion or targeted incentive measures (tax benefits / incentives / temporary lifting of income tax).	3						• A single collection and processing zone established with the aim to collect and process at least 60% of the waste from tanneries per month within the first year of operation, with the goal of gradually increasing to 80% over time	Investment Department	• SEDF • DoIC • SMEDA • PTA (SZ)	To ask PTA
	2.4.3. Through a PC II, prepare an investment proposal to establish a pilot incubator at the NILT premises for SMEs that are interested in expanding into leather footwear / accessories. This facility should have shared amenities such as the latest machinery, equipment and tools. Assistance for companies would include: • Cooperation with global leather incubators[12] to create a precise PoA (business case) for acquiring knowledge of best practices • Specialized technical education on new tools, techniques for leather finishing and best practices • Support for marketing and understanding the market and fashion trends • Facilitating access to finance.	2						• Investment received to set up a pilot incubator, with the latest machinery and tools • Cooperation with international leather incubators established and knowledge exchange sessions held at least twice a year	Investment Department	• DoIC • Sindh Small Industries Corporation • Pakistan Footwear Manufacturer Association • SEDF	PKR 250,000,000 $877,193
	2.4.4. Develop an investment targeting plan to establish a new processing zone in Hyderabad. The plan should outline the estimated costs of establishing the new processing zone, including the costs of acquiring and installing necessary equipment, hiring staff, and constructing the necessary infrastructure. *(Linked to activity 2.1.5. above)*	2						• A new processing zone established	Investment Department	• DoIC	PKR 3,000,000,000 $10,526,316
2.5. Adapt to reducing the environmental impact throughout the production process	2.5.1. Complete a full assessment of the environmental impact of tanneries, including effluent treatment of solid and liquid waste (physical, chemical and biological) to define a baseline and forecast of possible reduction of pollution loads of all tanneries in Sindh. *(Environmental compliance at the slaughterhouse level is included in activity 3.2.2. of the Meat Sector Strategy)*	1						• A complete assessment of the environmental impact completed. Baseline report shared with stakeholders • At least 80% of tanneries adopt measures to reduce pollution loads by a minimum of 50% within the next five years	SEPA	• PTA • Environment, Climate Change and Coastal Development Department	PKR 10,000,000 $35,088

[12] Example: Au-delà du cuir – a French incubator for leather industry companies.

	2.5.2. Based on the results of 2.5.1., SEPA to conduct a gap analysis of the existing environmental regulations for tanneries and their compliance, bringing to the attention of regulatory bodies any lack of compliance, resulting in penalties.	2						• Detailed gap analysis of existing environmental regulations concluded • Recommendations for corrective action provided to each tannery	SEPA	• Environment, Climate Change and Coastal Development Department • PTA	PKR 2,000,000 $7,018
	2.5.3. Upgrade the operations of the existing common effluent treatment plant in Korangi from the current practice of arbitrary payment by tanneries to a more systemized 'polluter pays' principle. This can be done by installing flow meters through SEDF financing.	2						• At least 60% of tanneries in Korangi adopt the 'polluter pays' principle within the next three years by installing flow meters through SEDF financing • This should increase to 80% by the end of five years	PTA	• Korangi Association of Trade and Industries • SEPA • SEDF	No cost implications
	2.5.4 Develop partnerships with international leather research institutes and promote joint ventures to promote the adoption of cleaner and efficient production technology in the leather industry, e.g. investing in wooden or polypropylene drums.	3						• At least three new partnerships / joint ventures with international institutes	SEDF	• PTA • SEPA	No cost implications
Strategic objective 2 total											**PKR 3,482,400,000 $12,218,947**

Operational objective	Activity	Priority (1=Highest)	Period					Targets	Leading implementing partner(s)	Supporting implementing partners	Budget costing (1$= 285 PKR)
			2023	2023	2023	2023	2023				
Strategic objective 3. Enhance market access and induce greater demand for leather and leather products from Sindh											
3.1. Improve the capacity of leather products manufacturers to respond to local and international demand	3.1.1. Hold quarterly training sessions organized by PTA and delivered by experts to inform members about the benefits of complying with better quality management practices (e.g. ISO 9000, ISO 45000, ISO 26000, Lean Management, Six Sigma) to reduce rejection from buyers and eliminate waste.	2						• At least two training sessions held annually on better quality management practices • Steady attendance rate of at least 70–80 tanneries present at the training sessions, including SMEs • Regular member feedback on the usefulness of the training sessions and their impact on business practices	PTA (SZ)	• PLGMEA • PGMEA • Pakistan Standards and Quality Control Authority • Pakistan Council of Scientific and Industrial Research Leather Research Centre	PKR 16,000,000 $56,140
	3.1.2. Allocate an SEDF request fund to conduct a training of trainers programme on how to make leather apparel and leather goods, with the use of correct machinery and correct production techniques, for SMEs.	2						• Training of trainers programme created and a minimum of 10 tanneries trained each year	SEDF	• PTA (SZ) • PLGMEA	PKR 500,000 $1,754
	3.1.3. Allocate funds for tanneries to acquire certifications through refunding 50% of the funds deposited in the EDF by the leather sector to set up LWG- and SLF-compliant tanneries. *(Linked to the federal-level Leather Sector Strategy, activity 2.1.2)*	1						• Refund of 50% of the funds deposited in EDF on the condition that firms invest in SLF / LWG certification • At least 15 new tanneries and manufacturers acquire LWG / SLF certification	• MoC • EDF	• DoIC • PTA (SZ) • PLGMEA • PGMEA • SEPA • Pakistan Council of Scientific and Industrial Research Leather Research Centre • Pakistan Standards and Quality Control Authority	PKR 5,000,000 $17,544

3.2 Build the market development capacity of the sector	3.2.1. Facilitate the formation of a Sindh vegetable tanned leather consortium among tanneries in Korangi with the same standards of production to increase exports of quality leather and finished products to target internationally demanding markets.	3						• Sindh vegetable tanned leather consortium established	PTA (SZ)	• DoIC • SEPA	No cost implications
	3.2.2. Complete detailed market entry plans for priority product / market combinations and disseminate them online and/or directly to tanneries and exporters. Focus on CIS member states (Armenia, Azerbaijan, Belarus, Kazakhstan, Russian Federation, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Moldova). • Trunks, suitcases, vanity cases, executive cases, briefcases • Articles of apparel and clothing accessories • Saddlery and harness for animals	3						• Market entry profiles completed and revised every two years • Information disseminated to stakeholders	TDAP	• PTA (SZ) • PLGMEA • PGMEA	PKR 6,000,000 $21,053
	3.2.3. Complete detailed market entry plans for priority product / market combinations and disseminate them online and directly to tanneries and exporters. Focus on Africa (especially, Angola, Botswana, South Africa, Zambia) • Trunks, suitcases • Handbags • Articles of apparel and clothing	1						• Market entry profiles completed and revised every two years • Information disseminated to stakeholders	TDAP	• PTA (SZ) • PLGMEA • PGMEA	PKR 6,000,000 $21,053
	3.2.4. Complete detailed market entry plans for priority product / market combinations and disseminate them online directly to tanneries and exporters. Focus on EU countries (France, Poland, Romania) • Gloves • Goat-kid leather further prepared after tanning or crusting	1						• Market entry profiles completed and revised every two years. • Information disseminated to stakeholders	TDAP	• PTA (SZ) • PLGMEA • PGMEA	PKR 6,000,000 $21,053
	3.2.5. Complete a detailed market study of national demand and forecast needs. National market: • Wet-blue • Crust and finished leather • Leather goods such as bags • Leather gloves	2						• Detailed market study completed • Increased exports of semi-finished and finished leather to other provinces	Sindh Small Industries Corporation	• PTA (SZ) • PLGMEA • PGMEA • Transport and Mass Transit Department	PKR 2,000,000 $7,018

	3.2.6. Subscribe to and disseminate international market study and trend reports such as Leatherbiz, Vogue, WGSN, The Future Laboratory, Fashion Network, Business of Fashion, L'Officiel, etc. to let stakeholders understand market demands. This can be done through an EDF request.	1					• Subscribe to at least 3–4 international market study and trend reports within the next one year, with a focus on reports that are most relevant to stakeholders • Monthly, or as required, distribute summaries of the market studies and trend reports to all the associations • Hold at least two meetings or workshops annually with stakeholders to discuss the market studies and trend reports and their implications for the industry within Year 1	PTA (SZ)	• TDAP • MoC • EDF	PKR 15,500,000 $54,386
	3.2.7. Participate in trade fairs like Leatherworld Paris, LINEAPELLE New York, APLF ASEAN and ACLE China, or organize single-country delegations to meet leather buyers or invite to business-to-business meetings. These can be organized with the support of the sector association and trade attachés abroad. Priority focus markets include: • Indonesia • Egypt • France • United States • China	1					• At least two single-country delegations to focus markets organized each year • Participation in at least three new trade fairs • At least 10 business-to-business meetings held with potential buyers during each visit	TDAP	• PTA (SZ) • PLGMEA • PGMEA	PKR 100,000,000 $350,877
Strategic objective 3 total										**PKR 157,000,000 $550,877**
Grand total										**PKR 3,717,900,000 $13,045,263**

Annex I: Full list of participants in the public-private consultations

Participant name	Organization	Designation
Dr Abdul Manan Khokhar	DoLF	Director of Research
Dr Ishaque Ahmed Ansari	Bureau of Statistics	Director General
Mr Abdul Razzak	Sindh Tourism Development Corporation	Deputy Director
Mr Abdul Salam	PLGMEA (SZ)	Vice-Chair
Mr Abdullah Aman	Hafiz Tannery	Partner
Mr Abdullah Zaidi	Investment Department	Director, Doing Business Reforms Implementation Unit
Mr Ahsan Morai	DoIC	Section Development Officer
Mr Ali Bux Soomro	Pakistan Standards and Quality Control Authority	Director, Conformity
Mr Anis Ahmed Khan	Planning and Development Department	Chief (Industries) Section
Mr Atif Ghayas	Sindh Small Industries Corporation	
Mr Aziz Ahmed	AMA Leather Industry	Chair, PTA (SZ)
Mr Farooq Ahmad	Madina Oasis Leather	Owner
Mr Fawad Shaikh	Planning and Development Department	Member (Natural Resources)
Mr Ghanwer Ali Khan Isran	Provincial Assembly of Sindh	Parliamentary Secretary: Law, Parliamentary Affairs
Mr Gulzar Firoz	PTA / United Nations Industrial Development Organization Korangi Solid Waste Management Project	President, Environmental Society
Mr Imran Ahmad	State Bank of Pakistan	Senior Officer
Mr Khizar Pervaiz	SEDF	Chief Executive Officer.
Mr Khurram Ikram	TDAP	Deputy Director, Leather
Mr M. Saleem Ahmed	Pak Leather Crafts	Member, Executive Committee PTA; Chair, PLGMEA (SZ)
Mr Muhammad Ashraf Palari	Pakistan Standards and Quality Control Authority	Director, Standards
Mr Muhammad Junaid	Essential Element Leather	Team Lead and Creative Head
Mr Muhammad Shafi	M/S Mateen Brothers	Chair, PTA Central
Mr Muhammad Yousif Baloch	STEVTA	Additional Director
Mr Rana Muhammed Ijaz	Rana Brothers Tannery	Owner
Mr Rashid Zahur	Noor Leather Garments	Senior Vice-President
Mr Rehan Shaikh Hannan	M/s. Khas (Pvt.) Ltd	Owner
Mr Riaz Ahmed	Directorate General of Trade Organizations	Director General (Regulator of Trade Organizations)
Mr Sheikh Ejaz Ahmed	Bombal Leathers	Chair of NILT
Mr Sheikh Muhammad Imran	King Leather	Partner
Mr Waqar Hussain Phulpoto	SEPA	Additional Director General, Director (Technical)
Mr Yousuf Shafiq	YSA Trading	Vice-Chair, PTA (SZ)

Annex II: Policy and regulatory framework

Table A1: Government policy interventions at the national level in the sector

Name of policy / law / regulation	Date enacted / amended	Relevant responsible government institution
Local supply of raw H&S exempted from sales tax	Federal budget 2022/23	MoC / Federal Board of Revenue
Reduction in Customs duty and additional Customs duty on 10 tariff lines pertaining to direct and reactive dyes	Federal budget 2022/23	MoC
To incentivize the footwear industry, Customs duties have been reduced on different categories of other woven fabrics and artificial flowers / foliage of other materials	Federal budget 2022/23	MoC
Duty drawback rates on the manufacture and export of certain finished leather products increased. Duty drawback is a reimbursement of Customs duties paid on the imports of raw materials used in the manufacture of finished goods. The finished goods include: • Finished leather of goat or sheep – drawback rate increased from 1.06% to 1.78% of FOB value • Finished leather of cow or buffalo hide – drawback rate increased from 2.38% to 3.73% of FOB value	SRO 460 (I) 2020	Ministry of Finance, Revenue and Economic Affairs
Raw H&S, wet-blue, dry 'crust' state, full grain or semi-finished leather, importable subject to quarantine requirements of the Animal Quarantine Department and National Food Security and Research, Government of Pakistan.	SRO 1067 (I)/2017	MoC
Additional Customs duty of 2% on imports of basic raw materials	SRO 670 (I)/2019	Ministry of Finance, Revenue and Economic Affairs
Collection of Export Development Surcharge @ 0.25% since 1991	2003	Ministry of Finance, Revenue and Economic Affairs
Customs duty of 15% on raw and wet-blue H&S	SRO 645 (I)/2018	Ministry of Finance, Revenue and Economic Affairs
The Economic Coordination Committee has approved a Local Taxes and Levies Drawback (Non-Textile) Scheme for the Leather Sector FY 2021–2026 for the following articles: • Finished leather (4%) • Footwear (4%) • Apparel (2%) • Made ups (1.5%) • Market diversification (additional) (2%)	SRO 7II (I)/2018	MoC
Increased additional Customs duty on imported goods from 1% to 2%. Exceptions include imports under the SME and Export-Oriented Units.	SRO 630 (I)/2018	Ministry of Finance, Revenue and Economic Affairs
Increased regulatory duty on import of goods: • HS 4202: Trunks – 20% • HS 4203: Articles of apparel and clothing – 50%	SRO 1067 (I)/2017	Ministry of Finance, Revenue and Economic Affairs

Source: Author compiled.

Table A2: Laws and regulations impacting the leather sector at the provincial level

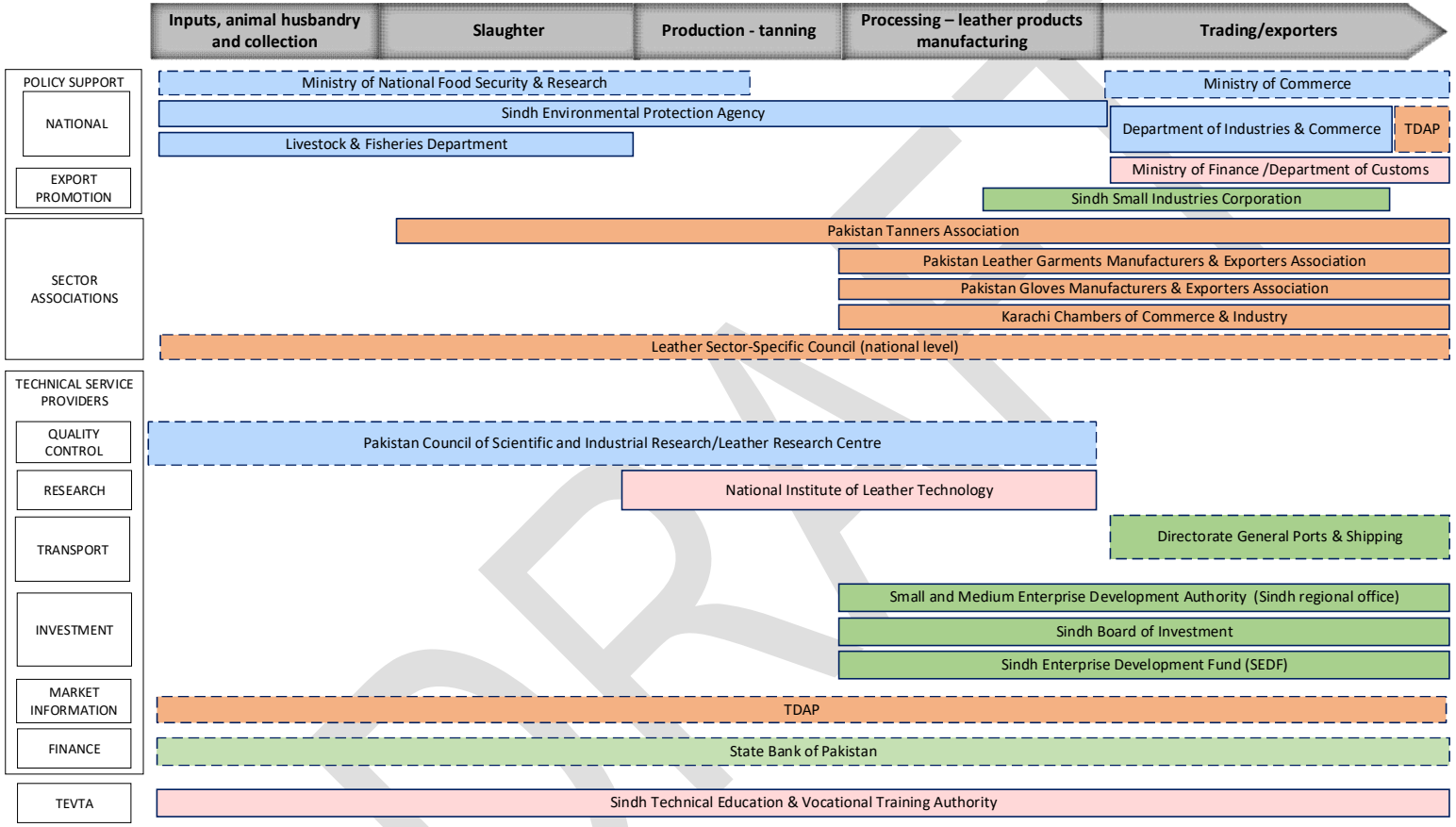
Name of the law / regulation	Objective / aims	Impact on the sector
Sindh Local Government Act, 2013	To rationalize and reorganize the local government system in the Province of Sindh	The Act outlines the functions to be performed by private sector corporations, which includes slaughtering of animals, tanning of H&S and disposal of waste.
The Sindh Livestock Breeding Act, 2016 (notified in April 2017)	Regulates livestock breeding services in Sindh. Provides for the establishment of a Livestock Breeding Services Authority and the creation of a Livestock Fund. The Authority shall issue standards and procedures for: • The selection of breeding animals • The collection and production facilities • The use of semen, ova and embryos • Artificial insemination technicians. The Act provides for recording pedigrees and performance.	Improve the genetic potential of breeds and protect indigenous breeds of livestock in Sindh.
The Sindh Livestock Registration and Trade Authority Act, 2017 (notified in 2018)	Provides for the establishment of the Sindh Livestock Registration and Trade Authority for livestock registration, tagging and identification, and the development of activities related to livestock products, the trade and export thereof, in the Province of Sindh. Establishes a system of animal registration and identification with a traceability framework based on international standards.	Ensures the quality of animals and animal products to enhance the trade, marketability and market value of animals and animal produce.
The Sindh Animals Slaughter Control (Amendment) Act, 2004	Prohibits the slaughter of useful animals and regulates the slaughter of other animals.[13]	Sets regulations and restrictions on the slaughtering of animals. The governance of slaughterhouses currently falls under local government. There is a need to amend this Act so slaughterhouses come under the purview of DoLF.
The Sindh Solid Waste Management Act, 2021	Provides for the collection and disposal of solid waste, arranges effective delivery of sanitation services, and provides for a pollution-free environment and matters ancillary thereto; and for the purpose of establishing Solid Waste Management Boards in the Province of Sindh.	Increasing regulation and enforcement related to waste management, potentially leading to fines for non-compliance.
Sindh Environmental Protection Act, 2014	Provides protection, conservation, rehabilitation and improvement of the environment, for the prevention and control of pollution, and promotion of sustainable development.	Environmental standards, proper disposal of hazardous waste, and environmental impact assessments.
Sindh Environmental Quality Standards (Self-Monitoring and Reporting by Industry) Rules, 2014	Establishes self-monitoring and reporting systems that comply with the environmental standards set by SEPA.	May increase compliance costs but promotes environmental improvements in the sector.
Sindh Workers Welfare Fund Act 2014	Ensures the social and economic welfare of workers and their families, to promote social justice and equitable distribution of resources.	Employers contribute to a welfare fund, which can be used for social security, health care, education, housing and other welfare measures.
Sindh Wildlife Protection, Preservation, Conservation and Management Act, 2020	Provides for the protection, conservation, preservation and sustainable use of wildlife for the establishment, management and maintenance of protected areas in the Province of Sindh.	Regulates the use of animal H&S in the leather industry and prohibits the use of certain endangered species.

Source: Author compiled.

[13] Useful animals means: i) a female sheep below the age of one year and six months; ii) a female sheep of the age exceeding one year and six months but not exceeding four years, which is pregnant or fit for breeding purposes; iii) any female animal, other than sheep, below three years of age; iv) any female animal, other than sheep, which is pregnant or in milk or fit for breeding purposes; v) any female animal, other than sheep, between three and ten years of age, which is fit for draught purposes.

Annex III: Institutional support mapping and adjustments

Figure A1: Institutional support mapping



Legend:

Federal-level institution

Provincial-level institution

Policy support network

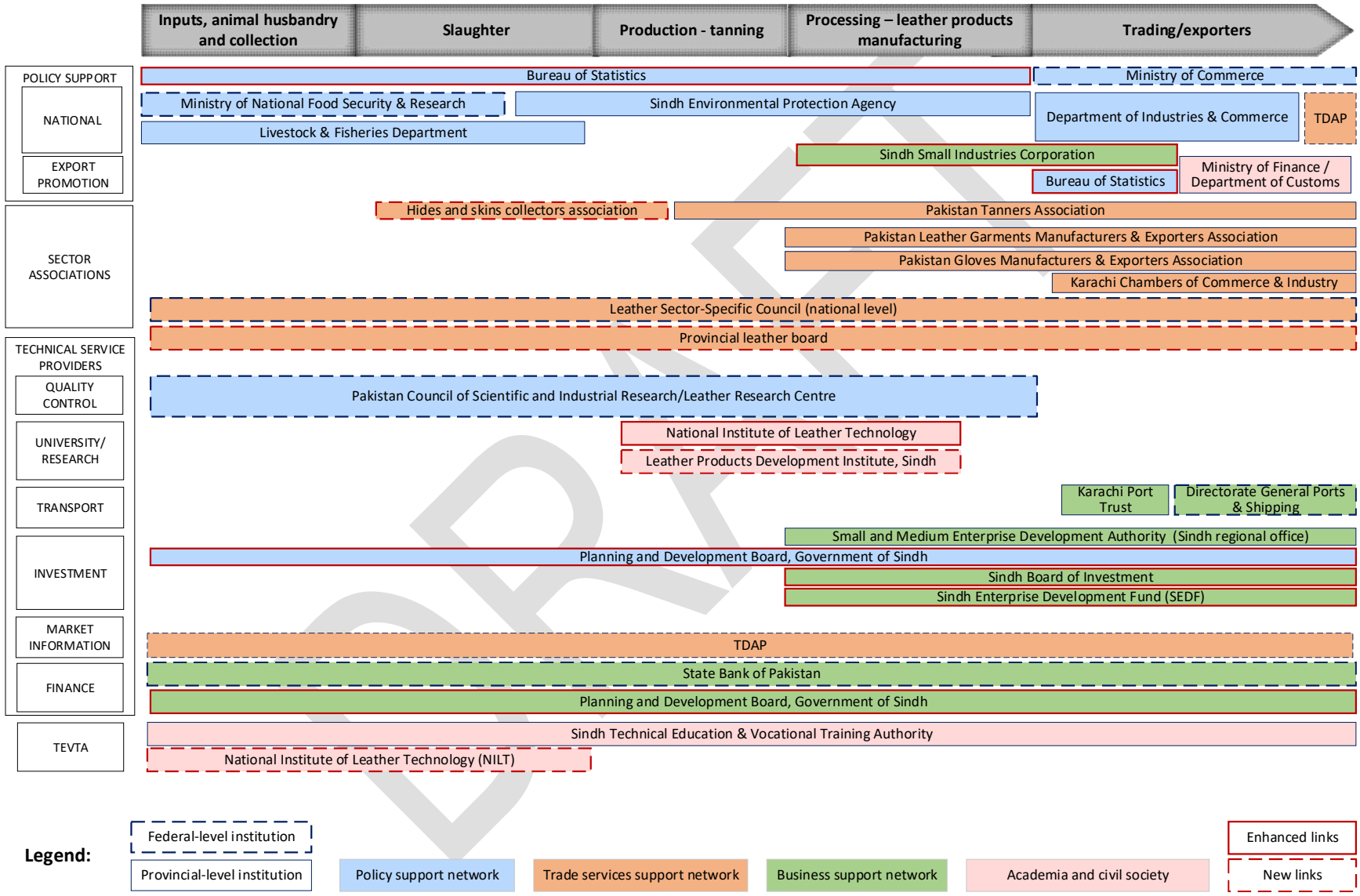
Trade services support network

Business support network

Academia and civil society

Source: ITC.

Figure A2: Institutional support adjustments



Source: ITC

Annex IV: Identified outputs and inputs of the leather industry

S. no.	Six-digit HS code	Type of input or output	Description at 6-digit HS level
			Final products
1	420100	Output	Saddlery and harness for any animal (including traces, leads, knee pads, muzzles, saddle cloths, saddle bags, dog coats and the like), of any material
2	420211	Output	Trunks, suitcases, vanity cases, executive cases, briefcases, school satchels, spectacle cases, binocular cases, camera cases, musical instrument cases, gun cases, holsters and similar containers; travelling bags, insulated food or beverages bags, toile-With outer surface of leather, of composition leather or of patent leather
3	420221	Output	Handbags, whether or not with shoulder straps, incl. those without handles, with outer surface of leather, composition leather or patent leather
4	420231	Output	Wallets, purses, key-pouches, cigarette-cases, tobacco-pouches and similar articles carried in the pocket or handbag, with outer surface of leather, composition leather or patent leather
5	420291	Output	Travelling-bags, insulated food or beverage bags, toilet bags, rucksacks, shopping-bags, map-cases, tool bags, sports bags, jewellery boxes, cutlery cases, binocular cases, camera cases, musical instrument cases, gun cases, holsters and similar containers, with outer surface of leather, composition leather or patent leather (excl. trunks, briefcases, school satchels and similar containers, handbags and articles normally carried in the pocket or handbag)
6	420310	Output	Articles of apparel and clothing accessories, of leather or of composition leather.-Articles of apparel
7	420321	Output	Articles of apparel and clothing accessories, of leather or of composition leather.-Specially designed for use in sports
8	420329	Output	Articles of apparel and clothing accessories, of leather or of composition leather.-Other
9	420330	Output	Articles of apparel and clothing accessories, of leather or of composition leather.-Belts and bandoliers
10	420340	Output	Articles of apparel and clothing accessories, of leather or of composition leather.-Other clothing accessories
11	420500	Output	Other articles of leather or of composition leather
12	640312	Output	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather.-Ski boots, cross-country ski footwear and snowboard boots
13	640319	Output	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather. -Other
14	640320	Output	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather. -Footwear with outer soles of leather, and uppers which consist of leather straps across the instep and around the big toe
15	640340	Output	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather. -Other footwear, incorporating a protective metal toecap
16	640351	Output	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather.-Covering the ankle
17	640359	Output	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather. -Other
18	640391	Output	Footwear with outer soles of rubber, plastics or composition leather, with uppers of leather, covering the ankle (excl. incorporating a protective metal toecap, sports footwear, orthopaedic footwear and toy footwear)
19	640399	Output	Footwear with outer soles of rubber, plastics or composition leather, with uppers of leather (excl. covering the ankle, incorporating a protective metal toecap, sports footwear, orthopaedic footwear and toy footwear)
20	640411	Output	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of textile materials.-Sports footwear; tennis shoes, basketball shoes, gym shoes, training shoes and the like
21	640419	Output	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of textile materials. -Other
22	640420	Output	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of textile materials. -Footwear with outer soles of leather or composition leather
23	640510	Output	Other footwear.-With uppers of leather or composition leather
24	940140	Output	Seats, convertible into beds (excluding garden seats and camping equipment, and medical, dental or surgical furniture)
25	940161	Output	Upholstered seats, with wooden frames (excl. convertible into beds)
26	940171	Output	Upholstered seats, with metal frames (excl. seats for aircraft or motor vehicles, swivel seats with variable height adjustments and medical, dental or surgical furniture)
27	410411	Processed	Full grains, unsplit and grain splits, in the wet state "incl. wet-blue", of hides and skins of bovine "incl. buffalo" or equine animals, tanned, without hair on (excl. further prepared)
28	410419	Processed	Hides and skins of bovine "incl. buffalo" or equine animals, in the wet state "incl. wet-blue", tanned, without hair on, whether or not split (excl. further prepared and full grains, unsplit and grain splits)
29	410441	Processed	Full grains leather, unsplit and grain splits leather, in the dry state "crust", of hides and skins of bovine "incl. buffalo" or equine animals, without hair on (excl. further prepared)
30	410449	Processed	Hides and skins of bovine "incl. buffalo" or equine animals, in the dry state "crust", without hair on, whether or not split (excl. further prepared and full grains, unsplit and grain splits)
31	410510	Processed	Tanned or crust skins of sheep or lambs, without wool on, whether or not split, but not further prepared.-In the wet state (including wet-blue)

32	410530	Processed	Tanned or crust skins of sheep or lambs, without wool on, whether or not split, but not further prepared.-In the dry state (crust)
33	410621	Processed	Tanned or crust H&S of other animals, without wool or hair on, whether or not split, but not further prepared.-In the wet state (including wet-blue)
34	410622	Processed	Tanned or crust H&S of other animals, without wool or hair on, whether or not split, but not further prepared.-In the dry state (crust)
35	410631	Processed	Hides and skins of swine, in the wet state (incl. wet-blue), tanned, without wool on, whether or not split (excl. further prepared and pre-tanned only)
36	410632	Processed	Hides and skins of swine, in the dry state (crust), without wool on, whether or not split (excl. further prepared and pre-tanned only)
37	410640	Processed	Tanned or crust H&S of other animals, without wool or hair on, whether or not split, but not further prepared.-Of reptiles
38	410691	Processed	Hides and skins of antelopes, deer, elks, elephants and other animals, incl. sea animals, without wool or hair on, and leather of hairless animals, in the wet state "incl. wet-blue", tanned, whether or not split (excl. further prepared and of bovine and equine animals, sheep and lambs, goats and kids, swine and reptiles, and pre-tanned only)
39	410692	Processed	Hides and skins of antelopes, deer, elks, elephants and other animals, incl. sea animals, without wool or hair on, and leather of hairless animals, in the dry state "crust", whether or not split (excl. further prepared and of bovine and equine animals, sheep and lambs, goats and kids, swine and reptiles, and pre-tanned only)
40	410711	Processed	Leather further prepared after tanning or crusting, including parchment-dressed leather, of bovine (including buffalo) or equine animals, without hair on, whether or not split, other than leather of heading 41.14. -Full grains, unsplit
41	410712	Processed	Leather further prepared after tanning or crusting, including parchment-dressed leather, of bovine (including buffalo) or equine animals, without hair on, whether or not split, other than leather of heading 41.14.-Grain splits
42	410719	Processed	Leather further prepared after tanning or crusting, including parchment-dressed leather, of bovine (including buffalo) or equine animals, without hair on, whether or not split, other than leather of heading 41.14.-Other
43	410792	Processed	Grain splits leather "incl. parchment-dressed leather", of the portions, strips or sheets of hides and skins of bovine "incl. buffalo" or equine animals, further prepared after tanning or crusting, without hair on (excl. chamois leather, patent leather and patent laminated leather, and metallised leather)
44	410799	Processed	Leather "incl. parchment-dressed leather" of the portions, strips or sheets of hides and skins of bovine "incl. buffalo" or equine animals, further prepared after tanning or crusting, without hair on (excl. unsplit full grains leather, grain splits leather, chamois leather, patent leather and patent laminated leather, and metallised leather)
45	411200	Processed	Leather further prepared after tanning or crusting, including parchment-dressed leather, of sheep or lamb, without wool on, whether or not split, other than leather of heading 41.14.
46	411310	Processed	Leather further prepared after tanning or crusting, including parchment-dressed leather, of other animals, without wool or hair on, whether or not split, other than leather of heading 41.14.-Of goats or kids
47	411320	Processed	Leather further prepared after tanning or crusting, including parchment-dressed leather, of other animals, without wool or hair on, whether or not split, other than leather of heading 41.14.-Of swine
49	411330	Processed	Leather further prepared after tanning or crusting, including parchment-dressed leather, of other animals, without wool or hair on, whether or not split, other than leather of heading 41.14.-Of reptiles
49	411390	Processed	Leather further prepared after tanning or crusting, including parchment-dressed leather, of other animals, without wool or hair on, whether or not split, other than leather of heading 41.14.-Other
50	411410	Processed	Chamois (including combination chamois) leather; patent leather and patent laminated leather; metallized leather.-Chamois (including combination chamois) leather
51	411420	Processed	Chamois (including combination chamois) leather; patent leather and patent laminated leather; metallized leather.-Patent leather and patent laminated leather; metallized leather
52	411510	Processed	Composition leather with a basis of leather or leather fibre, in slabs, sheets or strip, whether or not in rolls; parings and other waste of leather or of composition leather, not suitable for the manufacture of leather articles; leather dust, powder.
			Intermediate products
53	410120	Primary	Raw H&S of bovine (including buffalo) or equine animals (fresh, or salted, dried, limed, pickled or otherwise preserved, but not tanned, parchment-dressed or further prepared), whether or not dehaired or split.-Whole H&S, of a weight per skin not exceeding 8 kg when simply dried, 10 kg when drysalted, or 16 kg when fresh, wetsalted or otherwise preserved
54	410150	Primary	Raw H&S of bovine (including buffalo) or equine animals (fresh, or salted, dried, limed, pickled or otherwise preserved, but not tanned, parchment-dressed or further prepared), whether or not dehaired or split.-Whole H&S, of a weight exceeding 16 kg
55	410190	Primary	Raw H&S of bovine (including buffalo) or equine animals (fresh, or salted, dried, limed, pickled or otherwise preserved, but not tanned, parchment-dressed or further prepared), whether or not dehaired or split.-Other, including butts, bends and bellies
56	410210	Primary	Raw skins of sheep or lambs (fresh, or salted, dried, limed, pickled or otherwise preserved, but not tanned, parchment-dressed or further prepared), whether or not with wool on or split, other than those excluded by Note 1 (c) to this Chapter.-With wool on
57	410221	Primary	Raw skins of sheep or lambs (fresh, or salted, dried, limed, pickled or otherwise preserved, but not tanned, parchment-dressed or further prepared), whether or not with wool on or split, other than those excluded by Note 1 (c) to this Chapter.-Pickled
58	410229	Primary	Raw skins of sheep or lambs (fresh, or salted, dried, limed, pickled or otherwise preserved, but not tanned, parchment-dressed or further prepared), whether or not with wool on or split, other than those excluded by Note 1 (c) to this Chapter.-Other

59	410320	Primary	Other raw H&S (fresh, or salted, dried, limed, pickled or otherwise preserved, but not tanned, parchment-dressed or further prepared), whether or not dehaired or split, other than those excluded by Note 1 (b) or 1 (c) to this Chapter.-Of reptiles
60	410330	Primary	Other raw H&S (fresh, or salted, dried, limed, pickled or otherwise preserved, but not tanned, parchment-dressed or further prepared), whether or not dehaired or split, other than those excluded by Note 1 (b) or 1 (c) to this Chapter.-Of swine
61	410390	Primary	Other raw H&S (fresh, or salted, dried, limed, pickled or otherwise preserved, but not tanned, parchment-dressed or further prepared), whether or not dehaired or split, other than those excluded by Note 1 (b) or 1 (c) to this Chapter.-Other
62	411520	Primary	Composition leather with a basis of leather or leather fibre, in slabs, sheets or strip, whether or not in rolls; parings and other waste of leather or of composition leather, not suitable for the manufacture of leather articles; leather dust, powder and -Parings and other waste of leather or of composition leather, not suitable for the manufacture of leather articles; leather dust, powder and flour
63	283010	Chemical	Sulfides; polysulphides, whether or not chemically defined.-Sodium sulfides
64	284130	Chemical	Salts of oxometallic or peroxometallic acids.-Sodium dichromate
65	292910	Chemical	Compounds with other nitrogen function.-Isocyanates
66	320110	Chemical	Tanning extracts of vegetable origin; tannins and their salts, ethers, esters and other derivatives.-Quebracho extract
67	320120	Chemical	Tanning extracts of vegetable origin; tannins and their salts, ethers, esters and other derivatives.-Wattle extract
68	320190	Chemical	Tanning extracts of vegetable origin; tannins and their salts, ethers, esters and other derivatives.-Other
69	320210	Chemical	Synthetic organic tanning substances; inorganic tanning substances; tanning preparations, whether or not containing natural tanning substances; enzymatic preparations for pre-tanning.-Synthetic organic tanning substances
70	320411	Chemical	Synthetic organic colouring matter, whether or not chemically defined; preparations as specified in Note 3 to this Chapter based on synthetic organic colouring matter; synthetic organic products of a kind used as fluorescent brightening agents or as lumin-Disperse dyes and preparations based thereon
71	320412	Chemical	Synthetic organic colouring matter, whether or not chemically defined; preparations as specified in Note 3 to this Chapter based on synthetic organic colouring matter; synthetic organic products of a kind used as fluorescent brightening agents or as lumin-Acid dyes, whether or not premetallized, and preparations based thereon; mordant dyes and preparations based thereon
72	320413	Chemical	Synthetic organic colouring matter, whether or not chemically defined; preparations as specified in Note 3 to this Chapter based on synthetic organic colouring matter; synthetic organic products of a kind used as fluorescent brightening agents or as lumin-Basic dyes and preparations based thereon
73	320414	Chemical	Synthetic organic colouring matter, whether or not chemically defined; preparations as specified in Note 3 to this Chapter based on synthetic organic colouring matter; synthetic organic products of a kind used as fluorescent brightening agents or as lumin-Direct dyes and preparations based thereon
74	320416	Chemical	Synthetic organic colouring matter, whether or not chemically defined; preparations as specified in Note 3 to this Chapter based on synthetic organic colouring matter; synthetic organic products of a kind used as fluorescent brightening agents or as lumin-Reactive dyes and preparations based thereon
75	320417	Chemical	Synthetic organic colouring matter, whether or not chemically defined; preparations as specified in Note 3 to this Chapter based on synthetic organic colouring matter; synthetic organic products of a kind used as fluorescent brightening agents or as lumin-Pigments and preparations based thereon
80	320611	Chemical	Other colouring matter; preparations as specified in Note 3 to this Chapter, other than those of heading 32.03, 32.04 or 32.05; inorganic products of a kind used as luminophores, whether or not chemically defined.-Containing 80 % or more by weight of titanium dioxide calculated on the dry matter
81	321000	Chemical	Other paints and varnishes (including enamels, lacquers and distempers); prepared water pigments of a kind used for finishing leather.-Other paints and varnishes (including enamels, lacquers and distempers); prepared water pigments of a kind used for finishing leather.
82	340211	Chemical	Organic surface-active agents (other than soap); surface-active preparations, washing preparations (including auxiliary washing preparations) and cleaning preparations, whether or not containing soap, other than those of heading 34.01.-Anionic
83	340212	Chemical	Organic surface-active agents (other than soap); surface-active preparations, washing preparations (including auxiliary washing preparations) and cleaning preparations, whether or not containing soap, other than those of heading 34.01.-Cationic
84	340213	Chemical	Organic surface-active agents (other than soap); surface-active preparations, washing preparations (including auxiliary washing preparations) and cleaning preparations, whether or not containing soap, other than those of heading 34.01.-Non-ionic
85	340311	Chemical	Lubricating preparations (including cutting-oil preparations, bolt or nut release preparations, anti-rust or anti-corrosion preparations and mould release preparations, based on lubricants) and preparations of a kind used for the oil or grease treatment o-Preparations for the treatment of textile materials, leather, furskins or other materials
86	340391	Chemical	Textile lubricant preparations and preparations of a kind used for the oil or grease treatment of leather, furskins or other material not containing petroleum oil or bituminous mineral oil
87	340510	Chemical	Polishes and creams, for footwear, furniture, floors, coachwork, glass or metal, scouring pastes and powders and similar preparations (whether or not in the form of paper, wadding, felt, non-wovens, cellular plastics or cellular rubber, impregnated, coated)-Polishes, creams and similar preparations for footwear or leather
88	350790	Chemical	Enzymes; prepared enzymes not elsewhere specified or included.-Other

89	380993	Chemical	Finishing agents, dye carriers to accelerate the dyeing or fixing of dyestuffs and other products and preparations (for example, dressings and mordants), of a kind used in the textile, paper, leather or like industries, not elsewhere specified or included-Of a kind used in the leather or like industries

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