PAKISTAN LEATHER SECTOR:
TRACEABILITY, CLEANER PRODUCTION AND CIRCULARITY

PILOTING DIGITAL
TRACEABILITY

A FIRST STEP FOR PAKISTAN'S LEATHER SECTOR

SMEP | UN trade & development | UK International Development — Partnership | Progress | Prosperity | WWF

Overview

Pakistan's leather sector, the country's third-largest export industry, is entering a pivotal phase of transformation. As global markets increasingly demand deforestation-free, transparent, and ethically sourced supply chains, the absence of a structured traceability system poses a growing risk to competitiveness and market access.

Insights

Pakistan's leather sector has traditionally relied on fragmented paper records and basic trader lists, lacking a structured digital traceability system. Meanwhile, shifting legislations in the EU, US, and UK increasingly demand deforestation-free and ethically verified supply chains, and buyers are moving from trust-based sourcing to data-driven verification. In this context, the lack of traceability is not merely a technical gap; it represents a strategic risk to Pakistan's export competitiveness and long-term market access, especially as the country is currently classified as a standard-risk exporter under the EUDR, which will become mandatory by December 2026. This project 'Pakistan Leather Sector: Traceability, Cleaner Production and Circularity' recognizes that traceability is now essential for sustaining growth in the global leather trade and aims to address this gap through the piloting of a digital traceability toolkit.
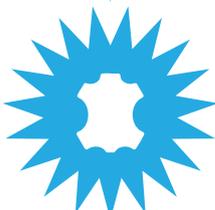
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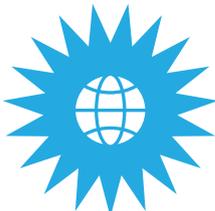
Global regulatory pressure
Anticipated deforestation-free requirements such as EUDR and weak compliance readiness.

Market access and competitiveness
Lack of transparency to secure and expand access to high-value export markets.

Advancing supply chain accountability
Absence of stronger due diligence systems through verified, origin-linked data.

Fragmented and manual record keeping
Reliance on paper-based, fragmented records.

What we have delivered under the project

Under the SMEP Programme, WWF-Pakistan, in partnership with Information Technology University (ITU), Punjab Agriculture and Meat Company (PAMCO), and Leather Field Pvt. Ltd., designed and piloted Pakistan's first digital leather traceability toolkit, tailored to the country's unique value chain. The project established a centralized digital system for registering animal suppliers, capturing key details such as the owner's name, address, contact number, CNIC, and old batch number (if applicable). During registration, users had to select their Bara number, service type, customer type, slaughterhouse, account type, hawker, and status, and specify the number of expiry days, moving from fragmented paper records to a structured digital tracking system.

Previously, traceability typically began at the tannery gate, with internal batch tracking but limited upstream visibility of slaughterhouses or suppliers. In the context of emerging regulations such as the EU Deforestation Regulation (EUDR), this upstream gap posed a significant risk. The digital traceability toolkit bridges this disconnect, linking animal supplier registration, slaughterhouse data, and tannery operations into one integrated framework, shifting the sector from internal tracking to verified, supplier-level transparency.

Now, at the PAMCO slaughterhouse, each hide is assigned a unique digital code at the point of slaughter, capturing critical animal supplier information. As hides move to tanneries, these codes are scanned and integrated into a centralized database, ensuring continuity of information. A permanent identification stamping mechanism maintains traceability throughout complex chemical and mechanical processing stages within the tannery. By digitally connecting suppliers, tanneries, and destination export markets, the project has laid the foundation for supplier-level traceability, a critical first step towards full supply chain transparency in Pakistan's leather sector.

| Before	After
No structured digital system in place.	Centralised digital traceability piloted.
Manual supplier records were limited to names and number of animals.	More than 330 active suppliers are digitally registered.
Fragmented, manual record keeping with limited verification.	Each hide is assigned a unique ID at supplier level in the slaughterhouse, and a permanent ID is allotted and stamped at the tannery, linked to the supplier ID for upstream traceability. Till now, more than 150,000 hides are tagged to be used as raw materials by the tanneries.
Tracking typically started at the tannery gate and remained within the fenceline.	Traceability is piloted from supplier to tannery to export destination.

Significance

Piloting digital traceability marks an important step for Pakistan's leather sector, laying the foundation for scaling digital systems, improving transparency, supporting compliance readiness, and building buyer confidence in the integrity of leather from Pakistan.

Long term vision

To trace each hide back to the animal's birth, ensuring every piece of leather tells a full story, one that is ethical, transparent, and sustainable.

Pakistan's first digitally traceable leather jacket has been manufactured.
It tells about the journey of the jacket, including:

Raw material

Processing and finishing

Stitching

Geolocation mapping

Certifications
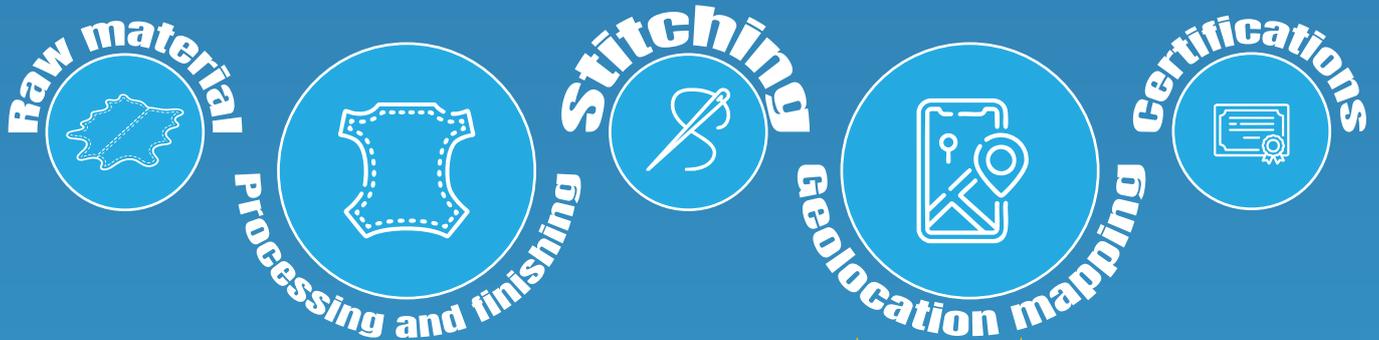
Scan to see its journey from source to final product

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