



EXECUTIVE SUMMARY

Socio-economic and environmental analysis of the effects of Regulation 2023/1115/EU on the European leather sector

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This study examines the possible effects that the listing of leather in the scope of Regulation 2023/1115/EU for deforestation-free supply chains (EUDR) can generate on the leather trade and industry and whether this is likely to bring about environmental benefits.

The EUDR is the Green Deal initiative to curb EU-driven deforestation for reducing its impact on climate change. It identifies a number of commodities and their derived products as drivers of deforestation and sets mandatory due diligence requirements for operators that imply full traceability of those goods back to the plot of land where they originated. Leather is listed next to meat as the derived products from the commodity “cattle”.

Although the European Commission’s impact assessment of the EUDR on the commodities to be included in the scope, examined the impact on cattle, it never addressed the impact on leather. This study aims to contribute to the review process of the scope of the EUDR.

The study is structured in three parts: The first part consists of a critical **analysis of the technical-scientific literature** inherent to the connections between the leather sector and deforestation. In addition to this desk activity, a series of **interviews** were carried out with public and private stakeholders for completing the picture regarding. The second part of the project focuses on **socio-economic impacts** while the third part of this study concerns the **analysis of environmental impacts**. Several scenarios were developed to estimate the socio-economic effects and the environmental consequences. These were based on different hypotheses regarding likely trade deviation and product substitution.

The research provided following findings:

None of the studies scrutinised denies the connection between cattle raising and deforestation. Indeed, the review of scientific literature confirms the link between livestock and deforestation. However, with regard to the connection between leather and deforestation, **no authors have found a direct link**. If there are some authors affirming that there is an indirect link between the two (embedded deforestation) it is because of its economic value in terms of exports – or, in general, the value of the leather industry – and the related profit that slaughterhouses make by selling hides. But no author has provided data or performed quantitative analysis to support the hypothesis of a link, and some authors even state that the problem of deforestation is extended to leather only by ‘proxy’. In fact, the majority declares that it is difficult to draw a conclusion on this matter from the evidence



available up to now. On one point there seems to be convergence though, as most studies agree that **reductions of the leather market generate an increase in the number of raw hides sent to landfill disposal**. The majority of documents and authors support the classification of hides as by-products of cattle.

Similar results were obtained through the interviews. The large majority of the interviewees support the position that there is a connection between cattle raising and deforestation in some parts of the world such as the Brazilian Amazon. They also agree that **the primary output of cattle raising is meat**, with dairy products also mentioned as a significant output. Raw hides are predominantly viewed as by-products of the slaughter process, with some stakeholders referring them as waste products due to their low value compared to meat, and others as co-products due to the high value of the finished leather products. A combination of factors, including market demand, hide quality, and economic considerations, influences the final destination of raw hides, whether it be in leather production or, in some cases, landfills. Interviewees understand that the potential for tanneries to influence environmental practices within the cattle raising and slaughterhouse industries depends upon a multitude of factors, including economic incentives, the structure of the industry, and the capacity for collaborative and integrated approaches to supply chain management.

The majority of interviewees support the position that **there is not a relationship between leather and deforestation**. Among those who believe the contrary, the majority argues that this relationship is indirect.

The interviews also revealed that only a limited number of larger companies with a vertically integrated production system would be able to trace the entire supply chain up to the animals' birth farm(s), while most tanneries would be able to trace back goods to the slaughterhouse. The main barriers to the implementation of a leather traceability system up to the birth farm of cattle are the by-product/waste nature of cattle hides and skins, the complexity and fragmented nature of the supply chain and the costs involved in setting up such systems. The majority of interviewees predict the **shift of the leather market away from Europe to countries where traceability is not required**. They anticipate a negative impact on the European leather sector and increased costs as potential socio-economic impacts resulting from the eventual implementation of traceability systems.

The entry into application of Regulation 2023/1115/EU risks creating a **supply shock in the cattle hide market**. The loss of extra-EU supplies incapable to comply with the EUDR traceability requirements will impact market prices materializing for EU operators in increased competition and



additional costs for their cattle-leather raw materials. Conversely, with the loss of the EU market for their exports, these extra-EU raw materials suppliers are likely to result in an excess of supply on the open market and a drop in raw material prices on the global market, widening the price differential for leather products between leather products made with traceable leather in the EU and those imported into the EU without traceability. The main quantitative output of this socio-economic section was, thus, the analysis of the effects of such a price increase on the demanded quantities in the client sectors by examining the demand elasticity to prices.

According to the proposed methodology, a scenario analysis sees a **collapse in demand for leather between 9.3% and 15.5% in the face of a price increase of inputs between 6% and 10%**, in line also with what was documented by interviews with experts.

A 15% decline in demand is likely to have **substantial implications for wealth creation and adversely impact businesses and employment within the leather industry**. Notably, to find a comparable demand shock in international markets, one must reference the downturn experienced by Italy and Spain during the 2012 debt crisis, which saw demand shocks of 18% and 26%, respectively. In that instance, the shock was transient, as it was widespread across sectors and countries thus not resulting in a relative loss of competitiveness.

In contrast, the demand shock induced by the EUDR, coupled with a significant loss in competitiveness relative to extra EU players, is expected to have long-lasting effects. The persistent nature of such a downturn suggests that the industry may face long-term challenges in maintaining its workforce and supporting local communities dependent on leather production. Further research is needed to quantify the specific impacts on employment and to identify the most effective strategies for addressing the social consequences of the demand shock.

The qualitative analysis delves into the potential economic and social ramifications, focusing on the availability and pricing of bovine hides and leather, which are central to the European leather industry. The analysis warns of a **potential shortage of raw materials for EU tanneries** starting in 2025. In 2023, the EU imported substantial quantities of bovine raw hides, wet blue hides, and crust hides, primarily from extra-EU countries. These imports, which are at high risk of non-compliance with EUDR requirements, may lead to a projected **35% decrease in European leather production**. This reduction could cause the **closure of vulnerable companies**, resulting in **job losses** in an industry that currently comprises 1,500 companies and 35,000 employees, with an annual turnover of €7 billion.



The last part of this study evaluates the changes in environmental impact derived from the implementation in the leather sector of Regulation 2023/1115/EU. The study compares a baseline scenario, reflecting current trade and practices, with two alternative scenarios predicting market responses to the EUDR, including trade deviation, product substitution and raw hides/skins destruction.

The **baseline scenario considers current patterns of raw hides and skins imports from the USA and Brazil which are processed in European tanneries** using a mix of tanning technologies. The first **alternative scenario (A) considers a shift of leather processing to China**, while the **second scenario (B) redistributes processing between the USA and China and includes increased production of polyurethane leather-like materials (PU LLM) in Europe**.

Results indicate that **both alternative scenarios increase environmental impacts compared to the baseline**. Scenario A shows a 40% higher overall environmental footprint, and Scenario B shows a 36% increase. The most significant impacts are seen in acidification, climate change, particulate matter, resource use of fossils, and resource use of minerals and metals. Hotspot analysis reveals that **tanning processes, especially those conducted in China, and the production of PU LLM are the primary contributors to increased impacts**.

The study adopts two methodological choices for making results comparable. On the one hand, the upstream livestock sector is ignored in the LCA calculation, as part one of the study had revealed that the demand for leather did not drive livestock production or slaughter, and because in the LCA of PU LLM oil-based products benefit from system boundaries that do not include the environmental impacts of forming the raw material before extraction. This puts animal-based materials and oil-based materials on a same footing with regard to system boundaries. On the other hand, the reference flow for leather and PU LLM have been adjusted to reflect the relative durability of materials, as genuine leather typically has a longer lifespan than PU LLM.

The findings of this study reveal that:

- leather has a physical link to cattle, but its **by-product/waste nature disqualifies leather as a driver of deforestation**;
- the socio-economic consequences of the implementation of the EUDR by its scheduled application date are likely to materialize as a persistent **loss of competitiveness in international markets** which will drive a significant decrease in the demand from the client



- sector. This is expected to result in a **substantial adverse impact on the EU leather industry** in terms of wealth creation, business density and jobs;
- while the EUDR aims to mitigate deforestation risks, the inclusion of leather in its scope will not generate the expected environmental benefits and may inadvertently **increase other environmental burdens by shifting production geographically and increasing reliance on synthetic alternatives.**

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