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Recommendations, standards and deliverables supporting implementation:

Deliverables in support of implementation:

Deliverables in support of the outcomes of the seventieth Commission session

Economic Commission for Europe and Economic Commission for Latin America and the Caribbean Study: Improving the Sustainability of Used Clothing: Global, European and Chilean Perspectives

Executive Summary

Submitted by the secretariat

Summary

In 2023, the United Nations Economic Commission for Europe (ECE) and the Economic Commission for Latin America and the Caribbean (ECLAC) conducted a global study on second-hand clothing trade flows, with a focus on Europe as an origin and Chile as a destination.

The study contributes to the theme of the sixty-ninth Commission session “Promoting circular economy and sustainable use of natural resources in the ECE region”, and to the implementation of the Programme of Work of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) 2023-2024 (ECE/TRADE/C/CEFACT/2022/21).

This executive summary highlights preliminary findings and recommendations to improve the sustainability of used clothes worldwide, in Europe and Chile. The full ECE-ECLAC study report “Improving the Sustainability of Used Clothing: Global, European and Chilean Perspectives” will be published in 2024.

Document ECE/TRADE/C/CEFACT/2023/18 is submitted to the twenty-ninth session for information.



I. Executive summary

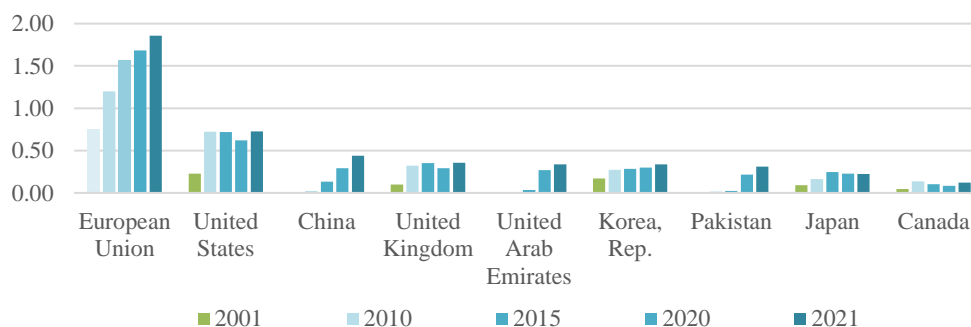
1. The fast-fashion revolution of the past several decades, facilitated by cheap synthetic fibres and low-wage labour, has led to massive increases in the production and consumption of low-quality textiles. Numerous studies have shown that the clothing industry ranks among those sectors emitting the most CO₂, polluting water and violating human rights. However, little research has been done to understand what happens to discarded clothes.

2. In this context, in 2023, the United Nations Economic Commission for Europe (ECE) and the Economic Commission for Latin America and the Caribbean (ECLAC) conducted a global study on used clothing flows, with a focus on Europe as an origin and Chile as a destination. The study contributes to the implementation of the UN/CEFACT Programme of Work 2023-2024¹. This executive summary highlights the main findings and recommendations to improve the sustainability of used clothes worldwide, in Europe and Chile.

3. Trade data show a rapid increase in global trade of used clothing. According to UN Comtrade, the globally traded volume of discarded clothes increased sevenfold over the past four decades, growing 10% on average each year. In 2021, the European Union (30%), China (16%), and the United States (15%) were the leading exporters, while Asia (28%, predominantly Pakistan), Africa (19%, especially Ghana and Kenya), and Latin America (16%, mainly Chile and Guatemala) were the main importers. European Union (EU) exports of used clothes tripled over the past two decades, from 550,000 to 1.7 million tons, and are projected to grow even faster as collection rates are expected to rise (see Figure 1).

Figure 1

Selected countries and regions: exports of used clothing, 2001-2021, million tons



Source: Based on UN Comtrade 2021 data

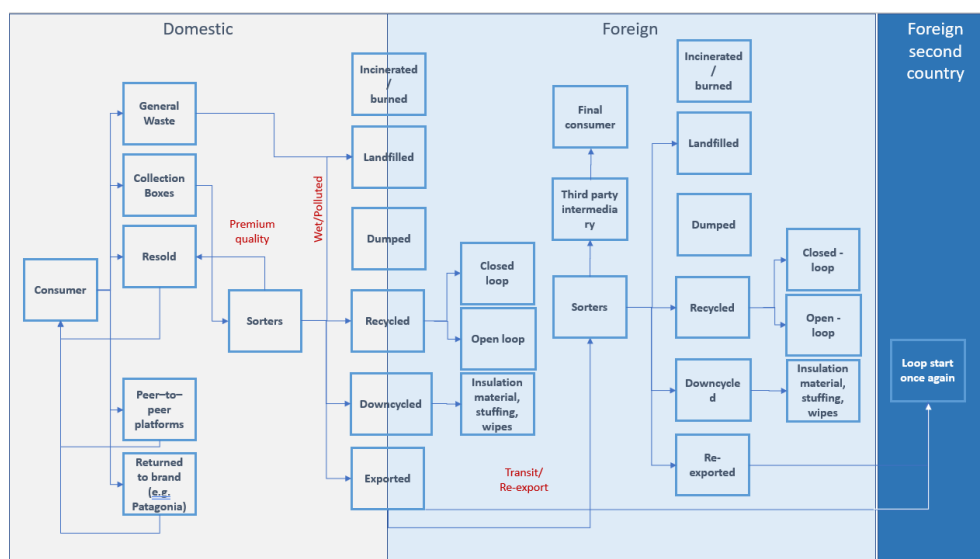
4. Europe, including the United Kingdom, was the world's predominant exporting region of used clothing in terms of volume. Europe now accounts for more than a third of global used clothing exports². At country level, the United States and the United Kingdom are the largest exporters of used clothing. Chinese used clothing exports more than doubled between 2020 and 2021.

5. Different trends aim to improve the collection rates and circularity of used clothing. Globally, more than 80% of all purchased items (62% in the EU) are disposed as general garbage, which is incinerated or sent to landfills (See Figure 2). The remaining used clothing is collected through donation boxes/containers and through second-hand shops. In the EU, new legislation promotes the full collection of discarded textiles by 2025. Some new trends are the sale of used clothes through e-marketplaces and thrift shops, mostly by young people, and the recovery of used clothes for resale or recycling by selected retail brands.

¹ See UN/CEFACT Programme of Work 2023-2024 (ECE/TRADE/C/CEFACT/2022/21), under Annex 1, section C. Focus Area III: Regulatory and eGovernment.

² European Environmental Agency "EU exports of used textiles in Europe's circular economy", 27 Feb 2023. Available at: <https://www.eea.europa.eu/publications/eu-exports-of-used-textiles> (accessed on 31 October 2023).

Figure 2
The post-consumer textile flow chain



Source: ECE-ECLAC 2023

6. In Europe, collected clothes are mostly transported to manual sorting hubs in Germany, the Netherlands, Poland and the United Kingdom. The sorting removes non-textile products and dirty clothes and separates wearable from nonwearable clothing. According to Circle Economy Foundation³, about 55% of collected clothes are reusable, meaning they have a value on second-hand markets within the EU (5%) or elsewhere (50%).

7. Chile is among the top five global importers of used clothing and textiles. In 2021, it received about 126,000 tons of used clothing and textiles⁴, mainly from China, the EU, South Korea, the United States and the United Kingdom (UK) (in USD value). About 40% of imported clothes enter Chile through the Iquique Port in the northern part of the country, located in Tarapacá region. These large import volumes are facilitated by a liberal import regime with zero tariffs due to Chile's extensive network of free trade agreements. In addition, there are few national and local regulations to mitigate the negative consequences resulting from the disposal of second-hand clothing in the nearby Atacama Desert. In contrast, most countries in Latin America (e.g. Argentina, Brazil, Colombia, Mexico and Peru) have introduced second-hand clothing import bans to protect their national textile and fashion industries, as well as human health and their environment.

³ Interview with Hilde van Duijn, Head of Value Chains, Circle Economy Foundation, in-person interview, March 2023.

⁴ Source: UN Comtrade 2021.

Table 1
Chile imports of used clothing⁵ by country of origin, 2021, USD and tons

Country	Value (Thousands of USD)	Volume (Thousands of tons)	Unit value (USD per kg)
China	\$45,818	12.1	3.8
United States	\$41,867	54.9	0.8
South Korea	\$18,775	7.5	2.5
EU27⁶+UK	\$17,703	12.6	1.4
Pakistan	\$11,708	9.6	1.2
Rest	\$30,517	29.6	1.0
Total	\$166,388	126.3	1.3

Source: ECE and ECLAC based on UN Comtrade.⁷

8. The ECE-ECLAC fieldwork analysed what happens to imported used clothing and textiles in Iquique in Chile. After a random customs check, large containers are moved to more than 50 recipient companies based in the Free Trade Zone of Iquique (ZOFRI). A manual sorting process, done mostly by women, separates clothes into first, second, and third-level quality clothes. After classification, they are assembled into bundles. Roughly 20% are sold within the rest of Chile, about 5% are re-exported to third countries, and the rest (about 75%) are moved to the port's surrounding areas. Intermediaries, seeking to buy first and second-quality clothes for resale on local markets within the region end up with large quantities of third-quality clothes⁸.

9. Clothing and textiles in the third category, which make up the majority in terms of volume, have no market value and most end up in various landfills in the nearby Atacama Desert. Since 2012, the Alto Hospicio Municipality in the Tarapacá region has witnessed the establishment and exponential growth of massive, illegal dumps of discarded tires, clothing and textile products in the La Pampa area of the Atacama Desert. About 30,000 tons of textile waste cover around 30 hectares. Some parts of these dumps are being burned. The clothes are mostly composed of synthetic fibres and their incineration releases heavy metals, acid gases, particulates and dioxins, causing harm to the health of people nearby and damaging the environment.

10. Chilean national and local authorities are being pressured by local and international communities to develop mechanisms to reduce and eliminate textile waste and address both its human and environmental damages. However, trade in second-hand garments also provides a source of employment and income—both formal and informal—for the national and migrant populations, in established stores and in open-air markets.

11. Reducing the excess and disposal of used clothing requires solutions beyond importing countries such as Chile. Any mitigation strategy will require coordination between exporting and importing countries. Recycling initiatives are not the most impactful solution. This is because textile recycling solutions are in their infancy and are mostly unable to separate the blended fibres that compose most used clothes (e.g. cotton and polyester) at an affordable cost. Moreover, most recycling is downcycling—that is, converting higher-value products into lower-value products with little economic value—which makes the operation unprofitable.

12. No single solution can reduce the massive volume of used garments, most of which have little economic value, that end up as textile waste in the Chilean Atacama Desert. **A**

⁵ Used clothing refers to the Harmonized System (HS) code 6309.00: Worn Clothing and Other Worn Textile Articles.

⁶ The European Union (EU) consists of 27 countries.

⁷ Calculations by ECE and ECLAC on the basis of United Nations, UN Comtrade Database [online] <https://comtrade.un.org/>. We use this reference in our publications, see <https://repositorio.cepal.org/server/api/core/bitstreams/f7f04471-cc47-4449-ace5-6b0bbc8f991f/content>

⁸ A condition for acquiring first and second quality items means taking lots of third quality as well (passing the responsibility of disposal off to the next person).

multilevel approach is needed, involving national and subnational authorities and affected communities. The main policy recommendations emerging from the ECE-ECLAC study are grouped under two categories: (A) the origin of second-hand clothing – Europe, and (B) the destination of second-hand clothing – Chile.

A. Recommendations on the origin of second-hand clothing - Europe

13. In Europe, a smart combination of measures is needed to stop the flow of non-reusable and recyclable clothing exports to Africa, Asia and Latin America. Recent policy and regulatory developments are setting mandatory requirements and standards to enable circularity within member States. These target both producers and consumers and aim to make sustainable products the norm, to reduce waste and to increase reuse and recycling, keeping materials in use as long as possible. The following recommendations are proposed:

- a) **Introduce circular considerations into the design phase** with mandatory targets for fibre composition, which should improve the quality, durability and reparability of garments and enable upcycling at the end of their life cycle. These targets are indicated in the EU Strategy for Sustainable and Circular Textiles⁹ and the EU Ecodesign for Sustainable Products Regulation proposal¹⁰. Furthermore, the material composition of unwearable textiles needs to be traceable¹¹ to help guide investments into innovative recycling facilities that are able to process mixed fibres and handle large volumes of textile-waste flows.
- b) **Develop more sorting and recycling plants** and provide financial incentives to encourage the development of affordable technologies and innovative solutions that enable the recycling and separation of mixed fibres (as indicated in the EU Strategy for Sustainable and Circular Textiles¹² and the Proposal for a targeted revision of the EU Waste Framework Directive¹³).
- c) **Introduce an extended producer responsibility (EPR) system**, which holds producers responsible for the products they manufacture, improving quality and facilitating repair and end-of-life recycling (as indicated in the EU Strategy for Sustainable and Circular Textiles¹⁴ and the proposed revision of the EU Waste Framework Directive¹⁵).
- d) **Develop minimum criteria for second-hand clothing exports** (as indicated in the EU Strategy for Sustainable and Circular Textiles¹⁶) to ensure that importing countries only receive garments that meet consumer demand or can be upcycled. Such criteria, when included in digital product passports (DPPs), would incentivize the automatic classification and traceability of second-hand textiles, while reducing their cost.

⁹ See [Communication](#) COM(2022) 141 final from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - EU Strategy for Sustainable and Circular Textiles.

¹⁰ See [Directive](#) 2022/0095, Proposal for a Regulation of the European Parliament and of the Council establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC.

¹¹ The ECE, with its UN/CEFACT, has developed a package of [information exchange standards](#) for the traceability of textile and leather value chains, from raw materials extraction and processing, through manufacturing, to clothing branding and retailing. It is also working on a product circularity data project to provide a standardized data model to enable information exchange for circular business models (reducing, reusing, recycling), including on fibre composition of clothing and on chemicals used for textile processing and finishing (see <https://uncefact.unece.org/display/uncefactpublic/EXTENSION+TEXTILE+AND+LEATHER+BRS+PART+2%3A+Use+case+and+CCBDA+data+structure+supporting+product+circularity>).

¹² See COM(2022) 141 final.

¹³ See [Proposal](#) 2023/0234 (COD) for a Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste, (COM(2023) 420 final) .

¹⁴ See COM(2022) 141 final.

¹⁵ See COM(2023) 420 final.

¹⁶ See COM(2022) 141 final.

- e) **Tailor trade agreements¹⁷ between mostly advanced exporting and mostly developing importing countries**, with criteria that facilitate trade in good-quality, used garments and avoid waste-textile flows that cause environmental degradation and risk human health in destination markets—particularly those without adequate waste management capacity.

B. Recommendations on the destination of second-hand clothing—Chile

14. The tons of textile waste imported by Chile are a result of unregulated overproduction and overconsumption on a global scale, which is associated with the fast-fashion model and low import barriers. At the same time, weak authority at both the national and local levels, particularly in the Tarapacá region, and the lack of targeted policies and strategies to address the negative consequences of the entry, trade and disposal of second-hand clothing, have led to poorly managed impacts in the country.

15. Chile should act to effectively constrain the import of massive volumes of low-quality garments. The following are the key recommendations for Chile:

- a) **Analyse the environmental impact of textile landfills.** To date there has been no study to measure the environmental impacts (to air, soil and groundwater) of textile decomposition or incineration, nor the impacts on the health of the nearby population.
- b) **Phase out the incineration of textile waste.** This involves prohibiting and sanctioning the burning of textile waste dumps, which is due to lack of adequate disposal infrastructure and awareness of the impacts of incineration.
- c) **Improve the legal framework and its enforcement, pertaining to (i) extended producer responsibility (EPR); (ii) waste management; and (iii) environmental quality of soils.** This requires speeding up the development of a solid waste control plan, which would involve inspections of landfills, waste collection points and dumps, and maintenance of a registry in the Alto Hospicio region.
- d) **Differentiate textile waste and second-hand clothing.** Establish legal definitions of “textile waste” and “second-hand clothing” to inform bilateral discussions with the main trading partners (China, Europe, South Korea and the United States) and establish quality restrictions on imports in the trade agreements in force.
- e) **Step up customs controls,** including administrative measures to enable the digital traceability of used clothing and textile waste from the port of Iquique to ZOFRI, and to various parts of Chile. These should be based on international standards (e.g. ECE-UN/CEFACT traceability standards). It is also essential to improve customs procedures at ZOFRI and make their integration into the Foreign Trade Single Window (SICEX) mandatory.
- f) **Establish a circular economy strategy for textiles** covering the entire process from importation through incorporation into new production processes to delivery of recycled products and repair services. Public-private partnerships for upcycling projects, enabled through fiscal incentives schemes and targeted funding, could support entrepreneurship, innovation and jobs creation for vulnerable groups, particularly in the Tarapacá region¹⁸.

16. The implementation of these measures requires the engagement of all authorities and stakeholders, including those concerned about local environmental and social issues. Authorities and stakeholders are aware of the multidimensional challenges that need to be addressed and have already implemented solutions on a small scale, as reported in the ECE-ECLAC study. Besides the social and environmental components, collaborative platforms also need to be established to address the health and soil management aspects.

¹⁷ As indicated in the EU Strategy for Sustainable and Circular Textiles (COM(2022) 141 final).

¹⁸ For instance, ECOCITEX—a company that makes fibres out of the second-hand clothing and textile waste—is good example of a project that the government could support.

17. Furthermore, there is a need for an international standard and criteria on separating second-hand clothing from textile waste and a need trace and make transparent what happens to them. This is something the United Nations, including the ECE (e.g. UN/CEFACT Product Circularity Data Standard project¹⁹) is working on in partnership with international and regional players such as the European Union.

18. Finally, looking into the international trade and development dimension, more attention is needed for recipient countries. Trade agreements could include provisions which only allow exports to countries with sufficient waste management capacity, to ensure that imported waste does not contribute to environmental degradation and poor working conditions. Technical assistance and advice could be provided on the design of policies and regulations, to ensure imports meet local needs, to build capacity, to encourage investments in effective waste management, and to promote the uptake of circular business models while creating green and good jobs, particularly for vulnerable groups in the informal sector.

19. The full ECE-ECLAC study report “Improving the sustainability of used clothing: Global, European, and Chilean perspectives” will be published in 2024.

¹⁹ See the UN/CEFACT product circularity data standard project webpage, available at <https://uncefact.unece.org/display/uncefactpublic/EXTENSION+TEXTILE+AND+LEATHER+BRS+PART+2%3A+Use+case+and+CCBDA+data+structure+supporting+product+circularity>.