



# DESTINATIONS OF DUTCH USED TEXTILES

Uses and Risks after Export

December 2023





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# 1 INTRO - DUCTI ON

As one of the world's top ten exporters of used clothing,<sup>1</sup> the Netherlands is a key player in the complex networks of worn clothing around the world. In 2022, 248,000 tonnes of used textiles were exported from the Netherlands,<sup>2</sup> in line with a broader movement of textiles from the EU—which increased from just over 550,000 tonnes to almost 1.7 million tonnes between 2000 and 2019.<sup>3</sup> After leaving the Netherlands, these textiles enter an increasingly complex reverse value chain, transferring vast quantities across borders—primarily from the Global North to the Global South.

Used clothing exports from the Netherlands totalled more than €193 million in 2022: the highest export value in the five years previous. Imports totalled more than €59 million in the same year. With an average European price for used textiles of €0.76 per kilogramme in 2019,<sup>4</sup> this indicates considerable volume exported. These volumes of post-consumer textiles must also be contextualised against the fashion industry's systemic overproduction: between 2000 and 2014, globally, per capita clothing purchases have increased by 60% with items being kept only half as long on average.<sup>5</sup> This broad trend is mirrored in the Netherlands, where the average consumer buys 46 new items and disposes of 40 each year.<sup>6</sup>

**In 2018, 84% of the textiles collected in the Netherlands were sold abroad**, with 53% are suitable for rewearing, 33% are recycled and 14% are non-recyclable and non-renewable.<sup>7</sup> This is enabled by the Netherlands' well-established and innovative collection and sorting ecosystem, with approximately 248<sup>8</sup> companies active in this space.

In this context, new legislative and policy mechanisms are essential, with crucial milestones set in the **EU Strategy for Sustainable and Circular Textiles**<sup>9</sup> from March 2022. These put the commitments of the **EU Circular Economy Action Plan (CEAP)** (2020) and the **European Green Deal** into action, with the *Strategy* promising to take an explicit stance against the dominant 'fast fashion' business model. At the moment of writing this report, pressing issues around waste trading and processing are being debated and shaped by policymakers: for example, 1) Extended Producer Responsibility requirements for the eco-modulation of fees and measures to promote the waste hierarchy for textile waste, 2) the setting of targets for preparation for reuse and recycling, 3) the enforcement of restrictions on the export of textile waste outside

the OECD and 4) the development of criteria for distinguishing waste from second-hand products. Simultaneously, amendments to the European **Waste Framework Directive (WFD)** propose a new regulatory approach: harmonising certain elements of waste management—such as definitions, quantitative objectives operationalising the waste hierarchy, the polluter pays principle and reporting requirements—while leaving room for cities and nations to develop their own implementing measures, such as waste management planning and the permitting of waste.

On the national level, the **Policy Programme for Circular Textiles 2020–2025**,<sup>10</sup> aims to increase the share of recycled materials in products sold on the Dutch market and sets ambitious targets to reuse 10% and recycle 30% of sold goods by 2025, in cases where immediate reuse is not possible. Moreover, from the 1st of July 2023, the **Dutch Extended Producer Responsibility (EPR)** scheme for textiles has come into force, meaning that producers are now responsible for financing the system for collection, reuse and recycling of textile products.<sup>11</sup>

In November 2022, member of parliament Kiki Hagen (D66) presented a policy document<sup>12</sup> underlining the need for ambitious policy to make the textile sector more sustainable and circular, particularly calling for increased transparency, improved definitions and ecomodulated EPR fees. One clear ask was to better understand the exports of used clothing leaving the Netherlands. This initiative was welcomed by the *staatssecretaris* Vivianne Heinen in a letter to Parliament.<sup>13</sup> This was followed by the Roundtable discussion<sup>14</sup> of the Parliamentary Commission for Infrastructure and Water Management in March 2023, engaging leaders of the Dutch circular textiles industry. This discussion, while inspiring, left policymakers and the general audience with unanswered questions regarding what exactly happens to exported used textiles. A clearer understanding of the realities of second-hand clothing (SHC) markets in export destinations will be crucial to develop appropriate policy at the national and supranational levels to support the socially equitable and environmentally sustainable processing of used textiles.

To this end, this report explores what happens to textiles collected in the Netherlands in their various destination countries, and highlights the impacts and risks associated with these exports, as well as how they are addressed.



This research aims to help unravel the destinations and actual uses of used textiles exported from the Netherlands so that the government and value chain stakeholders can better contribute to the creation of a circular and fair value chain for post-consumer textiles. With this study, we aim to intensify cooperation between the government, other value chain partners and development organisations in destination countries to promote circular pathways after export.

To dive into the research phase of this study, UN Comtrade database searches<sup>15</sup> were conducted for the export flows of HS6309<sup>16</sup> and HS6310<sup>17</sup> from the Netherlands between the years of 2017 and 2022. To contextualise these findings and further guide the selection of focus countries, six interviews were conducted with major textile collectors and sorters in the Netherlands from July to August 2023. The organisations interviewed collect, sort and trade a combined volume of 234,000 tonnes of used textiles per year.

Five focus countries were selected to exemplify a broad range of social and environmental impacts, categorised as *Import-export hubs*, *Recycling hubs* and *Reuse and Disposal destinations*. The selection criteria for focus countries were: high volumes of textile imports, especially if this was consistently high over a five-year period, frequent mentions in the interviews, and available literature specifically on the used textiles value chain in that country. The focus countries chosen are Ghana, India, Kenya, Poland and Pakistan. To map a realistic picture of each of the focus countries and the impacts and risks they may face from importing and processing used textiles, insights were gathered through a literature analysis and validated through sixteen stakeholder interviews from across the focus countries, namely three from Ghana, four from India, four from Kenya, one from Poland and four from Pakistan. The interviewed parties include the perspectives of a sorter-exporter, recyclers, impact organisations, consultants and universities. The following chapter summarises key findings, while Chapter three deep dives into significant destinations of used textiles exports from the Netherlands and the profiles of the five focus countries. Chapter four summarises the uses of and processes applied to imported textiles, and finally, Chapter five examines the social and environmental risks and impacts associated with them.

While this report promotes the development of legislative and economic instruments to drive circular textile uses and pathways and mitigate the negative effects of exports, it is recognised that further research in close partnership with on-the-ground knowledge partners and governments in destination countries is needed. To this end, further recommendations can be found in Chapter six.



## Textile ‘waste’? An ambiguous category

Used textiles are often reused as-is, or they undergo closed- or open-loop recycling or energy recovery. For this reason, ‘waste’ is a misleading term. When value can’t be retained further, landfill is the last resort.

EU Member States also vary in their definitions of textile waste. 18 In the Netherlands, the collection of textiles via dedicated street bins is classified as waste collection, irrespective of the quality or intent of the deliverer. 19 Following collection, the items placed in the bins are sorted and traded as a resource.

Collection, sorting and other processing operations fall under *preparation for reuse*<sup>20</sup> and constitute a crucial step of adding value to collected textiles as defined by the Waste Framework Directive, enabling them to enter the circular economy. It is currently being debated whether these definitions are sufficient and is expected that additional, more detailed distinctions will be made between textiles suitable for reuse, recycling and disposal.

For the purposes of this report, **used textiles** will be used as the umbrella term. **Second-hand clothing (SHC)** will be used to more narrowly specify items that are placed on the market as reusable and intended for resale and rewearing.





# 2

## SUMMARY OF FINDINGS

After being discarded, collected and sorted, used textiles from high-income economies with extensive waste management infrastructure—such as the Netherlands—travel to countries that serve the role of import-export hubs. They then usually reach lower-income countries with less capacity and systems to process the incoming volumes.

The value chains associated with used textile exports generate a vast amount of formal and informal employment opportunities in both exporting and importing countries. The recognition that the existing SHC system supports livelihoods across the globe should be at the centre of policy and legislative efforts to address its negative impacts. The needs of the most vulnerable groups, informal retailers and waste workers, must be recognised and prioritised.

As exemplified by the findings of this report, large volumes of used textiles do often undergo circular practices in destination countries, from repair, resale and remanufacturing to open- and closed-loop recycling. However, vast quantities of textiles end up in regulated or unregulated waste disposal systems, such as landfilling, dumping or open burning. In both European and destination countries, textile waste is traded and processed formally and informally, which makes it difficult to identify where and by whom the waste is deposited into the natural environment. Negative impacts on livelihoods are also difficult to pinpoint.

The informal nature of used textile processing is often linked to less safe employment, characterised by the lack of minimum or living wages and employment security, as well as debt and power imbalances between business partners. Thus far, key value chain actors in exporting countries have paid little attention, also research-wise, to social and environmental compliance in destination countries. This represents an opportunity for pioneering innovative research, more stringent policy and enforcement, and global value chain partnerships.

This significant lack of research isn't only specific to the SHC trade: it belongs to an overarching research and policy gap on how the circular economy impacts people and livelihoods, especially in the Global South, as well as how it could protect against the persistent challenges of work quality.<sup>21</sup> This study helps identify the prerequisites for a truly inclusive global circular value chains for used textiles.

To more equitably distribute the socioeconomic benefits circular activities for end-of-life textile management—while minimising negative consequences—a combined effort is needed from governments, researchers, impact organisations and businesses. This multi-layered, cooperative and dynamic set of processes should be underpinned by international and inclusive dialogue, as well as bold and transformative policy at the national, European and international levels.

This report's recommendations explore how existing synergies and trade relationships between countries may be further built upon to lessen socioenvironmental risks within the used textile value chain while making the most of circular innovation opportunities in this space. Harmonising definitions for end-of-waste, preparation for reuse and recycling processes, as well as improving and enforcing regulations governing waste exports, will be crucial to this process.





# 3

## DESTINATIONS OF USED TEXTILES FROM THE NETHER- LANDS

305,100 tonnes of textiles were discarded in the Netherlands in 2018. <sup>22</sup> During the covid-19 pandemic, this figure decreased to 194,000 tonnes in 2020 and 202,000 tonnes in 2021. <sup>23</sup> Separately collected used textiles totaled 136,100 tonnes in 2018 (90,000 tonnes in 2020 and 115,000 tonnes in 2021) and roughly 248,000 tonnes of used textiles were exported from the Netherlands in 2022. <sup>24</sup>

84% of the textiles collected separately are sold abroad. In 2022, the highest volume export destination was Poland, which received just 10% of the total export volume from the Netherlands. This indicates the fragmented nature of the used textiles market (as further illustrated in Tables one and two.) It should be emphasised that inter-EU textile exports tend to be followed by further export beyond the region. <sup>25</sup>

What's more, not all of the used textiles exported originate from the Netherlands; 98,300 tonnes of textiles are imported from elsewhere for sorting, largely from Germany. <sup>26</sup> Conversely, despite the Netherlands' significant sorting capacity, <sup>27</sup> 55% of the textiles collected domestically are sent abroad for sorting. <sup>28</sup> This illustrates the complex regional and global textiles landscape: the Netherlands should not be analysed in isolation, but rather as one player in a tangled network.

There is a degree of uncertainty when it comes to quantifying used textile flows, which reflects a broader trend; data on commodities that may be considered 'waste' tends to be inaccurate. <sup>29</sup> There are currently no rigorous systems in place to track the movement of exported, re-exported and imported textiles with precision. However, the Netherlands is an exception to this rule, and boasts highly-detailed data on waste management. Nonetheless, the figures discussed in this chapter are far from definitive: they rely on UN Comtrade data that only indicates the initial destinations of used textile exports, not their final destinations. Data also differs depending on the reporter. Values reported by exporters and importers vary for multiple reasons, including goods being classified differently, <sup>30</sup> and existing research points out that the trade relationships between SHC exporters and importers are the most guarded area of the value chain. <sup>31</sup> Against this backdrop, this chapter provides an overview of used textile exports from the Netherlands and explains how the five focus countries were selected.

### INTERNATIONAL WASTE GOVERNANCE AND COMMODITY CODES

The EU **Waste Shipment Regulation** (proposed in 2021) aims to regulate the cross-border movement of waste materials both within and beyond the EU, implementing the obligations of the **Basel Convention**. The Basel Convention is an international treaty that was first implemented in 1989 to prevent the transboundary movement of hazardous waste, specifically from 'more developed' to 'less developed' countries.

However, although used textiles are considered 'waste' at the point of discard (including into separate textile collection bins) in most EU countries and the Netherlands, they are traded as commodities. Formally discarded textiles are considered waste under the Waste Framework Directive, but after being collected and sorted, a significant share of the textiles will lose their waste status and instead be classified as a second-hand product. In case of cross-border movement, the Waste Shipment Directive only applies to waste, not to second-hand products.

Used textiles exported from the EU are divided into two main product codes under the combined nomenclature (CN) classification system: <sup>32</sup>

1. HS 6309 for 'worn textiles and clothing' and
2. HS 6310 for 'sorted and unsorted used rags and textiles scraps'.

According to the European Environment Agency (EEA), 6309 is generally assigned to textiles fit for reuse, while 6310 should be used for textiles unprocessed or unfit for reuse. 6310 items might be (but are not necessarily) waste, while 6309 items are rarely considered waste. <sup>33</sup> However, there is much uncertainty about the quality and nature of used textiles categorised as 6309; items are not necessarily always fit for reuse and are sometimes even unsorted. Moreover, the 6310 code is often avoided due to additional regulations on waste exports; as a result, the default is to trade both usable and unusable textiles under the 6309 code. <sup>34</sup> The key implication for this project is that a large volume of 6309 exports to a destination need not imply a 'reuse market' there; similarly, 6310 cannot be taken as a proxy for a 'recycling market'.

In addition, the Basel Convention Annex IX List B lists 'worn clothing and other worn textile articles' under code B3030 as a distinct category of waste. This

coding is relevant to the Waste Shipment Regulation. Theoretically, this code should only apply to textiles that are not directly reusable (either in their current state or after repair/refurbishment), however, the wording broadly coheres with the CN code 6309, which further illustrates the inherent ambiguity of waste definitions. These governance and coding ambiguities further complicate the multi-actor SHC network, making global textile flows far from transparent.

### EXPORT VOLUMES, TOP DESTINATIONS AND FOCUS COUNTRIES

Using the UN Comtrade database, searches were conducted for the export flows of HS6309<sup>35</sup> and HS6310<sup>36</sup> from the Netherlands for the years 2017 to 2022. Tables one and two present the top destinations, volumes and trade values of 6309 and 6310 exports in 2022. Values are presented in Euros (€) and have been converted from US\$ the standard currency for international trade flow analysis. For a full overview of the range analysed, see Annex A.

It must be recognised that while the UN Comtrade database is the most comprehensive data source available, some data gaps remains between the international export and import flows. There are

many valid reasons why the reported exports may not coincide with the reported imports, for example, due to the different valuation of imports and exports, meaning that imports are generally reported on a Cost, Insurance and Freight (CIF) basis, while exports are reported on a Free on Board (FOB) basis. For this reason, import values tend to be higher than export values. Generally, other minor differences may just be due to differences in the time of recording.<sup>37</sup>

To validate these quantities and further guide the focus country selection, six interviews were conducted with major textile collectors and sorters in the Netherlands over July and August 2023. These organisations collect, sort and trade a combined volume of 234,000 tonnes of used textiles per year.

European high-volume recipient countries (such as Germany, Belgium and Poland) are unlikely to be used items' final destination; trade between EU Member States is generally followed by exports beyond the region.<sup>39</sup>

Five focus countries were selected to provide insight into the broad range of social and environmental impacts stemming from used textiles from the Netherlands.

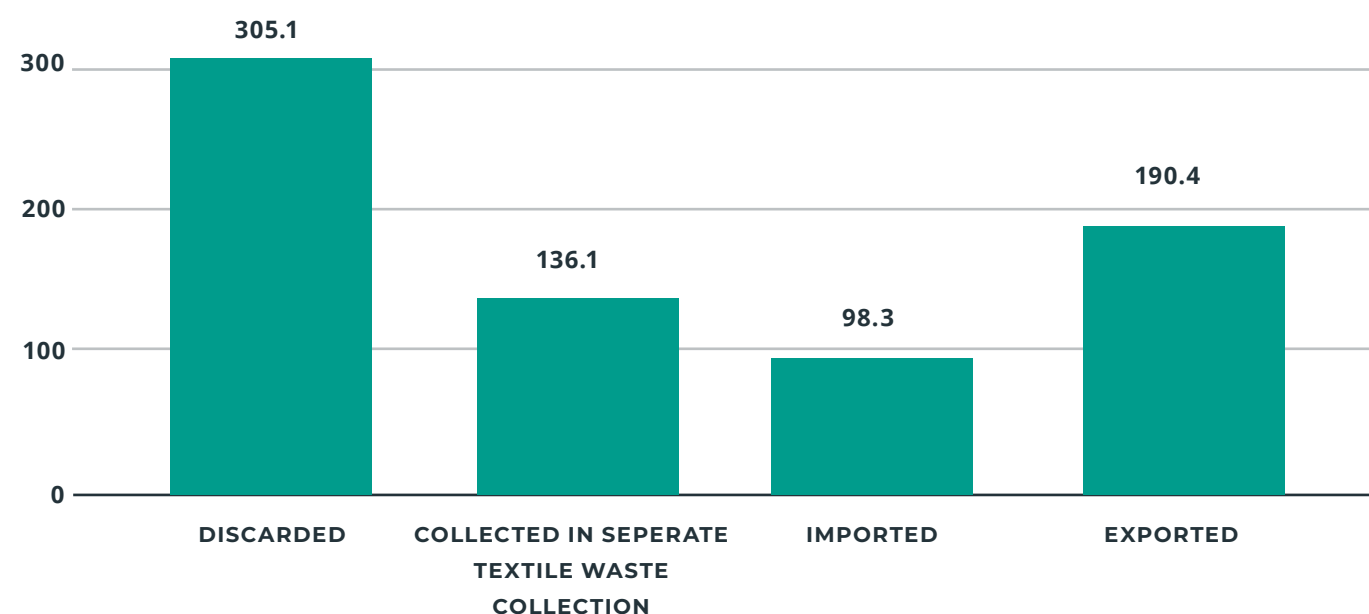


Figure one displays a summary of textile volumes in the Netherlands: discarded (FFact, 2020), collected (FFact, 2020), imported (FFact, 2020) and exported (UN Comtrade, 2022).

It is worth noting that both interview data and trade flow data highlighted Cameroon as a key destination. However, due to a lack of contacts on-the-ground and limited resources to build these partnerships within the project's scope, Cameroon was ultimately excluded from interviews in the second phase of the research. Due to significant media coverage surrounding the textile waste 'mountain' in Chile's Atacama desert, it is perhaps also worth justifying Chile's exclusion; only one sorter-collector mentioned having export partners there and the Comtrade data did not suggest that Chile was a significant destination for the Netherlands exports of either 6309 (used textiles) or 6310 (sorted and unsorted used rags and textiles scraps).

Countries are therefore designated according to the primary processes associated with imported used textiles there, as

- Import-export hubs: Pakistan and Poland;
- A recycling hub: India;
- Reuse and Disposal destinations: Ghana and Kenya.

These categories do not capture the full range of activities related to imported used textiles in these countries. Further detail for each focus country can be found in Chapters three and four; here the selection and categorisation criteria are explained with reference to each key destination.

DESTINATION	VOLUME (TONNES)	TRADE VALUE (€) <sup>38</sup>	AVERAGE VALUE PER TONNE (€)
Poland	17,010	16,960,207.22	997.51
Pakistan	15,766	4,489,151.99	284.61
Cameroon	9,944	12,266,051.03	1,233.31
Kyrgyzstan	8,740	10,327,114.33	1,181.73
Germany	8,507	15,775,603.42	1,854.10
Ghana	7,295	7,205,394.78	987.38
Kazakhstan	7,129	8,379,864.11	1,175.28
United Arab Emirates	6,438	4,466,281.03	693.56
Lithuania	6,014	4,450,416.60	739.62
Belgium	5,949	7,391,357.32	1,348.44
Total	167,675		

Table one displays a summary of the top 6,309 ('worn textiles and clothing') exports from the Netherlands (UN Comtrade, 2022).



**Poland and Pakistan** were selected as import-export hubs. Poland ranked as the highest volume destination for 6309 (used textiles) exports from the Netherlands in 2017 (25,264 tonnes), 2018 (19,028 tonnes) and again in 2022 (17,010 tonnes). Both Poland and the Netherlands are sorting and exporting hubs, receiving high volumes of textiles from other EU Member States and exporting substantial volumes outside of the EU.<sup>40</sup> The high volumes of 6309 (used textiles) exports from the Netherlands to Poland likely reflect the lower labour costs in Poland for labour-intensive manual sorting.

Pakistan was also a top five destination for Dutch used textile exports for the last five years (under 6309). Four of the six of the Dutch collector-sorters interviewed confirmed that Pakistan is a primary export destination, noting that usually the lowest-quality textiles were sent there. The net amount sent has increased annually, peaking at 18,303 tonnes in 2021.<sup>41</sup> Pakistan is simultaneously the sixth largest used clothing exporter in the world.<sup>42</sup> Based on this, we assume that Pakistan is unlikely to be the final destination for the Dutch used textile exports. To this end, Pakistan was categorised as an import-export hub.

DESTINATION	VOLUME (TONNES)	TRADE VALUE (€)	AVERAGE VALUE PER TONNE (€)
France	23,928	7,727,799.82	323.29
Germany	13,770	15,296,393.56	1,110.80
India	10,272	1,075,923.66	105.00
Belgium	7,733	3,738,899.42	483.56
Denmark	6,662	6,809,827.76	1,022.38
United Kingdom	5,319	2,052,776.64	385.93
Poland	2,910	1,493,786.90	513.03
Sweden	1,916	1,956,363.24	1,021.46
Norway	1,664	938,935.50	564.61
Hungary	1,102	529,487.11	480.80
Total	80,732		

Table two provides a summary of top 6310 ('sorted and unsorted used rags and textiles scraps') exports from the Netherlands (UN Comtrade, 2022).

For both of 'import-export hub' destinations, we also present top re-export destinations. We have calculated the percentage of a total of 6309 (used textiles) imports that come from the Netherlands. That same percentage of re-exports to other countries is taken as a proxy for Netherlands-origin textiles flowing to these onward destinations.

Export and re-export destinations have been listed in Tables three and four below to showcase the commonality of re-export in SHC trade flows. They indicate that with each export, the highest-value textiles are removed, thus leaving the lowest-quality textiles to end up in final destinations (these final destination countries are classified as Reuse and Disposal in this report).

**India** was selected as a focus country and is framed primarily as a recycling hub. India is the top importer of 6310 (sorted and unsorted used rags and textiles scraps) from the Netherlands based outside of the EU. Trade restrictions mandate that textiles with the 6309 (used textiles) code can only be imported to India via the Kandla Special Economic Zone (KASEZ). Of the 6309 textiles that are imported to KASEZ, it is also required that at least 50% must be re-exported: similarly to Pakistan, most re-exports go to African countries. By contrast, 6310 textiles can be freely traded across all ports throughout India. Much of this is intended to be used as feedstock for recycling—a major industry in the country, particularly in Panipat.

10,272 tonnes of 6310 textiles were exported from the Netherlands to India in 2022; this represents 13% of the total 6310 exports in that year. This suggests that 6310 trade is both a less significant (in terms of volume and trade value) and less scattered market than 6309. It is also likely a higher volume of Netherlands-originating 6310 textiles ends up in India by way of France. India is also the top destination for 6310 exports from France (12,630 tonnes in 2021), while France is a consistent top three destination for 6310 exports from the Netherlands.

**Ghana, Kenya and Cameroon** were originally selected as focus countries in this study to better understand how used textiles from the Netherlands impact their final destinations. As noted, research on Cameroon was discontinued, as relevant stakeholders could not be reached. Both Ghana and Kenya are established high-volume recipients of textiles intended for reuse. At the same time, both countries export comparatively low volumes of both 6309 (used textiles) and 6310 (sorted and unsorted used rags and textiles scraps) where data is available at all. These countries also take on the responsibility of disposal if reuse is not possible.<sup>45 46 47 48 49</sup>

VOLUME IMPORTED FROM NETHERLANDS	VOLUME OF DUTCH TEXTILES RE-EXPORTED	RE-EXPORT DESTINATIONS
11,761 tonnes (15% of Poland's total 6309 imports) <sup>44</sup>	3,842 tonnes	Pakistan
	3,593 tonnes	Ukraine
	2,972 tonnes	Togo
	1,145 tonnes	Kenya
	1,066 tonnes	Ghana

Table three summarises 6309 flows from Netherlands through Poland (2021).<sup>43</sup>



Ghana has been a top ten destination for Dutch used textiles (6309) between 2017 and 2022 (except for 2018, where data is missing). 8,922 tonnes of 6309 were exported directly to Ghana in 2021; this volume remained fairly stable across the five years analysed, going up slightly to 9,289 tonnes in 2020—even though overall export volumes decreased in the same year. Indirectly, more textiles from the Netherlands ended up in Ghana: via Poland, for instance. Used textile export data for Ghana in 2022 and 2021 are missing in UN Comtrade.

The Netherlands exported 1,049 tonnes of used clothing directly to Kenya in 2021, ranking the country as the 31st highest-volume destination. However, Kenya is the primary export destination for used textiles from Pakistan, as well as a significant destination for Poland; our assumption is that a substantial amount of Dutch used textiles ended up there indirectly. What's more, in 2021, Kenya imported 183,506 tonnes worth of used textiles (6309). Only 1,519 tonnes were exported. By contrast, the Netherlands imported 63,672 tonnes of used textiles (6309) but exported 167,674 tonnes.<sup>50</sup> These consistently high import-to-export ratios lend further weight to the characterisation of Kenya as a reuse and disposal location.

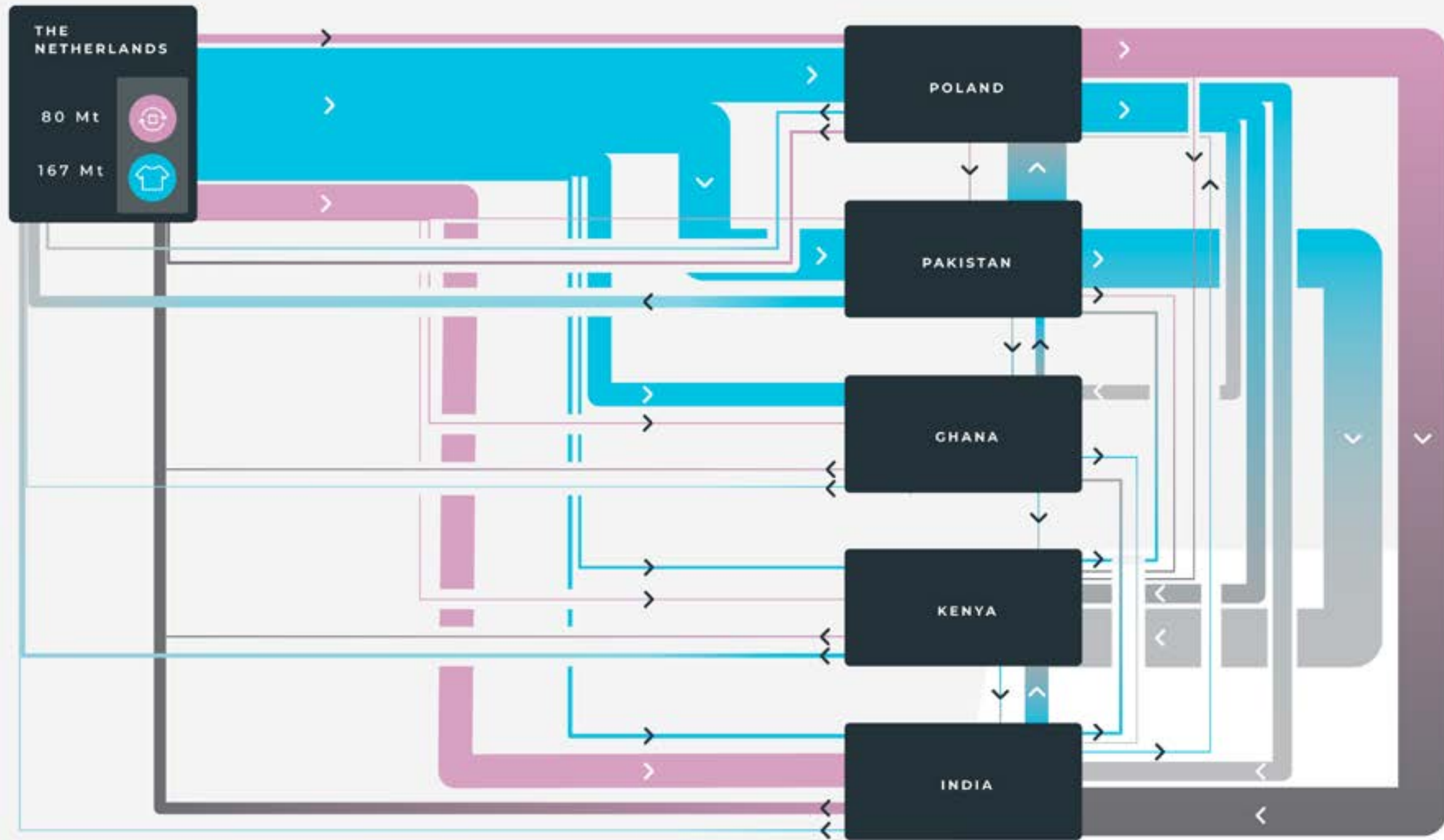
VOLUME IMPORTED FROM NETHERLANDS	VOLUME OF DUTCH TEXTILES RE-EXPORTED	RE-EXPORT DESTINATIONS
18,303 tonnes (2% of Pakistan's total 6309 imports)	1,146 tonnes	Kenya
	1,074 tonnes	Tanzania
	851 tonnes	Mozambique

Table four summarises 6309 flows from Netherlands through Pakistan (2021).





# Destinations of Dutch textiles



👕 WORN TEXTILES AND CLOTHING  
🧺 SORTED AND UNSORTED USED RAGS AND TEXTILE SCRAPS





# 4

## USES OF EXPORTED TEXTILES

This chapter will provide a more nuanced picture of the use pathways of the used textiles exported from the Netherlands to the five focus countries. To give a comprehensive overview of potential uses, a framework was built based on Cobo et. al's hierarchy of the waste valorisation process.<sup>51</sup> Further insights from interviews and literature were integrated to specify this framework in relation to Dutch used textiles. It should be highlighted that this hierarchical ranking is not universal; some use pathways have a lower environmental impact, but carry greater social risk. For example, incinerating acrylic fibre waste has a lower impact on human health compared with landfilling, although it has a higher negative impact in terms of ecosystem pollution than landfilling.<sup>52 53</sup>

There is a broad consensus that **reweaving** is the most sustainable and circular pathway for used textile management.<sup>54 55 56</sup> However, in current legislation, there is no shared definition or list of criteria that indicate what exactly constitutes a rewearable used item, nor what exact steps in preparation for reuse are required. Existing best practice is expressed in Handling & Sorting specifications by EURIC<sup>57</sup> and in the Austrian *Guide to determining the end-of-waste status in the preparation for reuse*,<sup>58</sup> yet neither of these reflect the more granular factors that professional sorters take into account on a daily basis. This indicates that the reusability and fit for the particular market are based on the subjective decision of the sorter, who has to consider the facility-specific guideline reflecting the needs of buyers, usability, trend, colour, brand and visible damage. These factors are not weighted equally; so, for example, usability might be compromised when the trend and brand are a high fit and in demand for a specific market.

Preparation for reuse is also referred to as 'exiting the waste status' and so far, the most advanced is the French legislation, which offers distinctive criteria for reuse<sup>59</sup> and manufacturing of industrial wipers.<sup>60</sup> It states that where appropriate, cleaning or repair steps are needed to ensure that the waste can be directly reused for its original intended use, but does not sufficiently clarify the condition of the worn textiles to indicate whether they would be fit for reuse, as it happens in the day-to-day practice of collectors-sorters.

The sorting industry relies on manual sorting processes and criteria that change substantially to meet the preferences of the importers and markets

where they operate. In principle, the sorting of second-hand textiles reflects the seasonality, long and short-term trends as well as cultural and climate fit of garments and home textiles exported. However, although the textiles are sorted with best expertise and intention to be reused, this is only validated at the point of sale, where the reusable items will prove 'resellable' or not.

According to the Dutch collectors and sorters interviewed, approximately 60–74% of textiles collected in the Netherlands are rewearable. Other sources estimate this figure lower, at around 55%.<sup>61</sup> The highest quality textiles, colloquially referred to as the 'crème', constitute up to 5% of the incoming volume. These textiles are usually sold in vintage shops in the Netherlands and sometimes elsewhere; Ireland, Iceland and Japan were mentioned as 'vintage quality' destinations. Lower quality but still rewearable textiles are sold in second-hand and charity shops across Europe.

Another significant use pathway is the resorting of Dutch used textiles in their first destination country, followed by **re-export**. While this study focuses on Pakistan and Poland as import-export hubs, Lithuania and the UAE are also prominent import-export countries. The same used textiles could potentially be re-exported multiple times before entering another use pathway and there is currently no data monitoring system in place to systematically trace re-exports.

The next group of use pathways encompasses a range of processes that transform non-rewearable used textiles into new commodities through **revaluing and recycling**. Revaluing involves processes that transform used textiles so that they may be resold again as an item of clothing or accessory. This includes activities such as screen printing, over-dyeing, tie-dyeing, remanufacturing, repair and alteration. **Closed-loop recycling** involves used textiles being mechanically shredded and turned into recycled fibres, which replace virgin fibres in new garment production. In these cases, recycled fibres are blended with the virgin fibres to ensure sufficient quality outputs. Chemical and thermo-chemical recycling technologies are largely in the Research and Development phases, yet offer to divide natural fibres from synthetics at scale in the coming years. Textiles suitable for existing commercially viable closed-loop recycling technologies are pure cotton, pure wool, pure acrylic, cotton-rich and wool-rich blends (> 80%).<sup>62</sup>



**Open-loop recycling** refers to the mechanical processes of shredding or garnetting: opening up the fabric structure into a fluffy, fibrous condition for future use in insulation, automotive filling, mattress filling or similar. This means that used textiles are transformed into less economically valuable commodities or inputs for other industries, such as industrial rags and wipers, or filling for cars and home textiles.

Used textiles may also be **incinerated** or burned in the open, either as a disposal method or for energy recovery. As per EU Waste Framework Directive, for incineration to be considered 'recovery' rather than 'disposal', a highly efficient plant is required—and even then only partial reclamation of the energy used for processing the original fibres is possible.<sup>63</sup> Participants in this study also reported cases of informal use of textiles as fuel in Reuse and Disposal countries, for example, for peanut roasting and water heating.

When no other use pathway is available—or when the sheer volume of used textiles is not economically or infrastructurally feasible to manage—textiles are **disposed** of in either managed or informal landfills. The environmental and social impacts of this will be elaborated on in Chapter five.

One of this report's notable findings was the contrasting perspectives regarding viable use pathways for exports to African countries in terms of their quality and rewearability. Interviews with Dutch collectors and sorters indicated that all exports from the Netherlands to the African continent were always good-quality rewearables. Watson et al.'s study on the uses and impacts of Nordic post-consumer textile exports similarly found that 'exports to the African continent are exclusively reusable textiles for resale'.<sup>64</sup> With respect to textile waste mountains, all sorters and collectors interviewed for this study believe that their operations are disconnected from this because they sort meticulously at the origin. They see this problem as the result of the fact that some used textiles trade operates as a 'cowboy industry', with illegal contractors and exports driving the issues.

At the same time, interviewee perspectives from impact organisations in focus countries convey a more varied and dynamic picture. These parties note that it's nearly impossible for any actor in this reverse supply chain to accurately claim that they're entirely disconnected from textile exports' adverse impacts. One collector reaffirmed that it's essentially impossible to attain full transparency beyond EU borders. This disparity between the perspectives of Dutch sorters and organisations in receiving countries about the quality and value of used textiles reflects the vast challenge of categorisation, traceability and transparency throughout the value chain.

Finally, a concerning finding is that the portion of rewearable collected textiles is decreasing, while those containing synthetic fibres is increasing. It was reported that the quality of used textiles has diminished over time, which most interviewees linked explicitly to 'ultra-fast fashion'. The implications of this and the need to target overproduction alongside exports are further elaborated in Chapter six. Meanwhile, Chapter five will elaborate on the environmental and social impacts associated with these various uses.

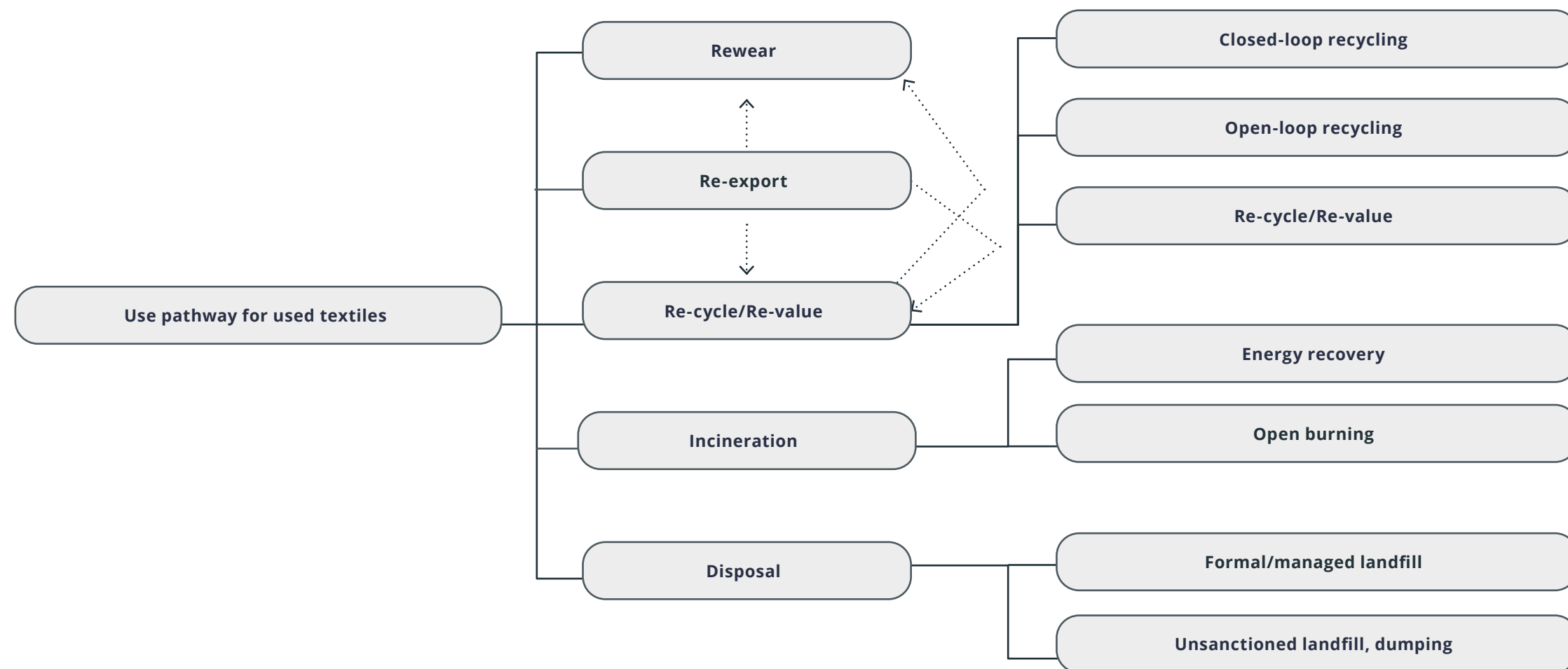


Figure two summarises use pathways.



# 5

## SOCIOECONOMIC AND ENVIRONMENTAL

### IMPACTS AND RISKS OF USED TEXTILE EXPORTS

On the one hand, the SHC trade embodies a sustainable method of dealing with used textiles, keeping clothing in circulation and providing affordable clothing to people across the world. However, systems of used textile circulation in their current form produce a distinctive set of environmental and social justice issues.<sup>65</sup> The uneven global distribution of the negative impacts of used textiles has been well-established by research over the last decades.<sup>66,67</sup><sup>68,69</sup> The purpose of this chapter is to (a) synthesise findings from existing literature on these impacts, and (b) explore how emerging insights and narratives relate to the focus countries of the report, through the qualitative interviews conducted. The impacts and risks presented in this chapter do not apply to all focus countries, but provide an overview of all potential impacts identified; country-specific insights will be highlighted in individual countries' profiles.

#### ENVIRONMENTAL IMPACTS AND RISKS

There are two broad categories of research on used textiles and the environment. One focuses on the potential environmental benefits of SHC reuse and recycling economies, and the other focuses on the constellation of environmental harms associated with used textiles. These bodies of work have different and sometimes conflicting normative groundings and methodological orientations. Although these contrasts are significant, there is limited scope to discuss their implications in detail here; this section will rather provide an overview of the dominant themes, debates and contexts of both research streams, in addition to relevant insights from interviews with industry and impact actors in focus countries.

#### POSITIVE ENVIRONMENTAL IMPACTS OF REUSE AND RECYCLING ECONOMIES

Reusing garments saves more than 3 kilogrammes of carbon dioxide per item and the negative environmental impacts associated with sorting, up-cycling and transport processes are trivial in relation to those involved in the production of new garments.<sup>70</sup> However, the realisation of these environmental benefits requires that reuse actually replaces new garment consumption—whereas existing consumer behaviour research<sup>71</sup> indicates that this is not the case. Usually, in countries with lower purchasing power the replacement rate was found to be higher.<sup>72</sup> However, other factors are also highly relevant, such as cultural

perceptions of SHC, access to SHC versus new clothing, and the perceived and factual quality of the SHC.<sup>73</sup> Consequently, replacement rates fluctuate and differ from country to country, calling for more research.

Therefore, the assumption that increasing reuse will lead to the reduced production and consumption of new products is contradicted by consumer habits as well as the continually escalating production rates of new clothes. 99% of brands do not disclose a commitment to ultimately reduce the number of new items they produce, and only 12% of fashion companies have even disclosed the quantity of products produced annually in 2023, down from 15% in 2022.<sup>74</sup> Determining whether the export of Dutch used textiles has a significant impact on replacement rates in export countries is far beyond the scope of this study, but would need to be firmly established to make the claim that the reuse markets enabled by these exports bring environmental benefits.

What's more, different geographies need to be explicitly acknowledged in discussions of reuse, replacement and recycling. Interviews showed that the location of environmental impacts vary substantially; for example, participants from Pakistan (import-export hub) and India (recycling hub) stated that there were very few environmental harms, and instead focused on the positive environmental contributions attached to used textiles imports. By contrast, interviewees from both reuse and disposal countries (Kenya and Ghana) described environmental harms and their impacts at a local level.

Another interviewee pointed out that research on the net environmental potential of second-hand markets and recycling technologies tends to be far removed from the recipient countries of the majority of post-consumer textiles, and furthermore tends to benefit actors in Europe and the West. There was some frustration that certain sustainability solutions may be developed in such a way that generates additional problems further away. Including actors at the 'end' of the value chain in decision-making will be crucial to ensure that developments in these areas unfold along a genuinely sustainable and equitable trajectory. This will be elaborated upon further in Chapter six.



## NEGATIVE ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WITH USED TEXTILES

The most concerning environmental impacts of used textiles are related to improper incineration and disposal in reuse and disposal countries. The range of harms identified by interviewees included issues associated with: open burning, unmanaged landfills, toxic chemicals from plastic and other microfibres, and corollary impacts on air, soil and water environments. Where waste management infrastructure is lacking and when incoming used textiles volumes are too large, textile waste can also build up and become embedded in soil, or block waterways, with further environmental impacts such as flooding.

Many of these risks are linked to the high rates of synthetic materials used in textiles. Over the last two decades, synthetic fibre production has expanded from less than 20% of all fibres to between 63% and 69%.<sup>75</sup> It should be noted, however, that clothes sourced for the Dutch market are declared to be predominantly made of cotton and polyester,<sup>76</sup> and companies disclosing information in the Textile Exchange reported using a higher percentage of cotton than polyester, which could indicate that polyester fibres are used more in technical textiles, or workwear, rather than garments. However, exports are likely to still have higher synthetic and polycotton compositions than is reflected here given that domestic textile production constitutes a much smaller market compared to imports.<sup>77</sup> The Netherlands is thus contributing to environmental harm elsewhere due to the prevalence of synthetic materials.

Synthetic fibres (such as nylon and polyester) are mainly produced from crude oil, which means that they do not biodegrade when they end up in landfill, but rather fragment gradually and remain present in surrounding environments for hundreds of years.<sup>78</sup> During this process, plastic microfibres—smaller than 5 millimetres—are released into soil and groundwater. This has been linked to detrimental effects on plants, nematodes, earthworms and soil properties, as well as human health, which will be described later in this chapter.<sup>79 80 81</sup> Initial research on marine environment microplastics has been similarly concerning: between 16–35% of microplastics in the oceans globally are estimated to be from synthetic textiles.<sup>82 83</sup> Although in Europe this figure is lower—8%—this does not take exported textiles into account.<sup>84</sup>

Even non-synthetic, plant-based and natural microfibres resist bio-degradation and may have a negative environmental impact,<sup>85</sup> reaffirming the need to approach the risks tied to used textiles in a holistic, systemic way as opposed to approaching it as a technical waste management problem.

## SOCIAL IMPACTS AND RISKS

The social impacts of the global SHC trade can also be broadly divided into two conflicting narratives: on the one hand, used textile exports offer affordable and much-needed clothing options in the destination countries; in stark juxtaposition, the SHC trade is perceived as tantamount to ‘stealth’ waste exports, shifting the burden of the Global North’s overconsumption onto the Global South.<sup>86</sup> These conflicting narratives and the infrequency of dialogue between them may be partially explained by the fact that the ‘value transformation’ of discarded textiles to commodities often takes place in the under-researched informal economy, leading to the ‘compartmentalisation of debates about its impact.’<sup>87</sup> This section aims to draw these debates together by considering social impacts and risks across the following categories: employment impacts, macroeconomic impacts, health impacts, and sociocultural impacts.

## EMPLOYMENT IMPACTS

The used textiles value chain unambiguously generates a huge amount of employment, particularly for women, in the sorting, recycling, selling, cleaning, repairing, re-styling, and distributing of SHC.<sup>88</sup> The creation of a vast number of jobs in all destination countries was consistently highlighted throughout interviews as the most important social and economic benefit of the used textiles exports. This reflects the broader trend of employment creation in the circular economy; a 2018 International Labour Organization study showed that new activities in recycling and reprocessing led to the creation of over 10 million jobs in Latin America and the Caribbean and around 0.5 million jobs in Europe.<sup>89</sup>

Yet, concerns related job quality and social risks were also raised in interviews, particularly in relation to reuse and disposal countries. The tendency to portray job creation in purely quantitative and positive terms in all focus countries may oversimplify the complex reality of employment relationships in the largely

informal SHC value chain. Risks mentioned across interviews and literature were related to occupational health and safety, job security, fair wages, exploitation of vulnerable workers (including migrant workers, head porters and waste pickers), and child labour.

Even where waste management systems for used textiles are formalised and managed, they often still rely on the labour of informal actors, for various processes of distribution, resale and disposal, for example. The social challenges of this kind of employment are often tied to poor transparency; in many ways, these issues mirror those that are well-known in relation to the production and manufacturing side of the new textiles value chain.<sup>90 91</sup> It was suggested by an interviewee from Pakistan that these social risks may be even more pronounced in the reverse value chain for textiles, due to lower margins and less visibility, therefore meaning less consumer interest and policymaker scrutiny. Similarly, high levels of informality are associated with a lack of workers’ representation and unionisation, as well as a high risk of accidents and health issues.<sup>92</sup>

The used textiles economy, also analogous to textiles and apparel manufacturing, creates vastly more jobs for women in comparison to other sectors. This was confirmed by interviewees speaking about four focus countries (India, Pakistan, Ghana and Kenya.) However, a gendered analysis of the different tasks performed by men indicates that there may also be gender-specific disadvantages. For example, recycling and sorting enterprises are overwhelmingly owned and operated by men, while the majority of lower-wage, non-technical and manual labour-intensive tasks are performed by women.<sup>93</sup> In relation to resale, an interviewee based in Kenya also reported that male SHC retailers tend to receive higher-quality bales from importers. In this sense, currently circular strategies—including clothing reuse and recycling—are replicating the feminisation trajectory of the linear textiles value chain in which women are overrepresented in jobs with lower salaries and poorer working conditions.<sup>94</sup>

Another key insight emerging from impact organisations in both Ghana and Kenya is that of the **dynamics of exploitation, debt and dependency** that can emerge in the used textiles value chain. SHC retailers in low-income recipient countries pay for bales of used textiles—that were donated in the Netherlands or other high-income countries for free—sometimes taking credit to do so. They pay upfront for

these bales without knowing in advance the quality—and thus also the resellability—of the products inside, taking on the financial risk of revaluing, resale, storage and disposal. In addition, the quality of used textiles within imported bales is highly variable, as well as decreasing overall according to interviewees in all focus countries and the Netherlands. According to interviewees from Kenya and Ghana, market prices for the bales do not reflect the quality and the resale system lacks feedback loops between exporters, importers and wholesalers. As a result, SHC retailers are not able to return poor-quality products to the importer. The way that financial risks are concentrated along this value chain reflects a system of debt and dependency that needs to be addressed through policy and economic instruments in destination countries but primarily seems possible to be addressed at the quality control stage before export if the improved communication and feedback loops were in place.

## MACROECONOMIC IMPACTS

The relationship between SHC imports and domestic textiles production in high-volume recipient countries is a prominent and contested issue.<sup>99 100</sup> The idea that high import volumes are causally linked to the collapse of the domestic industry has not been conclusively established. However, in the policy realm, several governments in high-volume SHC recipient countries have attempted to implement protectionist measures against excessive volumes of SHC entering the market, ostensibly based on the assumption that this might stimulate domestic production. Prominently, in 2016, the East African Community (EAC)—a trade bloc comprising Kenya, Tanzania, Uganda, Rwanda and Burundi—attempted to instigate an import ban. This initiative initially failed to materialise due to external pressure, particularly from the US. However, Ugandan President Yoweri Museveni announced an import ban in Uganda effective from the 1st of September 2023.

Similarly, it was pointed out by interviewees that the relevant economic competition is not between SHC imports and the domestic textile industry, but rather between SHC and new garments from affordable, ultra-fast fashion—namely Chinese—brands. It was suggested that a SHC import ban could lead to an immediate influx of non-durable, synthetic new items onto the market rather than an increase in domestic production. It is perhaps notable that Museveni’s announcement took place at the opening ceremony of the Sino-Uganda Mbale industrial park,<sup>101</sup> which hosts three Chinese manufacturers at the moment.



The exact socioeconomic impacts of this dynamic are unpredictable and would depend on specific policies and enforcement mechanisms applied. Whether new, second- or third-hand, once no longer resellable, the low-quality textiles will end up being disposed of in exactly the same, often insufficient or unmanaged waste management channels. SHC imports would also be likely to continue through informal or illegal channels given the amount of people employed in the value chain. The illegal, or falsely declared imports of waste, including textiles, already exist. A detailed analysis of these economic dynamics and their social impact is beyond the scope of this study; these points signal areas for further research, particularly with respect to the impacts of the emerging ultra-fast fashion model.<sup>102</sup>

In the context of the focus countries for this study, there is a marked contrast between unrestricted 6309 (used textiles) exports to Kenya and Ghana and the situation in India, where used textiles are only allowed to be imported through Kandla for re-export, and the domestic textiles and apparel industry has been able to develop—it is currently developing at a compound annual growth rate of 10%.<sup>103</sup> However, this does not ensure that import bans would bring similar economic development in other contexts. Moreover, interviewees in Ghana highlighted that bans would likely generate a range of unpredictable and negative impacts. However, these differential protectionist policies in the Indian and African contexts reveal notable power differentials against which to consider the transnational movement of used textiles.

### HEALTH IMPACTS

There are significant health risks associated with the lack of appropriate waste management systems for textile waste. One key concern stems from the aforementioned plastic microfibres and their leaching into the terrestrial and aquatic environments. Eventually, these microfibres enter food systems, contributing to a plethora of adverse and unpredictable health effects including possible birth defects, miscarriage, early onset menopause and puberty, cancer, neurological disorders and reduced brain development.<sup>104 105 106 107</sup>

It is extremely difficult to quantify and predict the health effects of plastic microfibres. This is because microplastics can cause a range of harmful effects on human health even at trace levels, disrupting

dominant understandings of toxicology.<sup>108</sup> In this way, microfibre impacts also contradict the models implicit in global agreements on export regulations of plastic-containing products, including used textiles, such as the Basel Convention. Plastics and their chemical additives (like monomers or plasticisers) are colloquially known as ‘bad actors’; even at trace levels they may intervene and accumulate in ecosystems, change genetic material, easily travel and escape containment, and persist against breaking down.<sup>109</sup>

Moreover, also according to interviewees, unmanaged landfilling, informal textile waste dumping, using textiles as fuel for heating or food roasting and open burning are ubiquitous around SHC markets like Kantamanto and Gikomba in Ghana and Kenya. Open burning releases toxins, acid gases, heavy metals and particulates, which are linked to respiratory diseases, cancers, cardiovascular disease and birth defects. Informal landfills cannot be linked to textile waste alone and constitute the intersection of a wider crisis of various domestic and imported waste streams.

### SOCIOCULTURAL IMPACTS

The most significant positive socio-cultural impact of used textile exports from the Netherlands and Europe is the provision of ‘inexpensive but good quality clothing options for poorer segments of the population in final destination countries.’<sup>110</sup> Furthermore, an interviewee from Pakistan pointed out that imported SHC does not only benefit the poorer population; the middle and upper-middle class also purchase SHC as a quality, sustainable option, or to access brands not otherwise present on the market.

The sociocultural impacts of SHC are a point of contention in both literature and interviews. The global SHC value chain makes Western clothing styles widely available in line with many people’s preferences,<sup>111</sup> while at the same time it is recognised as a form of ‘cultural imperialism’ and promoting a universalised concept of fashion.<sup>112</sup> In some of our interviews, ‘Africa’ was consistently approached as a homogenous entity and strong impressions were expressed that African people ‘need’ European-used clothes, even if they are perceived as being of too poor quality for reuse within Europe.

In this context, it is notable that one of the motivations for the East African Community attempt to ban SHC imports was the desire to promote ‘dignity’ and a domestic textiles industry more aligned with the local



### ‘Waste pickers’

The vulnerability of informal workers in waste economies (often referred to as ‘waste pickers’) is particularly well-established in literature.<sup>95 96 97</sup> In the process of sifting through often unmanaged landfills to identify and collect potentially valuable materials—including textiles—to resell, waste pickers are exposed to a plethora of health risks, in addition to the socioeconomic risks of informal employment. The level of exclusion and lack of protective measures for workers in direct contact with waste is higher than anywhere else in the informal economy, and workers are often from the most disadvantaged groups in their respective societies.<sup>98</sup>



context and history.<sup>113</sup> Again, further research on sociocultural and psycho-social impacts—with a broader range of stakeholders representing both the creators and consumers in receiving countries—is needed to fully articulate enablers and constraints.

The idea of providing inexpensive and desirable items dovetails with the altruistic narrative of clothing donation, whereby European consumers feel morally validated by the idea of contributing to this ‘need’ in lower-income countries. From this perspective, textile donation becomes the optimal solution for the growing mountain of discarded textiles: it is both ‘circular’ and ‘charitable’. However, despite some charitable groups working to provide quality clothing where there is a real need, the overwhelming majority of actors involved in SHC trade are for-profit entities.<sup>114 115</sup>

## Waste colonialism

The term ‘waste colonialism’ was first recorded at a UNEP Basel Convention in 1989; several African countries raised concerns about the global transboundary disposal system and the tendency to dump (often hazardous) waste materials in the Global South. The term is increasingly used in academic literature, research reports and the media to describe the global export system of used textiles.<sup>116</sup> Waste colonialism relates to the framing of unwanted clothing exports to low-income countries as ‘charity’ despite the increasingly documented social and environmental risks that they involve.

A 2019 Basel Convention amendment prohibits the export of hazardous waste from developed countries (defined as OECD countries, EU Member States and Liechtenstein) to developing countries. However, while the ‘hazardous’ categorisation includes some plastics, it excludes several demonstrably harmful waste categories including textiles.<sup>117</sup>

Waste colonialism also relates to the asymmetric structure of trade agreements surrounding used textile exports and structures of dependency and debt. Agreements under the *General Agreement on Tariffs and Trade* and World Trade Organization benefit high-income exporting countries, including the Netherlands, rather than low-income receiving countries, which take on risks and costs. They cannot return poor quality or damaged textiles, which were donated for free but are purchased at cost, and spill into the natural environment. This negatively affects the livelihoods of vulnerable communities, which receive little to no support to carry that burden.

## FOCUS COUNTRY PROFILES: USES, IMPACTS AND RISKS

In this subsection, we dive deeper into the specific dynamics of the five focus destinations. Each country’s profile synthesises interview findings and existing literature to highlight the way that the uses, environmental and social impacts and risks associated with these exports play out across these different contexts.

### POLAND: IMPORT-EXPORT HUB

Poland is in the top ten receiving countries of used textiles exported from the Netherlands under 6309. The country was ranked as a top importer in 2017, 2018 and 2022. The top exporters of used textiles to Poland in 2022 were Germany, the United Kingdom and the Netherlands, with the Netherlands accounting for 21% of total 6309 (used textiles) imports. **Re-export** is the primary use pathway for Poland. **Re-value** through downcycling into predominantly industrial wipers for domestic and export use is the next most prominent use pathway, followed by domestic SHC **Reuse** and energy recovery (**Incineration**) through refused derived fuel (RDF).

### USE PATHWAY: RE-EXPORT

Poland reached an export value of €183,066,391.50 for used textiles (6309) and €23,325,687.05 for rags (6310) in 2022 alone. The main receiving countries of 6309 (used textiles) that are sorted in and exported from Poland by weight are Pakistan, Togo and Ukraine. Analysing exports by value places Ukraine, Togo, Uganda and Belarus as the highest value per kilogramme destinations. Kenya ranks 11th, followed by Ghana (12th). Exports to the Netherlands rank 14th and Pakistan only ranks 17th place in terms of export value in 2022 according to UN Comtrade. This overview reflects sorters’ comments on the low quality of exports going to Pakistan.

TOP IMPORT ORIGINS AND VOLUMES	POLAND	TOP EXPORT DESTINATIONS AND VOLUMES
<ul style="list-style-type: none"> <li>Used textiles (6309)               <ol style="list-style-type: none"> <li>Germany: 18,639 tonnes</li> <li>United Kingdom: 14,736 tonnes</li> <li>Netherlands: 14,533 tonnes</li> </ol> </li> <li>Rags and textiles scraps (6310)               <ol style="list-style-type: none"> <li>Germany: 55,610 tonnes</li> <li>Czechia: 10,343 tonnes</li> <li>Netherlands: 7,029 tonnes</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Net volumes:               <ul style="list-style-type: none"> <li>109,606 tonnes of 6309 exported</li> <li>31,938 tonnes of 6310 imported</li> </ul> </li> <li>Total imports:               <ul style="list-style-type: none"> <li>Used textiles (6309): 67,874 tonnes</li> <li>Rags and textiles scraps (6310): 86,150 tonnes</li> </ul> </li> <li>Total exports:               <ul style="list-style-type: none"> <li>Used textiles (6309): 177,480 tonnes</li> <li>Rags and textiles scraps (6310): 54,212 tonnes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Used textiles (6309)               <ol style="list-style-type: none"> <li>Pakistan: 27,504 tonnes</li> <li>Togo: 18,516 tonnes</li> <li>Ukraine: 16,471 tonnes</li> </ol> </li> <li>Rags and textiles scraps (6310)               <ol style="list-style-type: none"> <li>India: 15,060 tonnes</li> <li>Latvia: 7,480 tonnes</li> <li>Belarus: 6,406 tonnes</li> </ol> </li> </ul>

Overview of used textile imports and exports.



Before re-export, textiles from the Netherlands (and elsewhere in Europe) undergo further manual sorting. The sorting capacity in Poland is at 200,000 tonnes annually (2020 estimate), with 131,985 tonnes of SHC collected domestically.<sup>118</sup> This capacity is mainly provided by two integrated sorting companies, processing 65,000 tonnes<sup>119</sup> and 125,500 tonnes a year<sup>120</sup> respectively. Wtorpol is a collector operating Red Cross street containers in the country, with over a thousand people employed in sorting, the resale and manufacturing of industrial wipers, RDF and composites. VIVE Textile Recycling only processes imported used textiles. The imported textiles are sorted for resale manually and by the Fibersort,<sup>121</sup> an automated solution sorting by material composition. Both companies aside from resale, manufacture industrial wipers, RDF and composites. Both run online and brick-and-mortar SHC stores. Aside from these two leaders, multiple smaller companies are present, including social enterprises that openly discuss the status quo and the role of Poland in global SHC value chains and introduce local brand partnerships.<sup>122</sup>

#### USE PATHWAY: REUSE IN POLAND

The prevalence of second-hand shopping in Poland is changing alongside history. In the communist era, prior to 1989, it was the only way to access desired global brands; SHC clothes would be purchased by informal importers who were not taxed. This was largely formalised and remained a prominent and affordable option for consumers throughout the 1990s and 2000s. More recently, the SHC market in Poland reflects the pursuit of a more sustainable lifestyle, with 44% of consumers declaring that they first check the second-hand offer, and 20% of respondents claiming to buy pre-owned clothes for environmental reasons.<sup>123</sup>

However, Poland's increasing prosperity and changing consumer habits have ultimately resulted in a steady stream of closures of second-hand stores, with 23,500 in 2009, reaching a low of 14,400 in 2021.<sup>124</sup> Yet the future of second-hand shopping looks promising with SHC TikTok videos watched 286.4 million times<sup>125</sup> and the Poland SHC market's estimated worth of approximately €1.5 billion according to 2019 figures from Statistics Poland.<sup>126</sup>

In 2021, Vinted calculated the replacement rate of SHC in Poland on their platform at 33.31%<sup>127</sup> which is slightly lower than that of the Netherlands (40.75%). This indicates that perhaps the growing environmental

consciousness among consumers is not yet translating into second-hand purchases frequently replacing new purchases.<sup>128</sup>

#### SOCIAL AND ENVIRONMENTAL IMPACTS

The most popular opinion amongst Polish consumers (41%) is that donation to charity is the best way to dispose of used textiles, and two-thirds deem their disposed clothing reusable, according to a 2022 study.<sup>129</sup> Interestingly, the quoted reports omit the social and environmental impacts of SHC trade outside Poland, looking at it purely from the responsible consumerism perspective within Poland.

SHC offers employment in trading and operations, as well as logistics and sorting. Individuals from all societal groups can be involved in resale, mostly online, as a way of accessing a passive income stream and recognising the status and value of second-hand and vintage clothing.

Similarly to the Netherlands, most of the negative environmental impacts are taken on by recipients of used clothing exports, however, there are examples of businesses in Poland breaking waste disposal regulations, avoiding the payment of fines and even leaving the problematic textile waste to burn in the open.

Municipal waste in Poland is recycled (26.9%), composted or fermented (13.3%) and incinerated with energy recovery (13.3%) or without energy recovery (1.2%). Still, the largest share is landfilled (38.7%), with 94% of landfills generating landfill gas for energy.<sup>130</sup> Nine waste-to-energy sites with a capacity of 800,000 tonnes (2018) rely on the negative price of RDF which indicates possible reasons for illegal waste dumping of textiles.

#### PAKISTAN: IMPORT-EXPORT HUB

As detailed in Chapter two, Pakistan has consistently ranked among the top five recipient countries for used textiles (6309) from the Netherlands since 2017. The majority of these textiles flow through the port in Karachi. Here, further processing and sorting take place within the Karachi Export Processing Zone (KEPZ) where 70 companies are listed<sup>136</sup> as engaged in used textiles activity.

#### USE PATHWAY: REUSE IN PAKISTAN

According to a Pakistan-based expert in used textiles, this use pathway has been well-established for around 35 years. Imported used clothes are re-sold, mostly by informal vendors in local markets, or by the side of the road.

#### USE PATHWAY: RE-EXPORT

Sorting is a labour-intensive activity, so low labour costs in Pakistan motivate Dutch (and other European) collectors and sorters to send textiles there for further sorting. For example, single shoes are sent to be paired, with Netherlands-based interviewees estimating that 75–80% of the pairs would be found within three months. After this further sorting, high volumes of used textiles are **re-exported**, ostensibly to enter the reuse pathway in their next destination. In 2018, used clothing comprised 38% of total exports from the KEPZ. In terms of trade values, Pakistan

imported US\$180 million<sup>137</sup> worth of used textiles in 2021, while it exported US\$266 million. This illustrates the significant value added through additional sorting, as well as the importance of the sector in terms of local economy and employment.

#### USE PATHWAY: RE-VALUE

Another use pathway for used textiles imports that remain in Pakistan is **re-value**, either through mechanical closed- or open-loop recycling. While some of these activities have been prominent practice in the local spinning and manufacturing industry since its inception, according to interviewees, it has been approximately over the last seven years that this activity has been further invested into, scaled and formalised. This is partly due to recognition from international buyers and recyclers and indirectly in response to EU Ecodesign for Sustainable Products Regulation (ESPR) Proposal.

#### SOCIAL AND ENVIRONMENTAL IMPACTS

While Pakistan is a major destination of used textiles exports from the Netherlands and many other European countries, there is no research on the social and environmental impacts within Pakistan that may be directly tied to these exports. The economic lens is far more prominent in discussions of all use pathways in Pakistan.

TOP IMPORT ORIGINS AND VOLUMES	PAKISTAN	TOP EXPORT DESTINATIONS AND VOLUMES
<ul style="list-style-type: none"> <li>Used textiles (6309)               <ol style="list-style-type: none"> <li>United States: 475,261 tonnes</li> <li>United Kingdom: 41,444 tonnes</li> <li>China: 32,842</li> </ol> </li> <li>(11) Netherlands: 15,352 tonnes</li> </ul>	<ul style="list-style-type: none"> <li>Net volumes               <ol style="list-style-type: none"> <li>513,911 tonnes of 6309 imported</li> <li>71,665 tonnes of 6310 exported</li> </ol> </li> <li>Total imports:               <ul style="list-style-type: none"> <li>Used textiles (6309): 806,648 tonnes</li> <li>Rags and textiles scraps (6310): 1,690 tonnes</li> </ul> </li> <li>Total exports:               <ul style="list-style-type: none"> <li>Used textiles (6309): 292,737 tonnes</li> <li>Rags and textiles scraps (6310): 73,355 tonnes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Used textiles (6309)               <ol style="list-style-type: none"> <li>Kenya: 49,654 tonnes</li> <li>Mozambique: 42,990 tonnes</li> <li>United Republic of Tanzania: 40,413 tonnes</li> </ol> </li> <li>Rags and textiles scraps (6310)               <ol style="list-style-type: none"> <li>United States: 25,962 tonnes</li> <li>Canada: 10,239 tonnes</li> <li>Australia: 6,017 tonnes</li> </ol> </li> </ul>

Overview of used textile imports and exports.



At the same time, Dutch collectors and sorters stated that only the lowest quality textiles are exported to Pakistan. Additionally, two of the Dutch companies interviewed had stopped exporting to Pakistan. For one of them, this decision was primarily motivated by the ability to sell even the lowest-quality textiles for a higher price in different markets. The other was more concerned with transparency and human rights issues; they stated that transparency is already difficult within the EU and effectively impossible beyond its borders. According to this interviewee, while there is a strong economic incentive for Dutch companies to send used textiles to Pakistan, they perceived it as more ethically responsible to instead take on the cost of incinerating the lowest quality textiles domestically in the Netherlands.

A further possible implication here is that after re-sorting for recycling in the KEPZ, the lower quality textiles are again re-exported, with the highest volumes going to Kenya, Tanzania and Mozambique and the higher quality items remaining in the Pakistan SHC market.

## INDIA: RECYCLING HUB

### USE PATHWAY: RE-EXPORT

Reuse of imported foreign used textiles is an extremely insignificant use pathway in India. A series of total or partial bans on used textiles (6309) imports and high tariffs (sometimes up to 200%) for imports in excess volume of the quota was introduced between 2003 and 2013, with the intention of supporting India's domestic garment sector.<sup>138</sup> However, India still imports 6309 for **re-export**; in 2021, 174,537 tonnes of 6309 came into India. As indicated in Chapter two, only licensed importers in the Kandla Special Economic Zone (KSEZ) can import 6309.

It was noted by an interviewee from a research consultancy based in India that roughly 50% of these rewearables are exported to Africa and that some Indian importers also own second-hand shops in Africa. Re-export activities were deemed the most economically valuable pathway for used textiles.

### USE PATHWAY: RE-VALUE

India is a primary recipient of 6310 (mutilated) used textiles from the Netherlands. Unsurprisingly in light of the policy environment outlined above, India imports far more 6310 (519,657 tonnes in 2021). There are two major use sub-pathways or value chains for re-valuing these 6310 textiles in India; downcycling (including the production of rags for the wipers industry and stuffing for cars and home textiles); and mechanical recycling. The vast majority of this happens in the city of Panipat in the state of Haryana.

There are six larger and about 50 medium sized spinning companies and five larger sorting companies in Panipat, along with multiple medium, small and cottage-based units for cleaning and sorting this waste. These are primarily geared towards the creation of recycled yarn, which supplies weaving and manufacturing units in Panipat and beyond.<sup>139</sup>

One of the most significant end-products made from recycled yarn is blankets for humanitarian aid. Other uses include rugs, doormats, bathmats, shawls and various handloom products.

## SOCIAL AND ENVIRONMENTAL IMPACTS

The regional employment tied to used textiles imports in Panipat is highly significant; it is estimated that the industry employs somewhere between 20,000 and 70,000 people<sup>140</sup>. Moreover, while hard to quantify, the positive impact of Panipat's recycling activities is vast in terms of the amount of virgin resources that are not extracted as a result of recycling in the region.

One interviewee suggested a subjective hierarchy of higher quality and security jobs for supervisors, managers and machine operators working for formalised sorters and lower quality jobs amongst aggregators and traders, informal sorters, handlers and transportation workers. It was noted that while informal and formal sorters perform the same job, the nature of employment is very different with informal workers (unsurprisingly) left more vulnerable to health and other social risks.

In terms of more negative impacts, most sorting units in Panipat are unregistered and wages tend to be below minimum rates, with interviewees highlighting that women in particular are not being paid the minimum wage, leading to a wider gender pay gap. Some made allegations of child labour. Mostly men perform higher-wage jobs requiring technical skills, while mostly women perform manual sorting tasks. While rates are expected to be lower in Panipat than in Delhi, it is worth comparing that wages between ₹150

and ₹200 per day (€1.68 and €2.24) were recorded for women, and ₹410 to ₹500 per day (€4.47 to €5.59) for men. This is in spite of the minimum wage for unskilled labour of ₹538, set by the Delhi Minimum Wage Notification in 2018.<sup>141</sup>

TOP IMPORT ORIGINS AND VOLUMES	INDIA	TOP EXPORT DESTINATIONS AND VOLUMES
<ul style="list-style-type: none"> <li>Used textiles (6309)               <ol style="list-style-type: none"> <li>United States: 84,158 tonnes</li> <li>Canada: 34,747 tonnes</li> <li>Japan: 18,676 tonnes</li> </ol>               (24) Netherlands: 359 tonnes             </li> <li>Rags and textiles scraps (6310)               <ol style="list-style-type: none"> <li>Bangladesh: 238,221 tonnes</li> <li>Republic of Korea: 72,710 tonnes</li> <li>United Arab Emirates: 46,753 tonnes</li> </ol>               (13) Netherlands: 9,658 in tonnes             </li> </ul>	<ul style="list-style-type: none"> <li>Net volumes               <ul style="list-style-type: none"> <li>562,475 tonnes of 6310 imported</li> <li>114,761 tonnes of 6309 imported</li> </ul> </li> <li>Total imports:               <ul style="list-style-type: none"> <li>Used textiles (6309): 186,543 tonnes</li> <li>Rags and textiles scraps (6310): 589,847 tonnes</li> </ul> </li> <li>Total exports:               <ul style="list-style-type: none"> <li>Used textiles (6309): 71,782 tonnes</li> <li>Rags and textiles scraps (6310): 27,372 tonnes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Used textiles (6309)               <ol style="list-style-type: none"> <li>United Arab Emirates: 16,551 tonnes</li> <li>Uganda: 7,750 tonnes</li> <li>Kenya: 7,653 tonnes</li> </ol> </li> <li>Rags and textiles scraps (6310):               <ol style="list-style-type: none"> <li>Italy: 5,194 tonnes</li> <li>United States: 3,991 tonnes</li> <li>Canada: 3,952 tonnes</li> </ol> </li> </ul>

Overview of used textile imports and exports.



## GHANA: REUSE AND DISPOSAL DESTINATION

### USE PATHWAY: REUSE AND RE-VALUE

Much of the available information surrounding the use of used textiles imported into Ghana revolves around the Kantamanto market in Accra. Built in the 1960s by European traders, Kantamanto is an ecosystem that has grown steadily to become the largest SHC market in Ghana, West Africa, and possibly the world.<sup>143</sup> The market is spread over 8 square kilometres of land, made up of around 5,000 (mostly open-air) stalls. Roughly 6 million items per week are re-circulated through the Kantamanto market. This also involves various business models of **re-value** through the repair and remaking of clothes. This constellation of activities employs up to 30,000 people in and around Accra, and up to \$10 million<sup>144</sup> worth of sales take place at Kantamanto every day.<sup>145</sup>

Upon arrival, textiles are sorted again with the best quality items accounting for about 20% of each bale. The second selection—around 30–40% of the bale—may have signs of wear. The third selection—worn, poor-quality pieces—accounts for roughly 40% of each bale and only 10% of retailers' income. Around 4% is known as *asei*, meaning 'under', and is unsellable and immediately becomes waste. Monitoring by the OR

Foundation shows an increase in the share of *asei* in relation to rewearables in imported bales and points back to the financial and employment risks that the most vulnerable actors in the SHC supply chain carry in their day-to-day, being locked into the debt cycle.<sup>146</sup>

The nature of the informal work of the market vendors and waste workers is characterised by several of the social and socioeconomic risks detailed above, including informality, debt and dependency. Perhaps the most concerning social impact that is distinctive to the Ghanaian context is the health impact on the *kayayei*: female head porters who transport bales of imported used textiles in Kantamanto. *Kayayei* translates from Ga and Hausa to 'she who carries the burden.' These women are mostly migrant workers who are paid 30 cents to US\$1 per trip for carrying bales that weigh around 50 kilogrammes. This work has been shown to have a devastating physical impact on spine health and can even be fatal.<sup>147 148</sup>

In many ways, Kantamanto is a microcosm of the complex social dynamics of the impact of used clothing exports; it serves as both a model of circularity, but is also deeply entwined with global injustice; while this should be applauded, it should not be romanticised.<sup>149</sup>

### USE PATHWAY: DISPOSAL

When used textiles cannot be re-sold at Kantamanto (due to quality, style, or sheer excess volume), they are disposed of. The health and environmental risks tied to informal landfilling mentioned in Chapter four are prominent around Kantamanto. Old Fadama, the open dumpsite near the market, is the largest unsanctioned landfill in Accra surrounded by market sellers and waste workers dwellings.<sup>150</sup> The North East side of Old Fadama is also a notable e-waste dump (most of which also originates in the Global North) revealing the inextricability of different waste streams in this larger waste crisis. The Kpone landfill (originally financed by the World Bank) was officially closed in 2015, but in the absence of alternative disposal channels, it continued to be used with various hazardous consequences including a month-long fire and several explosions in August 2019.<sup>151</sup> Soil and water plastic microfibre leachate from these locations is likely to be particularly high given the absence of regulation.

Furthermore, the OR Foundation beach monitoring project documents the phenomenon of textile-waste 'tentacles' on Accra's beaches. Textile materials in the water get tossed in currents and form 'tentacles' up to 30 metres long. An average of 38 new tentacles is reported weekly, and initial findings from researchers at the University of Ghana indicate high volumes of microfibres from textiles in water even several kilometres away from Accra.<sup>152</sup>

TOP IMPORT ORIGINS AND VOLUMES	GHANA	TOP EXPORT DESTINATIONS AND VOLUMES
<ul style="list-style-type: none"> <li>Used textiles (6309)               <ol style="list-style-type: none"> <li>United Kingdom: 44,484 tonnes</li> <li>China: 33,584 tonnes</li> <li>Canada: 10,809 tonnes</li> <li>Netherlands: 6,089 tonnes</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Net volumes:               <ol style="list-style-type: none"> <li>120,433 tonnes of 6309 imported</li> <li>1,216 tonnes of 6310 imported</li> </ol> </li> <li>Total imports:               <ul style="list-style-type: none"> <li>Used textiles (6309): 131,690 tonnes</li> <li>Rags and textiles scraps (6310): 1,216 tonnes</li> </ul> </li> <li>Total exports:               <ul style="list-style-type: none"> <li>Used textiles (6309): 11,257 tonnes</li> <li>Rags and textiles scraps (6310): 0.5 tonnes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Used textiles (6309)               <ol style="list-style-type: none"> <li>Côte D'Ivoire: 5,550 tonnes</li> <li>Thailand: 4,626 tonnes</li> <li>South Africa: 221 tonnes</li> </ol> </li> </ul>

Overview of used textile imports and exports.

NB: figures drawn from 2019 due to data availability limitations

NB: imports reported by Ghana may not correspond with exports reported by partners including the Netherlands.<sup>142</sup>



## KENYA: REUSE AND DISPOSAL DESTINATION

### USE PATHWAY: REUSE AND RE-VALUE

The Gikomba market in Nairobi is the largest SHC market in Kenya, employing thousands of second-hand retailers, upcyclers and waste workers. The majority of used textiles imports to Kenya come through the Mombasa freight port. While Mombasa has many SHC markets, a significant amount of imported bales are directly sent to Nairobi. Estimates from interviews conducted by the Changing Markets Foundation suggest that around 20–50% is designated as fagia—meaning the lowest quality of used clothing in Swahili—and is unusable on arrival. It is estimated that around 150 to 200 tonnes of used textiles that will immediately become waste enters Kenya every day.<sup>153</sup> This pattern corresponds with the comments from Dutch sorters, who were transparent about the very low quality of textiles going to Pakistan (and, ostensibly, onward to Kenya given re-export estimates.)

The decline of Kenya's domestic apparel industry in relation to highly-used textiles imports was emphasised more than in the Ghanaian context by interviewees. In relation to used textile imports, 85% of Kenya's textile plants have closed since the early 1990s, while cotton output is a tenth of 1990s levels.<sup>154</sup>

### USE PATHWAY: INCINERATION AND DISPOSAL

In terms of specific environmental impacts linked to used textiles in Kenya, the Nairobi River flows next to the Gikomba market. Both rewearable and shredded used textiles that cannot be sold for rewear are discarded, and end up becoming embedded in the banks of the river. Sometimes, they flow downstream to further disperse microfibres into the ecosystem, and sometimes they obstruct the current completely, leading to floods.

Dandora is an unofficial landfill covering 30 acres near Gikomba. Dandora was declared full by the World Bank in 2001, however, similarly to the Korle landfill in Accra, it is still fully operational with an estimated 4000 additional tonnes of waste—including large volumes of used clothes from Gikomba—entering the overflowing landfill every day.<sup>155</sup> Fires are regularly lit on the surface of piles of waste and an interviewee reported that fires burning used textiles in the open near the market are found everywhere, and are often used for peanut roasting. This means that there is a “constant smog” of smoke over the surrounding area, contributing to health concerns for local residents and students in the two schools located nearby as chemicals from textile fibres are released into the air.<sup>156</sup>

## RESEARCH GAPS AND LIMITATIONS

We recognise the significant limitations of this study's approach, whereby insights extracted from literature were validated through a limited number of online interviews. Nonetheless, we have engaged 12 stakeholders from across the focus countries: three from Ghana, four from India, four from Kenya, one from Poland and five from Pakistan. These include one sorter -exporter company, six recycling firms, six impact organisations, two consultants and one university. A summary of the interviews can be found in [Annex B](#).

We also recognise that the schematic country archetypes applied (Import-export, Recycling hub and Reuse and disposal destination) match the existing data on trade flows of used textiles but do not reflect the complexity of qualities and use pathways of used textiles in researched countries.

The informal economy is estimated to employ 60% of the world's population and house 80% of enterprises worldwide, yet most studies and policy approaches assume that the economy is part of a regulated formal economy. The circular economy has been proposed as a solution to eradicate poverty, yet research on poverty alleviation is lacking. Therefore further research on the benefits of formalisation in the circular economy is needed.

There is limited country or regional-level analysis of the socioeconomic impacts of the circular economy in the Global South, especially compared to similar studies in the Global North.

To gain a deeper understanding of the complexities of this research, claims collected through interviews need to be validated through fieldwork and complemented by the inclusion of a wider range of perspectives from a more diverse stakeholder group. Notably, SHC import associations and government officials in focus countries are missing from the current picture presented in this report.

Further research could involve social auditing, conducting material life cycle analysis, applying the Decent Work framework<sup>157</sup> lenses and mapping the current and future capacity of local policies in mitigating negative impacts and to create a roadmap for improvement.

There is significant variation across the geographies; each destination country deserves more attention to understand the way that social and environmental impacts play out in their specific economic and political contexts. The employment generated by the recycling sector in Panipat is very different to the work of Kayayei or informal waste pickers at Kantamanto. Further understanding is called for to generate more imaginative and effective solutions that cannot be arrived at without longer-term localised partnerships. Furthermore, there are locations that receive high volumes of used textiles from the Netherlands; Cameroon in particular requires a lot more attention that was beyond the scope of this project.

TOP IMPORT ORIGINS AND VOLUMES	KENYA	TOP EXPORT DESTINATIONS AND VOLUMES
<ul style="list-style-type: none"> <li>Used textiles (6309)               <ol style="list-style-type: none"> <li>China: 87,802 tonnes</li> <li>United States: 22,062 tonnes</li> <li>Canada: 12,922 tonnes</li> <li>Pakistan: 10,655 tonnes</li> </ol> </li> <li>(16) Netherlands: 882 tonnes</li> </ul>	<ul style="list-style-type: none"> <li>Net volumes:               <ul style="list-style-type: none"> <li>176,030 tonnes of 6309 imported</li> <li>36 tonnes of 6310 exported</li> </ul> </li> <li>Total imports:               <ul style="list-style-type: none"> <li>Used textiles (6309): 177,387 tonnes</li> <li>Rags and textiles scraps (6310): 25 tonnes</li> </ul> </li> <li>Total exports:               <ul style="list-style-type: none"> <li>Used textiles (6309): 1,357 tonnes</li> <li>Rags and textiles scraps (6310): 61 tonnes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Used textiles (6309)               <ol style="list-style-type: none"> <li>Democratic Republic of the Congo: 756 tonnes</li> <li>Rwanda: 355 tonnes</li> <li>Burundi: 68 tonnes</li> </ol> </li> </ul>

Overview of used textile imports and exports.



# 6

## THE WAY FORWARD AND RECOMMENDATIONS

This chapter gives a brief overview of the policy environment governing the used textiles landscape in the Netherlands and EU, followed by recommendations on how some of these possible legislative, economic and policy mechanisms can create an enabling environment for more equitable circular systems for post consumer textiles.

### POLICY IN THE NETHERLANDS: CIRCULAR TEXTILES 2050 AND THE EXTENDED PRODUCER RESPONSIBILITY SCHEME FOR TEXTILES

The Dutch *Circular Textiles* policy programme<sup>158</sup> sets out the roadmap towards a **fully circular textiles industry by 2050**, as developed by the Ministry of Infrastructure and Water Management and rolled out in collaboration with the value chain partners.<sup>159</sup> It sets the target of increasing the reuse of textiles to 10% and increasing the share of recycled post-consumer and sustainable materials in new textile products on the Dutch market to 25% by 2025. In addition, 30% of the materials and products sold in the Netherlands must be recycled after collection, if immediate reuse is not possible. Progressively, by 2030, all textile products produced in the Netherlands must contain 50% sustainable material, of which at least 30% are recycled material, 15% are reused within the Netherlands and 50% of the materials and products sold on the Dutch market must be recycled. The EPR scheme is working towards more ambitious objectives.

Part of this policy programme explicitly targets the 'disposal stage' of the textiles life cycle. Promisingly, it has been highlighted that this policy also coheres with Foreign Trade and Development Cooperation policies, particularly with respect to **international corporate social responsibility (ICSR)**.<sup>160</sup> In light of the findings of this report, **the policy synergy should be further explored in a way that explicitly incorporates strategies for mitigating adverse impacts on the recipient countries of used textiles** and the role that the Dutch Government can have therein through foreign trade and development partnerships. Currently, the predominant focus is the implementation of circular pathways in high-consumption countries that export high-volumes of used textiles.

The most novel mechanism at play in the Netherlands is the **Extended Producer Responsibility (EPR)** scheme for textiles that came into force on the 1st of July 2023. EPR policies shift the burden for dealing with a product

at the end-of-life stage back to the producer, in line with the Polluter Pays Principle,<sup>161</sup> which is enshrined in Article 191(2) of the Treaty on the Functioning of the EU<sup>162</sup> with the explicit aim of reducing environmental impacts.<sup>163</sup> In the EU, EPR systems are based on the Waste Framework Directive.<sup>164</sup> EPRs are characterised by the shifting of the responsibility (economically and/or physically; fully or partially) upstream; and the provision of incentives to producers to take environmental impact into account in product design.<sup>165</sup> At the same time, EPRs in the form of collective producer responsibility have yielded very limited results in terms of eco-design,<sup>166</sup> as exemplified by the packaging sector.

The Dutch textiles EPR is the second textiles EPR policy in Europe after France's, which was introduced in 2007. It applies to all parties marketing clothes on the Dutch market, including manufacturers and importers of clothing (and work clothing), fashion brands, and textiles (waste) collectors. Targets aim to steadily increase reuse and recycling by up to 75% by 2030.<sup>167</sup> The ways that EPR could be adapted towards more environmentally sound and socially equitable outcomes will be described later in this chapter.

### EUROPEAN POLICY

The policy landscape for the management and export of used textiles in and from Europe has been progressively changing to align with environmental ambitions, with the main milestones being the **EU Strategy for Sustainable and Circular Textiles**<sup>168</sup> in March 2022. The Strategy implements the commitments of the **EU Circular Economy Action Plan (CEAP)** (2020) and the European Green Deal and promises to take an explicit stance against the dominant 'fast fashion' business model. However, the primary aim of the Strategy is to shape a 'greener and more competitive [textiles] sector that is resistant to global shocks.'<sup>169</sup> However, **the findings of this report necessitate a bolder vision and more international orientation**, with a strong commitment to taking responsibility for the socioenvironmental harms generated by high rates of textile consumption in Europe even when these materialise further away.

An instrument that will play a significant role in addressing the concerns highlighted in this report is the **EU Waste Framework Directive (WFD)**. While there are several legal acts regulating textile products (for example REACH and the Textiles Labelling



Regulation), the WFD is the only legal instrument regulating all aspects of textile waste management, including the specific obligations to ensure separate collection, treatment and reporting requirements. The directive calls for all EU Member States to establish separate collection systems for used textiles by the beginning of 2025. The Netherlands already has a fairly advanced textile collection infrastructure.<sup>170</sup> However, one point for potential improvement raised in interviews with collectors and sorters was the inefficiency of the frequent municipality tender cycle. Municipalities in the Netherlands contract private collection companies for the separate collection of textile waste for a maximum period of four years, after at least some of the collection and sorting infrastructure needs to be re-operationalised from scratch, adding costs to the process. Multi-stakeholder public-private collaboration at the national and municipal levels could help to develop more efficient collection processes in the Netherlands to make sure that the funds collected through the EPR are redistributed in the most effective way possible. At the same time, pan-European separate collection systems for used textiles will lead to larger volumes collected, effectively moving more poor-quality textiles from mixed municipal waste into European sorting facilities and their sorting partners in third countries. Already today, 55% of textiles collected in the Netherlands are not sorted domestically, while Dutch sorters import used textiles that are cheaper, compared to those collected locally. The diminishing quality of used SHC has been the common denominator between Dutch sorters and all of the interviewees contacted in this study and constitutes one of the biggest bottlenecks for circular textiles that need to be addressed through systemic action.

The WFD aims to improve textile waste management in line with the Waste Hierarchy. Its impact is perhaps the most significant in terms of its implications for the EPR scheme. The most recent proposed amendments<sup>171</sup> to the WFD stress the need for the union-wide harmonisation of waste prevention, and preparation for textile reuse and recycling and for the EPR schemes. Key points for harmonisation to ensure the EPR's effectuality include: 1) consistent definitions of 'producer' to ensure appropriate entities are obligated across Member States and 2) a harmonised fee structure to minimise the reporting burden for actors operating across different Member States.<sup>172</sup> Similarly, the June 2023 resolution on the Textiles Strategy<sup>173</sup> calls for the harmonisation of end-of-waste criteria

definition across Member States to be introduced in the WFD. Textiles were identified as the second priority stream for end-of-waste criteria definition, and the latest WFD amendment states that the European Commission shall take as a starting point the most stringent and environmentally protective end-of-waste criteria established in Member States. This is under debate and in development at the time of writing, but it is critical to note that the eventual proposed definition and its geographic scope will have extensive influence on the way the Dutch EPR develops, as well as the way that other recommendations from this report may be carried out.

Importantly, the June 2023 resolution on the *Textiles Strategy*<sup>174</sup> also calls for 'the export of waste to non-EU countries to only be allowed when the receiving countries manage it under human health and environmental protection standards that are considered equivalent to those of the EU, including respect for international conventions on labour rights, and that all receiving facilities should be audited for environmentally sound management prior to exports'.<sup>175</sup> **This approach contains the potential to address many of the social and environmental risks identified in this study if implemented successfully.**

Other policies that do not relate directly to used textiles or 'waste', but play an important role in a systemic confrontation of the issue include the ***Ecodesign for Sustainable Products Regulation (ESPR)***, which aims to make products more 'durable, reliable, reusable, upgradable, repairable, easier to maintain, refurbish and recycle, and energy and resource-efficient',<sup>176</sup> through mechanisms such as the ***Digital Product Passport, labelling regulations or requirement of using minimal amount of recycled content in new products***.<sup>177</sup> Two final pillars worth mentioning in this emerging regulatory framework are the ***Corporate Sustainability Reporting Initiative (CSRI)***, the ***Corporate Sustainability Due Diligence Directive (CSDDD)*** and the ***Green Claims Directive (GCD)***. The CSRI is a piece of legislation that was passed in January 2023 (replacing the EU non-financial reporting directive), mandating that nearly 50,000 large organisations and SMEs report on ESG metrics. **The CSDDD**—which is in the process of being approved by Parliament and Council—**would have a more comprehensive scope, aiming to prevent human rights and environmental risks along the entire value chain, including those taking place due to disposal in destination countries**.<sup>178 179</sup> The GCD was

adopted in March 2023, establishing comprehensive guidelines for green marketing and demonstrating the credibility of green claims.<sup>180</sup>

There is a huge amount of potential reflected in the range of policies and aims outlined here. It remains to be seen how this constellation of instruments, strategies and developments will be applied to formulate and implement a holistic vision for the textiles sector of improved durability, recyclability and repairability while actively practising respect for social rights, health and safety across all steps of the value chain. The following recommendations highlight some potential ways forward.

## RECOMMENDATIONS

To be able to harvest and equally distribute the socioeconomic benefits of circular activities in the broader end-of-life textiles value chain, the combined efforts of governments, research and impact organisations, businesses and workers is required. Through social dialogue and the formulation of targeted and transformative policy, as well as soft and economic measures at the local, regional, national and European levels.

Our recommendations aim to address the social and environmental impacts of the Netherlands' used textiles exports from a holistic perspective, recognising that risks cannot be meaningfully mitigated without expanding the geographic and value-chain focus. While foregrounding the Netherlands' role and used textile exports, we also consider how this fits into the broader contextual landscape of the whole textiles value chain across the EU and beyond.

## ACCOUNTABILITY

One of the most important implications of our findings is that **export bans are not the most appropriate way to address used textiles' adverse socioenvironmental impacts**. Despite increasingly visible social and environmental issues—such as 'waste mountains'—stopping export flows would cut off the source of the livelihoods of hundreds of thousands of people and their access to rewearable SHC, which is the best solution for otherwise wasted textiles, in the waste hierarchy. In addition, bans do not seem to be an effective way to eliminate unwanted activities, as the illegal waste flows already exist, generating a separate set of risks.

For this reason, we express some concern with the EU *Textiles Strategy* and Waste Shipment Regulations in terms of its ambition to 'help restrict the export of textile waste'.<sup>181</sup> Export reductions would need to be carefully planned in a collaborative, inclusive process with recipient countries' national governments, trade organisations and impact investors to ensure the parallel development of alternative industries and improved management of exports.

Instead of export bans, we recommend that **high-volume exporting countries should have more legally binding and financial responsibility attached to used textile exports**. In particular, funds should be allocated and equitably distributed to those closest to the actual management of used textiles (both as waste and as a resource). These resale, recycling, and disposal operations are mainly carried out by informal actors in Global South markets. **We contend that these are the spaces in which EPR funds should more directly engage**, as it is these actors that are actually responsible for textiles at the end-of-life stage, affected by impacts and exposed to risks.<sup>182</sup> Currently, in the French EPR scheme, none of the money made moves to these spaces. We recommend that the Netherlands broadens its EPR to pioneer a more equitable and global realisation of the policy's aims to set a strong precedent for EPR harmonisation in line with the WFD.

**Our specific recommendations relating to exports are:**

**Producer responsibility organisations may increase EPR fees to reflect the real cost of textile collection, processing and waste management.** Current estimates for Dutch Textiles EPR fees are an average of €0.03 per piece, increasing to €0.06 per piece in 2025<sup>183</sup> as estimated by the Stichting UPV Textiel, the producer responsibility organisation (PRO) implementing the policy in the Netherlands. These fall drastically below what has been calculated as the actual cost of only sorting textiles in Europe, estimated at €0,35,<sup>184</sup> not to mention internalising total costs of transport, processing and waste management and disposal costs. On the other hand, textile resale, logistics and waste management in Ghana add up to €1,48<sup>185</sup> per garment. With eco-modulation this could translate to an EPR fee between €0,47 and €2,34<sup>186</sup> per garment.



In an eco-modulated structure, EPR fees should reflect garment composition, sustainability, recyclability and reparability and not just weight, as in the current declaration rules.

**PROs may implement targeted<sup>187</sup> EPR fees to act as tool for reducing excessive volumes of new clothing and monitoring the production date.** Such a progressive fee mirroring the volumes placed on the Dutch market could work well together with a request to include the garment production date on the label or within the digital product passport. This would enable an effective mechanism incentivising more durable product design, by making it possible to monitor the use phase of the product by comparing the production date with the disposal date. Higher fees would be linked to larger volumes and lower fees would be possible if the product's use was successfully prolonged and proved.

**PROs may integrate an appropriate capital transfer mechanism into the EPR policy to promote the equitable distribution of fees along the whole value chain.** This should be developed in collaboration with governments, trade coalitions and impact organisations in recipient countries. This kind of fund for change and justice should be primarily financed by producers, with for-profit actors in the reverse value chain (including sorters and collectors, who will directly benefit from the current version of EPR), also contributing through knowledge and technology transfer to establish more equitable, international solutions in recipient countries. Solutions funded may include making activities like repair, refurbishment and recycling more affordable and accessible to end consumers, therefore making them a more attractive option than disposal. Similar initiatives already exist at a local scale, for example, making clothing repairs more affordable in Amsterdam<sup>188</sup> and promoting toy maintenance, repair and reuse through the French EPR.<sup>189</sup>

**Dutch sorters may individually or under the leadership of Vereniging Herwinning Textiel leverage existing knowledge and policy to establish detailed preparation for reuse criteria and transparent feedback loops between collectors, sorters, exporters, retailers and waste workers.** The sorters and collectors operating in the Netherlands who were interviewed in this study reported good relations with value chain partners and the existence of positive feedback loops in terms of stock quality and fair prices. Anecdotal evidence

exists of importers sending videos to exporters in the Netherlands to show how the desirable, rewearable clothing looks on their local market. While this might be a result of market dynamics and linked to relatively high collection rates of textiles in Europe after covid-19, it could be used as an example of what could be possible once the collection rates are even higher once pan-European separate collection is implemented. It must be noted, however, that study participants from Ghana and Kenya reported that retailers did not experience any feedback loops of this kind. This means that, in most cases, the most vulnerable value chain actors tend to absorb socioenvironmental risks brought by textiles exported for reuse, that turn out to be not meeting the reuse criteria. It also needs to be noted, that the type and size of bales that SHC is imported in is suitable only for shipping, but ignores the needs for safe work of head porters and retailers who eventually transport and process them.

We recommend the establishment of coalitions or forums where the knowledge and experience of collectors and sorters who operate with this kind of feedback loop may be leveraged to improve accountability and inform the End-of-Waste and Preparation for Reuse criteria definition, which is currently under research and in development. In the future, product passports can also clearly indicate a product's durability, reparability and recyclability in a way accessible to all value chain actors globally to help facilitate more circular use and management both inside and outside the EU.

The Ministry of Economic Affairs and coming climate policy may serve to scale and improve fibre sorting at point-of-origin to increase the availability of post-consumer textile waste fit for recycling in the Netherlands and Europe.

Best sorting practices are defined today providing guidance on manual sorting for reuse and recycling<sup>190</sup> yet, without affordable and at scale near infrared (NIR) sorting infrastructure in Europe and the Netherlands, it will not be possible to realise the potential of up to 74%<sup>191</sup> of the low-value post-consumer textiles that are technically fit for closed loop recycling. Research<sup>192</sup> shows these are currently sold at cost as low-value rewearables, therefore often exported, and most are directed towards the wipers industry, although they are technically suitable for closed-loop mechanical and chemical recycling. The reason the sorting infrastructure is lacking is linked to insufficient recycling infrastructure in Europe,<sup>193</sup> which could

otherwise act as a pull to redirect these materials from lower to higher-value circular applications. Another way of looking at it is to simultaneously invest in the technology and infrastructure in geographies where these textiles are already overflowing.

In addition, to ensure equity, these developments should be supported through a general **legislative focus on transparency and monitoring.** Specific instruments that may be leveraged here alongside the EPR are the Digital Product Passport, the CSDDD, and the CRSI. In combination, these should give policymakers a better perspective on activity within the value chain and highlight key areas for policy intervention. Ideally, the policy will then be targeted to compel the highest profiting value chain actors to take responsibility for the socioenvironmental harms that accrue further away.

## DECENT EMPLOYMENT AND RECOGNITION

The used textiles value chain involves an unquantifiable but vast number of informal jobs, which correlates with a higher risk of unsafe employment, often characterised by a lack of minimum wage, employment security, safety standards enforcement, regular income, access to funding, equitable business relations and accountability structures. At the same time, this informal sector is constituted by viable but under-recognised circular business models involving economies of repair, remanufacturing, reuse, and recycling.

To address these interrelated issues and to bring current practice in line with Dutch International Corporate Social Responsibility<sup>194</sup> (ICSR), it is crucial to first and foremost safeguard the most vulnerable workers in the reverse value chain by strengthening legislative instruments—such as CSDDD—and to drive decent employment in line with the globally-recognised decent work standards of the International Labour Organization<sup>195</sup> or criteria for equivalent of Environmental Sound Management<sup>196</sup> with social standards integrated. This may be further supported by the Dutch Government by creating an enabling environment for businesses and public-private platforms. It can do so through a variety of 'soft instruments' such as rewarding partnerships with labour rights organisations, unions and the worker-led cooperatives involved in used-textiles-related activities in recipient countries: particularly those with expertise in the informal waste sector.

Actors in recipient countries already employ innovative solutions for managing and extracting value from used textile materials. However, currently, exporting countries—including the Netherlands—are not accountable for providing the financial resources needed to sustain, develop, and where appropriate scale these circular waste management strategies. Dovetailing with the above suggestions about EPR fee distribution, sorters, collectors and impact investors could be engaged to establish a **waste management innovation fund for waste management, resale, repair and recycling entrepreneurs in recipient countries.** Technology transfer will play a key role here, and inspiration can be taken from projects like 'Omzet met Impact' co-financed by MVO<sup>197</sup> that enabled the creation of appropriate waste management infrastructure and piloting textile waste recycling. Crucially, this should happen alongside the elevation of under-recognised forms of textile revaluing innovation emerging on the ground, and by supporting cooperatives and communities involved in textile and waste processing and revaluation as exemplified in Kenya by projects funded by GIZ<sup>198</sup> or USAID.<sup>199</sup>

To complement and ensure the most effective realisation of these ambitions, we also recommend setting up an **inclusive knowledge exchange partnership** between Dutch sorters and recipient country importers and retailers to further improve the market fit of exports, as well as develop a deeper understanding of risk drivers. To make this knowledge exchange truly inclusive, these programmes should be carefully designed, for example in line with Pereira et al.'s framework for 'transformative spaces'.<sup>200</sup>

## ADDRESSING THE ROOT CAUSE

As discussed, a systemic approach is required to combat the social and environmental risks associated with used textile exports. **Many of the adverse impacts are a direct result of the vast volumes resulting from overproduction, lack of longevity and the low-quality of garments. Solely addressing exports will not solve these problems.** Targeting these adverse impacts requires addressing their root causes as already recognised in many policy mechanisms. The Dutch and EU *Circular Textiles Strategies*, the CRSD and the CDDD all require significant action at the design and production levels.



To further explore a truly systemic approach to textile exports, the Narrow, Slow, Regenerate and Cycle framework was applied.<sup>201</sup>

This framework makes clear significant gaps in the policy landscape described. For example, currently, the Dutch EPR's stated ambitions refer only to recyclability and reuse; without an explicit commitment to material reduction or 'narrowing'. **The low EPR rates, lack of eco-modulation and absence of volume disclosure requirements contribute to a general lack of incentivisation for reducing the amount of new clothing produced.** Without this crucial 'narrowing' component, it remains unlikely that the socioenvironmental harms outlined in this study can be meaningfully addressed. 'Narrowing' and downscaling should be underpinned by citizen engagement and education strategies; culturally embedding principles of slow fashion and responsible consumption can enable creative innovation and more sustainable economic development.

**More promisingly, there is a lot of scope within the Dutch and EU Circular Textiles Strategies to promote slowing, cycling and regeneration.** ESPR contains several strategies oriented in this direction. For example, Ecodesign criteria encompass item durability, recyclability, reparability, and the possibility of remanufacturing and recycling. The updated Ecodesign criteria also aim to increase the recycled content in new products and at the same time minimise the presence of substances of concern. We recommend specifying in Dutch legislation how one can promote the use of recycled content and monitor the presence of restricted substances. These developments apply to the context of used textiles exports in two major ways: firstly and more positively they imply that the quality of the used garments being exported will be less environmentally harmful; and secondly, they imply that more used textiles will remain within their country of origin as recycling and reuse markets develop. Slowing and Cycling strategies can be enacted through more circular design and the incorporation of post-consumer recycled content in new products. This could potentially be influenced by the eco-modulated EPR

fee, however only when the fee would be meaningful in the total product cost structure. Current bonuses offered under the French EPR apply to only 0.7% of items reported as eligible in 2020 based on either product durability or recycled content.<sup>202</sup> The small size of the fee in this case does not constitute enough of an incentive to change product design.<sup>203</sup>

**We recommend, in alignment with Dutch ICSR, that careful monitoring of these developments is carried out to ensure that emerging recycling and reuse markets in the Netherlands do not develop at the expense of existing markets in recipient countries.**

It remains problematic that no viable business case exists today proving the possibility of the internalisation of the broad socioenvironmental impacts and costs, brought by the used textiles trade, into the price of new textiles being placed on the market in Europe, or the Netherlands. Utrecht University found that collection and recycling currently cost less than 2%<sup>204</sup> of the new product price, sometimes even as little as 0.1%, which is too small to act as a price incentive for better design or material choice, nor for municipalities, collectors and sorters to change their reliance on third countries that currently absorb their resale, recycling and disposal costs.

Finally, there still needs to be greater collaboration between different ministries (I&W, Foreign Affairs, EZK) and government organisations (like RVO) to create market incentives for more responsible business practices across the entire value chain.

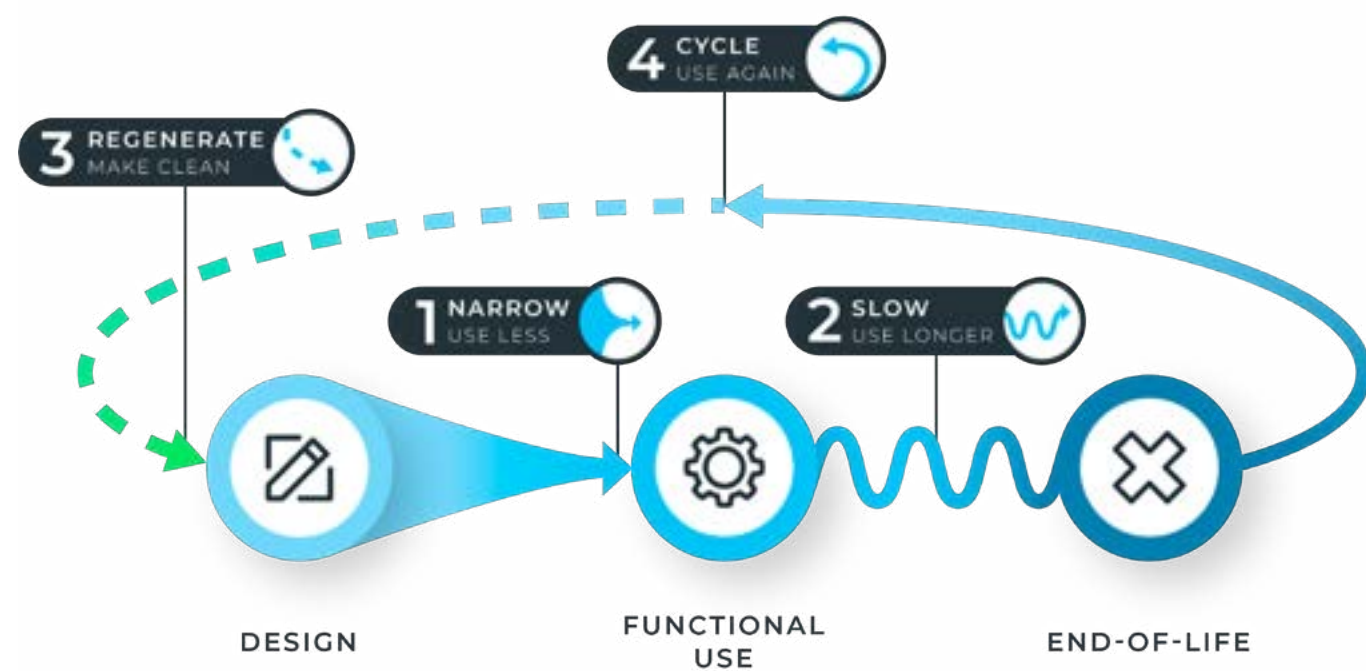


Figure three shows the four flows: narrow, slow, regenerate and cycle.



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