OXFORD ECONOMICS

THE SOCIO-ECONOMIC IMPACT OF SECOND-HAND CLOTHES IN AFRICA AND THE EU

REPORT FOR HUMANA PEOPLE TO PEOPLE AND SYMPANY+

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GLOSSARY

Circular economy: Model of production and consumption which emphasises sharing, reusing, repairing, refurbishing, and recycling of existing materials and products. In this way, the life cycle of products is extended, waste is reduced, and the use of raw materials is minimised. The circular economy model can be contrasted with the traditional linear economic model, based on the take-make-consume-throw away pattern.

Digital product passport: a digital representation of a product's information throughout its lifecycle, from cradle to grave.

Economic impact assessment: a study that measures/estimates the economic activity produced by a single organisation/policy/program/project, and considers the impact on the overall economy, employment, and household income.

Global North: The richest and most industrialised countries, which are mainly in the northern part of the world. In this report, the Global North often refers to the countries of the EU27+.

Global South: The less economically advanced and industrialised countries, which are mainly in the southern part of the world. In this report, the Global South often refers to the studied African countries of Ghana, Kenya, and Mozambique.

Green jobs: All jobs within a green industry, following the industry-based definition of the UK's Office for National Statistics.

Gross Domestic Product (GDP): GDP is the monetary value of all finished goods and services made within a country during a specific period; it differs from GVA in that it provides an overarching view of the whole economy. GDP is obtained by adjusting taxes and subtracting subsidies on products to GVA.

Gross Value Added (GVA): GVA is a measure that quantifies the value created through value-adding activities. It is calculated as the difference between the value of output of goods and services and the value of inputs used in their production. GVA can be measured at different levels, e.g. at the level of an individual producer, a particular industry, a country, etc. At country level, GVA plus taxes on products less subsidies on products equals GDP.

"Kayayei": a Ghanaian term for a female porter or bearer who transports goods to and from the market.

Mechanical recycling of textiles: Process of breaking down used or discarded fabric into its fibrous form through physical methods such as shredding, tearing, or carding, without altering the chemical structure of the material.

Not-for-profit organisations: Organisations whose activities are aimed at a public or social benefit rather than generating profits for individuals or shareholders.

Polluter Pays Principle: one of the key principles of the EU's environmental policy that states polluters should pay for the cost of their pollution. The principle is based on many international environmental laws, and it contributes positively to reducing pollution.

(Post-sorting) Textile waste: Disposed clothes or other textiles that have been deemed unsuitable for recycling or reuse by a professional sorter.

Price elasticity: a measurement on how much consumers react to a change in prices of goods and services. Although there are two types of price elasticity (demand and supply), this report chiefly considers the price elasticity of demand. If demand is highly price-elastic, this means that a small change in prices corresponds to a large change in demand, and vice versa.

Second-round sorting/categorisation: Further categorisation of second-hand clothing in sorting centres in the Global South. This might include the breaking up of large import bales, the classification of clothing into designated, demand-specific categories (e.g. pants, women's t-shirts, etc.), and the repackaging into smaller bales.

SHC companies: Commercial and not-for-profit organisations whose primary business activities involve operations within the second-hand clothing industry, including the collection, sorting, wholesale distribution, or retail sale of second-hand clothes.

Socioeconomic impact: The combination of social and economic impact. The economic impact includes the value-added impact, while the social impact concentrates on employment.

Sorting: The multi-step process in which textile waste is assessed to determine its subsequent use (or final disposal). This process includes both the sorting of collected textile waste into one of three main categories—(1) reusable textiles, (2) recyclable textiles, and (3) (post-sorting) textile waste—corresponding to the waste hierarchy, as well as subsequent more granular sorting steps within these main categories.

Textile recycling: Process of recovering fibre, yarn, or fabric from textiles, and reprocessing material into new, useful products.

Textile reuse: Reuse of discarded textiles (e.g. clothes) either in the condition in which they are, or after modification (repairments, restyling, etc.); second-hand clothes (SHC) are a result of textile reuse.

(Unsorted) Textile waste: All disposed clothes or other textiles (rags, blankets, cloths, etc.) that have not (yet) undergone a sorting operation by a professionally trained sorter count as textile waste. This definition follows the expected revision to the Waste Framework Directive which initially classifies all collected used textiles as waste. Textile waste does not necessarily lack economic value nor end up in landfills/incineration plants, etc.

Value-adding activity: A value-adding activity is an activity that increases the economic value of a product or service. For example, textile sorting is a value-adding activity as sorted textiles have a higher economic value than non-sorted textiles/textile waste.

Waste hierarchy: The foundation of EU waste management, established in the Waste Framework Directive. It establishes a five-step order of preference for waste management, namely (1) waste prevention, (2) preparing for re-use, (3) recycling, (4) recovery, and (5) disposal, with (1) being the most preferred and (5) the least preferred waste management option.

ABBREVIATIONS

ADPP	Ajuda de Desenvolvimento de Povo para Povo
AfCFTA	African Continental Free Trade Area
AGOA	African Growth and Opportunity Act
AMCEN	African Ministerial Conference on the Environment
CEAP	Circular Economy Action Plan
CIF	cost, insurance, and freight
EAC	East African Community
EPR	Extended Producer Responsibility
ESPR	Ecodesign for Sustainable Products Regulation
EU27+	European Union plus the United Kingdom
FOB	free on board
GDP	Gross Domestic Product
GEAP	Green Economy Action Plan
GHS	Ghana-Cedi
GSM	Global Sustainability Model
GVA	Gross value added
KEBS	Kenya Bureau of Standards
KES	Kenyan Shilling
MDG	Millenium Development Goals
MZN	Mozambican metical
NDC	Nationally Determined Contribution
NGO	Non-government organisation
PPP	Polluter Pays Principle
SDG	Sustainable Development Goals
SHC	Second-hand Clothes/Clothing
SWOT	Strengths, Weaknesses, Opportunities, and Threats
UAE	United Arab Emirates
UN	United Nations
UNGA	United Nations General Assembly
VAT	Value-added tax
WSR	Waste Shipments Regulation
WTO	World Trade Organization

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EXECUTIVE SUMMARY

The second-hand clothing (SHC) industry does not only significantly reduce the environmental impact of textile production but also has an underexplored socioeconomic impact. By promoting garment reuse, extending apparel lifespans, and lowering the demand for new textiles, the SHC industry plays a pivotal role in reducing the environmental impact of textile production. The industry significantly lessens the environmental footprint of clothing items, with reused textiles requiring just 0.01% of water and saving about 3 kg of CO_2 per item compared to the production of new clothing (European Recycling Industries' Confederation, 2023). Less explored, are the contributions of the SHC sector to economic value, employment, and a more sustainable and inclusive global economy.

This report, commissioned by Humana People to People and Sympany+, aims to quantify the socioeconomic impacts of the SHC industry. More specifically, it analyses the socioeconomic impact of the SHC industry in the European Union and the United Kingdom (EU27+), as well as in three selected African countries: Ghana, Kenya, and Mozambique. Utilising a comprehensive multi-method approach—including literature review, expert interviews, quantitative surveys, trade data analysis, and qualitative fieldwork—the study offers an in-depth understanding of the value chain, its socioeconomic impacts, and the policies shaping the industry.

VALUE CHAIN OF THE SHC INDUSTRY

The value chain of the SHC industry involves several key stages, starting with collection and moving through sorting, wholesale, retail, and ultimately, consumer purchase. Initially, clothes are discarded by individuals in the Global North at various collection points managed by SHC companies, including commercial and not-for-profit organisations. These companies collect used textiles through different contracting mechanisms, which include economic transactions such as fees paid to municipalities, and ultimately sell the collected textiles to dedicated sorting companies. The collected clothing serves as the feedstock for the industry, fuelling all subsequent processes. In the following sorting stage, items undergo meticulous categorisation based on their potential for reuse, recycling, or disposal aligning with the waste hierarchy. Sorting centres in the EU27+ typically identify four main categories: clothes suitable for retail in Europe, those destined for markets in the Global South, textiles that are non-reusable and earmarked for recycling, and clothes that cannot be repurposed.

In contrast to common belief, every step involves financial transactions such as paying workers, buying, and selling clothes, and covering shipment costs.

Following the sorting stage, reusable clothes are either sold within the EU27+ or shipped to the Global South. In the EU27+, second-hand items are retailed through various outlets, including commercial retail shops and not-for-profit organisations, catering to a diverse range of consumer preferences and price points. In the Global South, the sorted clothing is bought and imported by wholesalers, who may further categorise the items by type and quality to meet specific customer demands. Wholesalers play a crucial role in distributing bales of clothes to both formal retail shops and informal market traders, who are ultimately responsible for ensuring that individual clothing items reach consumers.

In many countries in the Global South, including Ghana, Kenya, and Mozambique, the informal retail market is particularly significant. It often sells substantially more clothes than its formal counterpart. Informal retailers purchase clothing bales from wholesalers and individual pieces from formal retailers, and then conduct a wide array of business activities such as washing, ironing, and restyling clothes to enhance their market value. Other informal retailers also act as tailors and repairers, providing additional value to lower-quality clothes. Additionally, informal traders play an important role in distributing clothes to remote areas, ensuring accessibility to affordable clothing for a broader population.

SHC TRADE BETWEEN THE EU27+ AND GHANA, KENYA, AND MOZAMBIQUE

In 2023, the EU27+ maintained a leading position in the global SHC trade, exporting 2.2 million tonnes valued at $2.2 billion. At the same time, the EU27+ only imported 751,620 tonnes worth $923 million. The United Kingdom (UK) is the third-largest global exporter, following the United States (US) and China. Major European Union (EU) exporters include Germany, the Netherlands, Poland, and Italy. Notably, much of the SHC exported from the EU27+ remains within the continental boundaries, with some countries functioning as intermediaries that sort and re-export SHC.

The EU27+ is an important source of SHC for the three African countries selected in this study. For instance, the EU27+ directly supplied 47% of Ghana's SHC imports in 2023. Direct imports from the EU27+ make up a smaller share of imports in Kenya (13%) and Mozambique (18%). However, the total EU27+ impact on the countries SHC's imports might be higher. Intermediary countries, such as the United Arab Emirates (UAE) and Pakistan, also sort and process SHC collected in the EU27+, and are some of the top supplying markets for the Global South.

While SHC imports from the EU27+ became increasingly important to Ghana, the volume of direct EU27+ imports in Kenya and Mozambique declined. In 2023 alone, Ghana imported 53,970 tonnes of SHC valued at $44 million from the EU27+, with the volume of clothing imported having increased by 6%, and the value of imports growing by 28% over the last decade. In contrast, Kenya's imports of SHC from the EU27+ declined significantly by 2023, dropping to $26 million or 25,430 tonnes, a decrease of 36% and 40%, respectively, since 2013. Despite this, the overall volume of SHC imports into Kenya nearly doubled over the decade, driven by substantial increases in imports from China, Pakistan, the US, and the UAE. Meanwhile, Mozambique experienced a sharp decline in total SHC imports over the same period. By 2023, exports from the EU27+ to Mozambique declined from 19,736 tonnes ($21 million) to 7,600 tonnes, valued at $7.6 million—a 61% reduction in volume and a 64% reduction in value.

SHC trade from the Global North to the Global South has spurred policy changes in African countries to protect local textile industries, yet these efforts have largely failed to benefit local textile manufacturing. The substantial SHC trade from the Global North to the Global South has raised concerns about its negative impact on local textile industries, prompting policy changes in African countries. For example, the East African Community (EAC) initially agreed to ban all SHC imports by 2019 to protect and expand the local textile industry. However, Kenya withdrew from this initiative to protect its export-oriented clothing manufacturing industry, which benefits from the African Growth and Opportunity Act (AGOA) trade agreement. Other countries have taken similar initiatives to restrict SHC imports. Overall, SHC import bans did not significantly benefit local textile manufacturing. With local production being more expensive, large parts of the population demanding affordable clothing may substitute second-hand items with cheap new clothing imports rather than purchasing from the local industry. Moreover, factors such as relying on imported fabrics and lack of investment, combined with competition from cheap new clothing imports, make it difficult for the local industry to meet domestic market needs even in the absence of second-hand imports.

SOCIOECONOMIC IMPACT IN THE EU27+

In the EU27+, the SHC industry has a substantial direct socioeconomic impact. In 2023, it contributed €3.0 billion to the region's Gross Domestic Product (GDP) in 2023. This contribution is split between profits (€700 million) and compensation of employees (€2.3 billion). The retail sector accounts for 62% of this gross value added (GVA), followed by sorting and collection companies each contributing 19%. Key countries such as Germany and the UK benefit significantly, with the industry contributing €670 million and €420 million, respectively, to the GDPs of these nations alone. Additionally, the industry generates significant employment in the EU27+, with an estimated 110,000 jobs.[1] Most of these jobs, around 67,000, are provided by retail stores, while sorting facilities employ 35,000 individuals, and collection activities account for 11,000 jobs. Importantly, with the industry facilitating the collection of textile waste and the sorting of recyclable and reusable materials from waste streams, the industry creates green jobs for its employees.

The total economic contribution of the SHC industry in the EU27+ far exceeds its direct impact. Beyond its direct operations in collection, sorting, and retail, the industry also stimulates considerable economic activity through its supply chain spending (indirect effect) and the wage-induced consumption spending of employees (induced effect). In 2023, the industry supported an estimated total contribution of €7.0 billion to GDP in the EU27+, equivalent to 10% of Lithuania's GDP that year. Similarly, the industry also supported another 40,000 jobs through the indirect and induced channels of impact. Thus, the total employment stimulated by the industry in the EU27+ was around 150,000 jobs in 2023.

[1] Throughout this report, totals may not add up due to rounding.

Moreover, the SHC industry generated considerably wider socioeconomic impacts in the EU27+. In EU countries, the average gross income of the industry's employees in each country was, on average, around 12% higher than the respective national minimum wage. Moreover, the industry generated substantial job opportunities in less economically developed regions of the EU27+—including Bulgaria, Romania, and Poland, where around 22,000 workers were employed in the SHC industry. The European SHC industry also fosters equal-paid female employment opportunities, with women making up around 79% of its workforce and no reported difference in pay between men and women. Moreover, 77% of the industry's employees have a basic/intermediate educational background (e.g. lower secondary school, higher secondary school), compared to 60% in the overall workforce of the EU27+. This highlights that the SHC industry provides accessible job opportunities for which the formal education requirements are rather modest.

SOCIOECONOMIC IMPACT IN GHANA, KENYA, AND MOZAMBIQUE

The socioeconomic impact of SHC trade between the EU27+ and Ghana, Kenya, and Mozambique also generated substantial economic impacts in the three African countries. In Ghana, the direct economic impact of SHC imports from the EU27+ was substantial, with an estimated contribution of $35 million to the country's GDP in 2023. This impact is primarily driven by salaries and wages paid to employees, accounting for 71% of the direct GDP contribution. The industry also created approximately 14,000 formal jobs through the import of SHC from the EU27+. Similarly, the SHC trade between Kenya and the EU27+ provided a direct GDP contribution of around $9.2 million and supported approximately 3,600 formal jobs. In Mozambique, we estimate a direct GDP contribution of $2.7 million, driven largely by high salaries and wages paid to the industry's employees. The industry also created about 1,000 formal jobs within the SHC sector by importing used clothes from the EU27+.

The total economic impact of EU27+ SHC imports in the three African countries studied extends beyond direct contributions by stimulating economic activities through supply chain and wage-funded consumption spending. In Ghana, the total socioeconomic contribution of these imports across all three channels of impact was approximately $76 million and 22,000 formal jobs. Consequently, the industry stimulated a GDP multiplier effect of 2.2, with each Dollar in GVA generating an additional $1.20 elsewhere in the economy. Similar patterns were observed in Kenya and Mozambique, where the SHC trade with the EU27+ stimulated GVA of $24 million and 6,300 formal jobs in Kenya, and €11 million in GVA and 5,700 formal jobs in Mozambique, through the industry's direct impact, procurement, and the wage-financed consumption spending of employees. The tax revenues from SHC trade with the EU27+ in these countries were also noteworthy, stimulating between 0.1% and 0.4% of the total national tax revenues across all channels of impact in 2023. This included substantial import duties and Value-added Tax (VAT) collections, highlighting the sector's critical role in supporting government revenues.

The SHC industry in the three African countries is strongly characterised by its informality, with most employment being created through informal market traders and its employees. We estimate that the SHC trade with the EU27+ generated jobs for 43,000, 68,000, and 15,000 informal workers in the SHC industries in Ghana, Kenya, and Mozambique, respectively. Next to those working directly for SHC wholesalers and retailers, this includes employment opportunities for ancillary workers such as unloaders or transporters working within the sector. Furthermore, the informal industry supports several opportunities for women and youth. For example, 77% of the interviewed informal retailers in Ghana, Kenya, and Mozambique were women, and approximately 70% younger than 45 years old.

TABLE 1: ECONOMIC CONTRIBUTION OF THE SHC INDUSTRY RELATING TO SHC IMPORTS FROM THE EU27+ ACROSS CHANNELS AND METRICS, 2023

	Ghana	Kenya	Mozambique
Total SHC imports	111,000 tonnes	198,000 tonnes	50,000 tonnes
SHC imports from EU27+	54,000 tonnes	25,000 tonnes	7,600 tonnes
Direct GVA	$35 million	$9.2 million	$2.7 million
Total GVA	$76 million	$24 million	$11 million
Direct formal jobs	14,000	3,600	1,000
Total formal jobs	22,000	6,300	5,700
Direct informal jobs	43,000	68,000	15,000
Direct tax revenue (incl. VAT)	$33 million	$22 million	$8.3 million
Total tax revenue (incl. VAT)	$38 million	$23 million	$11 million

Source: Oxford Economics
Note: Mozambique import figures are based on the exports to Mozambique reported by the EU27+.

While substantial employment numbers are reported, the quality and consistency of jobs can vary depending on the formality of the employment and the country. Countries importing SHC such as Ghana, Kenya, and Mozambique generally have a highly informal workforce, with SHC imports from the EU27+ supporting the livelihoods of the many traders—including informal ones—in all three countries. Most of the interviewed traders reported relying on SHC trade as their sole source of income. While the formal industry enables full-time workers to earn "living wages" within Ghana, Kenya, and Mozambique, the employment provided by informal traders is characterised by low wages, as several informal traders reported that their workers also rely on other sources of income.

From a consumer perspective, one of the leading social benefits of the SHC industry is that it allows for affordable access to quality clothing. The affordability of SHC is the leading source of the growing demand—especially as quality is reported to be higher than of comparably cheap, newly produced clothing. However, the ultimate disposal of used clothing items after being worn in importing countries raises concerns regarding the environmental impact of the industry in importing countries. Even though recent studies (Circle Economy, 2023) have revealed that only a relatively small fraction of SHC imports can be considered waste (around 4%), this still amounts to a non-negligible absolute amount of waste due to the high volume of overall imports. As a result, countries importing SHC are often not equipped to handle any accruing waste when relying on their inadequate waste management infrastructure. While this is largely an issue resulting from lacking infrastructure—and does not only affect SHC but all industries and waste streams—it does affect the SHC traders' ability to properly dispose of possible textile waste.

CONTRIBUTION TO EUROPEAN, AFRICAN, AND INTERNATIONAL POLICY OBJECTIVES

The SHC industry is pivotal in achieving EU policy goals, especially concerning circularity. The European Green Deal, Circular Economy Action Plan (CEAP), and European Industrial Strategy, for instance, outline significant frameworks within which the industry operates. The industry contributes to the goals set out in these frameworks by promoting the reuse of textiles, reducing waste, and conserving resources. For example, by separately collecting post-consumer textiles, the SHC industry prevents used textiles from ending up in landfills and therefore contributes to municipal waste reduction. Furthermore, the industry exemplifies sustainable development, as the collection and recycling of used textiles is directly aligned with the EU's goal to decouple economic growth from resource use. By significantly contributing to the reduction of greenhouse gas emissions and supporting climate action, the SHC industry also supports the overall objectives set out in the European Green Deal.

By separately collecting post-consumer textiles, the SHC industry prevents used textiles from ending up in landfills and therefore contributes to municipal waste reduction.

The SHC industry contributes to advancing circular and sustainable development in the Global South, complementing the key policy objectives in Ghana, Kenya, and Mozambique. The policy goals in the Global South place a stronger emphasis on effective waste management and sustainable development, including job creation. For example, the Ghanaian CEAP and the National Solid Waste Management Strategy focus on managing textile waste and promoting recycling initiatives to support both environmental and economic resilience. Kenya's Sustainable Waste Management Act and Green Economy Strategy highlight the importance of building infrastructure to prevent waste and improve recycling capacities. Similarly, Mozambique's Green Economy Action Plan (GEAP) aims to embed green growth within national development priorities, fostering a circular economy. The SHC industry supports these goals by creating formal and informal employment opportunities, fostering local entrepreneurship, and reducing the environmental impact of textile waste through reuse and recycling initiatives.

The SHC industry significantly contributes to achieving the Sustainable Development Goals.

The SHC industry also contributes substantially to the achievement of several UN Sustainable Development Goals (SDGs). For instance, by providing affordable clothing to low-income populations and creating income-generating opportunities in both formal and informal sectors, the industry acts towards SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth). Moreover, with a large portion of the industry's workforce both in the EU27+ and the three African countries consisting of women, the industry also contributes to SDG 5 (Gender Equality). Finally, the industry's core practices naturally align with SDGs 12 (Responsible Consumption and Production) and 13 (Climate Action) by promoting the reuse and recycling of textiles, reducing waste, and minimising the environmental footprint associated with new textile production.

STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS (SWOT)

The SHC industry in the Global North has both strength and weaknesses. The SHC industry's strengths include its sustainable and circular nature, creating economic value without the use of new resources and extending the lifecycle of garments, offering options with a smaller environmental footprint than new clothes. The industry also provides substantial accessible employment opportunities across the EU27+, with little formal education requirements. With well-established networks, a broad customer base, and efficient collection, sorting, and transportation processes, the industry has been well-equipped to react to changes affecting the industry. Weaknesses, on the other hand, include the labour-intensive and therefore costly sorting stage. Whilst sorting is a key value-adding process, the high labour costs make it difficult for sorting centres to operate profitably. Another weakness of the industry relates to small shares of waste included in SHC exports, creating environmental and social challenges in recipient countries, and causing reputational costs for the industry.

Despite challenges, the industry is facing several opportunities in the Global North. Expected growing consumer demand driven by consumers' considerations of sustainability, affordability, and perception of SHC as unique and fashionable. With the industry's inherent business model closely aligning with EU policy goals, future regulatory changes, such as Extended Producer Responsibility (EPR) schemes, could reduce operational costs and therefore improve economic viability. Technological advancements in sorting and recycling could further increase profits by reducing operational costs or opening new revenue streams. Nevertheless, we also identify multiple threats to the industry in the Global North, with an overarching threat of overregulation. Inaccurate or overly stringent regulations could create additional costs, burdens, and other difficulties. Competition in the form of cheap fast fashion, and demand shocks because of geopolitical tensions or economic downturns, constitute further threats to the industry.

TABLE 2: IMPORTANT STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS IN THE GLOBAL NORTH

Strengths	Weaknesses
• Sustainable and circular business • Value added without the use of additional resources • Substantial employment opportunities in green jobs • Proven adaptability to market or regulatory changes	• Labour-intensive sorting processes • Risk for exports of poor-quality clothing ending up as waste
Opportunities	**Threats**
• Growing market for SHC expected • Industry is in line with EU policy objectives and might further be strengthened by regulatory changes • Advancing technologies in sorting or recycling	• Regulatory risks could hamper the industry's operations and create additional costs and burdens • Increased consumption of fast fashion might disrupt both the demand and supply of SHC industry • Economic volatility and geopolitical tensions; vulnerable given, for example, transport routes

As in the Global North, the SHC industry in the Global South is characterised by both strengths and weaknesses. The SHC industry's strengths include its support of numerous jobs at various stages of the value chain and its creation of low-threshold business opportunities for informal retailers. Moreover, the industry is an important and indispensable source of affordable, good-quality clothing for lower-income populations in the Global South. However, due to its import-dependent nature, the industry in the Global South is also vulnerable to any supply chain disruptions, highlighting an important weakness of the industry. Moreover, many workers involved in the industry, especially informal market traders, also face high degrees of economic insecurity and have disproportionally little market and bargaining power. There are also major concerns relating to waste challenges created by the trade with SHC. While waste is not a specific challenge to the SHC industry but to the general economy in many countries, the trade with SHC leads to unsellable textiles being disposed of in inadequate ways, mostly because of an inadequate waste management infrastructure and too little knowledge of recycling opportunities.

The SHC industry in the Global South faces a mix of opportunities and threats. Building up domestic facilities to categorise imports could help filter out waste textiles before they enter the retail stage whilst also fostering local jobs and skill development. Similarly, improved product description and frequent communication between sorting centres (in the Global North) and traders in the Global South could reduce waste or unsellable items being imported in the Global South. Leveraging the currently underdeveloped recycling efforts, for instance, through direct cooperation between wholesalers and retailers with local recycling companies, constitutes a further opportunity. Supportive legislation, like lowering import tariffs, could further strengthen the industry. However, there are also multiple threats present, often closely related to identified weaknesses. Supply chain disruptions

threaten the industry, whether they result from geopolitical conflicts, economic downturns, or increased import tariffs in the Global South or policy changes in the Global North. Among other things, the influx of inexpensive fast fashion also poses a significant competitive threat to the SHC industry—at least for customers less responsive to the lower quality often associated with the fast fashion clothes.

TABLE 3: IMPORTANT STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS IN THE GLOBAL SOUTH

Strengths	Weaknesses
• Properly paid employment opportunities, especially in formal part • Low-threshold business opportunities for local entrepreneurs • Provision of affordable quality clothing that meets local demands	• Highly import-dependent industry • Asymmetries in market/bargaining power between different actors in the value chain lead to precarious employment in the informal sector • Lack of widespread, adequate waste management infrastructure
Opportunities	**Threats**
• Introduction of domestic sorting centres can generate value-added contributions and reduce landfill waste • Potential for growth-stimulating collaboration between the SHC industry and local textile recycling and manufacturing companies • Supportive and adjusted legislation	• Influx of inexpensive fast fashion clothing imports • Vulnerability towards economic fluctuations in the Global North and Global South

POLICY RECOMMENDATIONS

Policymakers in the Global North should primarily focus on refining policies in a way that policy objectives align with the SHC industry's business reality. Policymakers in the Global North should implement and enforce EPR schemes for textiles. By holding producers financially responsible for the end-of-life management of their products, the costs for collection, recycling, or disposal of textiles will be borne by the original producer, incentivising the design of more sustainable and recyclable clothing. Properly assigning the EPR to producers of new clothes—and not subjecting SHC to EPR fees—can make collection and sorting of SHC financially sustainable, which may be necessary to ensure the economic viability of commercial and not-for-profit collectors and sorting companies. Additionally, developing clear end-of-waste criteria for textiles is crucial. Establishing stringent guidelines on sorting and end-of-waste criteria that differentiate SHC from waste will enable SHC exports and prevent the export of textile waste to the Global South without hampering the industry.

In the Global South, policymakers should better leverage the formal SHC industry's positive socioeconomic effects on GDP and employment while managing its overall environmental impact through the provision of a waste management infrastructure. Policymakers can support the SHC industry by supporting official SHC imports. Managing import taxes and SHC surcharges can make SHC more affordable for lower-income demographics. Findings suggest that import tariffs and

bans on SHC do little to support local manufacturing and rather benefit fast fashion producers. Moreover, encouraging the establishment of local sorting and processing facilities is essential. Investing in local sorting and processing facilities will foster job creation, support skill development, and contribute to economic diversification. Local categorisation and processing of SHC can further ensure that textiles which cannot be resold domestically are not disposed of unsustainably. Sorting centres can sell textiles directly to recycling companies or transport them to properly managed landfills, also strengthening the local recycling industry. Moreover, lower labour costs in the Global South can reduce operational costs associated with sorting and increase the affordability of SHC for retailers and consumers.

SHC businesses and not-for-profit organizations in the Global North can play an important role in the SHC's industry profitability and market expansion. They can enhance supply chain integration and develop e-commerce platforms to improve efficiency, reduce waste, expand market reach, and increase public awareness of the environmental benefits of purchasing second-hand clothing. SHC businesses and not-for-profit organisations in the Global North should focus on developing integrated partnerships within the supply chain for streamlined operations. Improved coordination between collection companies, sorting facilities, and retail outlets can ensure efficient matching of supply and demand, reduce waste, and improve overall profitability. We further suggest that retail businesses should increasingly develop e-commerce platforms to make SHC accessible to a broader audience, including consumers in remote areas lacking developed physical retail networks. With a significant percentage of EU consumers making online purchases, e-commerce provides a large customer base for SHC. Public awareness campaigns underlining the environmental benefits of purchasing SHC could also increase consumer participation and support sustainability goals.

Businesses and not-for-profit organizations in the Global South can help to increase the positive socioeconomic impacts of the SHC industry in the importing countries. As mentioned, businesses and not-for-profit organisations in the Global South could benefit from local sorting facilities enabling a better matching of supply and local demand, benefitting both wholesalers (who could charge higher prices) and retailers (who would have to deal with less unsellable textiles). Additionally, establishing associations for informal market retailers could help address power asymmetries in the market. Trade associations can provide a voice for advocacy, engage in collective bargaining, and offer vocational training programs. This can improve market power and economic security for informal traders, who play a pivotal role in the SHC value chain.

1. INTRODUCTION

1.1. MOTIVATION AND BACKGROUND

Paving the way towards a sustainable and circular economy is at the centre of political action and public attention around the globe. While moving towards a circular economy is important across industries, some sectors have the potential to play a particularly pivotal role in reaching this goal. Among these sectors is the textile and clothing industry, with textile production being responsible for an estimated 20% of global water pollution and 10% of global carbon emissions (European Parliament, 2024). Consequently, the production of new clothes and their short life cycles impose pressure on natural resources and the environment.

To counteract these impacts, the SHC industry is critical for achieving a sustainable economy. By promoting the reuse of garments, SHC not only extends the lifespan of apparel but also diminishes the demand for new textile production, thereby reducing textile waste. Moreover, reused textiles have a significantly lower environmental footprint than new clothes: the footprint of reused textiles is assumed to be up to 70 times lower than that of new clothing, with reused clothes requiring only 0.01% water and saving about 3 kg of CO_2 per item of new clothing (European Recycling Industries' Confederation, 2023).

While the environmental potential is often the most discussed aspect of the SHC industry in the public discourse, the industry's contributions extend beyond the environmental benefits. The SHC industry not only supports employment through the collection, sorting and retail of used clothes, for example, but also generates significant economic value within the countries involved in its global value chain. Furthermore, it plays a crucial role in providing access to affordable clothing for people, especially in lower-income countries. The SHC industry is therefore in a particularly promising position to contribute to the twin goals of protecting the environment and simultaneously building a strong and sustainable economy.

This socioeconomic dimension of SHC is less explored in the present literature. To address this gap, Oxford Economics has been commissioned by Humana People to People and Sympany+ to analyse the socioeconomic impacts facilitated by the SHC trade between the Global North and the Global South. More specifically, this study analyses the socioeconomic impacts of the SHC industry in the EU and the UK—referred to as EU27+ throughout— and examines the impacts of SHC imports from the EU27+ in three African countries: Ghana, Kenya, and Mozambique.

Our study quantifies the socioeconomic impacts of second-hand trade between the EU27+ and three selected African countries using a multi-method approach. Due to the high informal share of the industry in the Global South, existing estimations and studies have very mixed and sometimes internally inconsistent estimates. One reason is that the definition of market segments, key financial variables, and main stakeholders can vary significantly between countries. Validating the data input by using an expert survey, on-site observations, and discussing inconsistencies in validation workshops have been essential in overcoming these different understandings that have been contributing to the mixed information gathered on the sector in the literature. While the results are still estimations that depend on several assumptions elaborated on in detail in the appendix, the results are internally consistent, comparable between the three countries, and compatible with official trade data—in

contrast to other studies. Moreover, our estimates tend to be on the conservative side of the spectrum of findings from the literature. As a result, we believe that our results currently provide the most consistent estimations of second-hand trade's socioeconomic impact in the EU27+ as well as the corresponding imports into the three selected African countries.

This report is structured as follows: Chapter 1 gives an overview of the methodology to assess the socioeconomic impact of the SHC trade between the EU27+ and Ghana, Kenya, and Mozambique. Chapter 2 provides a stylised overview of the SHC value chain and describes the different steps along the value chain in detail. Chapter 3 addresses the extent of SHC trade between the selected African countries and the EU27+ based on trade statistics. Chapter 4 comprises the socioeconomic impact analyses for the EU27+ and the three relevant African countries, Ghana, Kenya, and Mozambique, respectively. In Chapter 5, the relevant regulatory framework—both in the Global North and the Global South—is presented. In addition, we discuss how the SHC industry contributes to these policies. In the SWOT analysis in Chapter 6, we identify strengths, weaknesses, opportunities, and threats to the SHC industry in the Global North and the Global South. Based on the previous chapters, Chapter 7 concludes by suggesting policy recommendations for different stakeholders.

1.2. METHODOLOGICAL OVERVIEW

In this chapter, we outline our methodology for assessing the socioeconomic impact of the SHC trade in the EU27+ as well as the imports from the EU27+ to Ghana, Kenya, and Mozambique. Our approach was multi-dimensional, incorporating:

- a literature review;
- exploratory expert interviews;
- a quantitative survey of key stakeholders along the second-hand industry's value chain;
- data validation workshops;
- a trade data analysis for sizing the trade between the EU27+ and our three selected African countries;
- economic impact analyses;
- expert interviews with policymakers and stakeholders in Ghana, Kenya, and Mozambique; and
- qualitative fieldwork in these countries.

This comprehensive approach ensured we thoroughly understood the SHC value chain, the socioeconomic impact of SHC in the EU27+ and the three African countries, and the relevant policies affecting this industry. The main steps are outlined below. More information of all the methodological steps implemented can be found in the appendix.

DEFINING THE SHC VALUE CHAIN

We conducted an extensive literature review to develop a stylised representation of the SHC value chain. We used the literature review to identify and understand the operations of the key actors in each stage of the value chain, from collection in the EU27+ to retail in the Global South. Building on the literature review, we conducted 11 explorative interviews with actors at each stage of the SHC value chain. Participants were asked about their organisation's role in the value chain, the nature of their operations relating to SHC, and the current state of the SHC industry. These interviews informed our understanding of the value chain, contributing to a more accurate representation of the industry's

structure and dynamics, and highlighted current challenges and opportunities for the second-hand industry in the Global North and the Global South.

ANALYSING TRADE DATA TO SIZE THE INDUSTRY

We further analysed the SHC trade between the EU27+ and Ghana, Kenya, and Mozambique, focusing on the values and volumes. This involved collecting and evaluating export and import data from the United Nations UN Comtrade database to analyse the size of the trade flows between the EU27+ and Ghana, Kenya, and Mozambique. Firstly, inter-EU27+ trade was considered to understand the flow of SHC across the EU and the UK, before they are distributed to African and other countries. To contextualise SHC imports in Ghana, Kenya, and Mozambique, the value of SHC in these countries was compared to new clothing imports, before unpacking trade values, volumes, and leading trading partners. To understand how trade in SHC has changed over the last decade, the latest available data was compared with 2013 data.

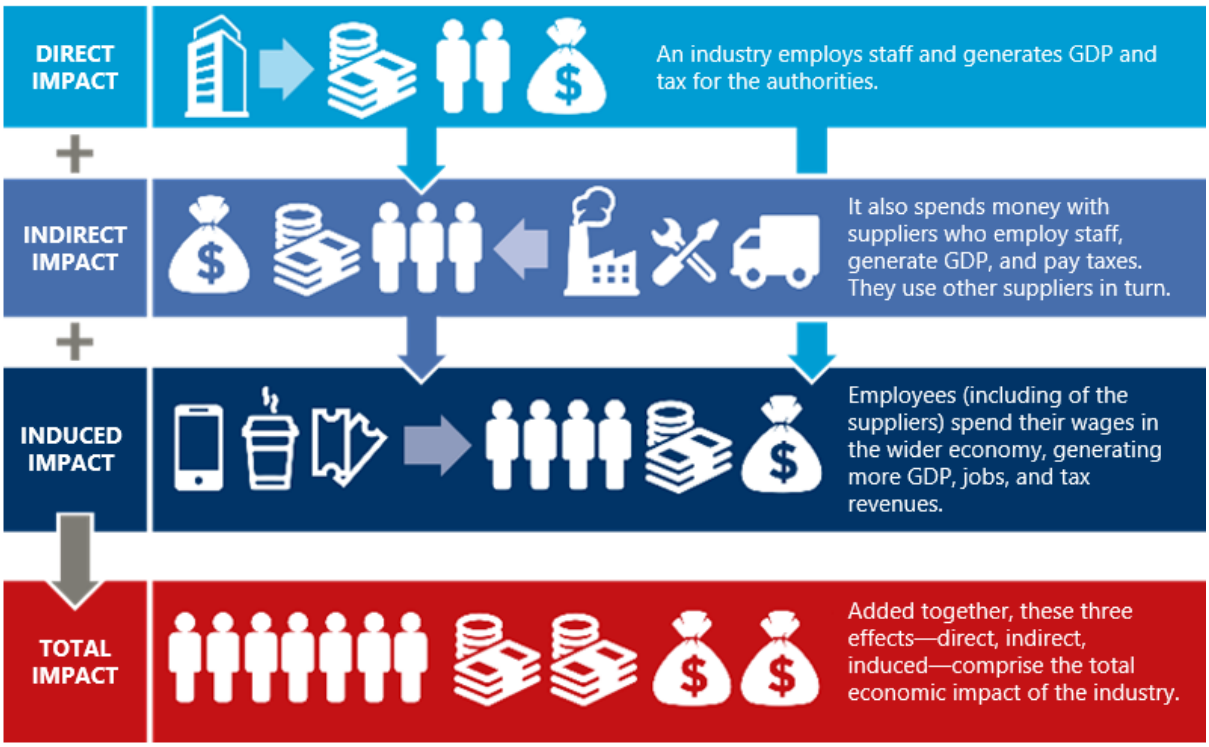
ESTIMATING THE SOCIOECONOMIC IMPACT OF THE INDUSTRY

The assessment of the socioeconomic impact of SHC in the EU27+ and the three selected African countries formed the core of the analysis. We assessed the impact of SHCs in the EU27+ and the impact of SHC trade between the EU27+ and Ghana, Kenya, and Mozambique using a standard analytical framework, known as an economic impact assessment. This involved quantifying the three economic impact channels, namely the direct, indirect (supply chain), and induced (wage-financed consumption expenditure) channels (see Figure 1):

- The **direct impact** relates to the operations of all organisations and businesses in the SHC industry, namely the collection, sorting, and retail of SHC in the EU27+, as well as the wholesale, formal retail, and informal retail of SHC in Ghana, Kenya, and Mozambique connected to the direct imports of SHC from the EU27+.
- The **indirect impact** is the economic activity and employment sustained in the industry's supply chain via the spending of SHC organisations and companies on goods and services in the EU27+, Ghana, Kenya, and Mozambique.
- The **induced impact** comprises the wider economic benefits that arise from the payment of wages by the industry and the businesses in its supply chain. Employees who receive wages spend their earnings as consumers in the economy of their country, stimulating further economic activity and jobs.

The three channels of impact combined make up the second-hand industry's total core economic impact. We measured these impacts using three metrics: GVA contribution to GDP, employment, and tax revenue. Due to very different tax systems applied to commercial and not-for-profit organisations within different EU27+countries, we only estimated the tax revenue stimulated in the three African countries of interest.

FIGURE 1: CHANNELS OF ECONOMIC IMPACT



To model the economic activities along the SHC industry's value chain, we shared a survey with companies and associations along the value chain, including questions on the amount of clothing collected, sorted, and sold; financial and employment information; procurement expenditure; and working conditions. We used these data to model typical actors in each stage of the value chain, utilising the data obtained in the survey as a blueprint but also double-checking the results with existing literature to account for potential survey biases.

To maximise confidence in our data inputs for the Global South and ensure comparability across countries, we conducted additional data validation workshops in Ghana, Kenya, and Mozambique, engaging local experts and stakeholders to review, discuss, and provide feedback on our estimates. The aim was to ensure the data was realistic, consistent, and comparable, which gave us the highest degree of confidence in modelling the socioeconomic impact of the SHC industry in these highly informal and fragmented markets.

The data collected through the surveys informed our economic impact analysis through estimates of GVA, employment, and procurement expenditure per kg of SHC handled at each stage of the value chain. We then used the information on the volume of direct SHC exports from the EU27+ to the African continent (provided by the trade data analysis) to scale up these estimates to the SHC industry in the EU27+. By using information on the sorting and export of collected used clothing items in EU27+ for reuse in different markets, we estimated how much clothing was collected, sorted, and sold in the EU27+ to facilitate the volume of all clothing exports. Therefore, we could estimate the socioeconomic impacts of the entire formal SHC industry in the EU27+.

Furthermore, we examined the socioeconomic impacts of SHC imported directly from the EU27+ in Ghana, Kenya, and Mozambique to show how the EU27+ second-hand trade affected the local economy. Notably, this created a **lower-bound estimate** of the socioeconomic impacts of SHC trade between the EU27+ and the respective African countries, as some of the clothes collected in the EU27+ were first exported to other countries for further processing and then exported to Ghana, Kenya, or Mozambique. However, since the available data did not allow us to track such "indirect" exports from the EU27+ to the three African countries, we restricted our analysis to the direct trade of SHC between the EU27+ and Ghana, Kenya, and Mozambique.

As imports are typically recorded more accurately than exports, we based our analysis of the respective impacts in Ghana, Kenya, and Mozambique on the import data for these countries. One exception is Mozambique. Here, the quantity of clothes imported by the companies taking part in our survey and fieldwork already exceeded the quantity of imports reported in Mozambique. Since import taxes have been paid on these imports, we believe the source is credible. Consequently, we estimated the impacts in Mozambique based on SHC exports to Mozambique reported by EU27+ countries as these seem to align closer with reality.

In the Global South, the informal sector also plays a critical role. Yet, official statistics used for the modelling only capture the formal part of the economy. Thus, the main results refer to the socioeconomic impact of the EU27+ imports to Ghana, Kenya, and Mozambique in the formal economy only. To account for the large share of informal employment in a consistent manner, we used data of the International Labor Organization (ILO) on formal and informal employment in the broader wholesale and retail industry (ILO, 2024a) to estimate the informal employment supported by SHC imports from the EU. With the SHC industry being described as highly informal during our interviews, and likely being informal to a higher degree than the overall wholesale and retail space, we predict the resulting estimates to be conservative.

To summarise, there are a few things to note when interpreting the results:

- The estimates for the EU27+ encompass the socioeconomic impact of the whole second-hand industry. Informal consumer-to-consumer transactions are not included, because they do not constitute a large share of the overall industry yet—as argued by the experts interviewed. Similarly, (consumer-to-consumer) sales through online platforms such as "Vinted" or "eBay" were not considered in this study.
- The estimates in Ghana, Kenya, or Mozambique only capture the impact of direct imports from the EU27+ to these countries. Imports channelled via other routes such as the Middle East are not captured in the analysis. Moreover, the modelled impacts refer to the formal economy only. We provide conservative estimates for the informal employment effects in these countries as well—albeit these are less reliable than the formal estimates due to data availability and a consistent mapping of the informal sector.

ASSESSING THE WIDER SOCIOECONOMIC CONTRIBUTION OF SHC INDUSTRY

By employing a comprehensive methodology that combines data analysis, fieldwork, and stakeholder engagement, we aim to provide a detailed understanding of the SHC trade's socioeconomic impacts in the EU27+ and Ghana, Kenya, and Mozambique. This multifaceted approach ensures a holistic view of the industry.

In addition to the quantitative surveys, we carried out on-site qualitative interviews and observations in the three African countries. Through analysing the responses, we assess the wider socioeconomic implications of SHC from the perspective of local retailers, market traders, and customers in these countries. This includes understanding motivations for buying and the local impacts of the trade.

DISCUSSING THE CONTRIBUTION OF SHC TO POLICY GOALS

We also assess the contribution of SHC trade between the EU and Africa to relevant policy goals and link the industry to relevant SDGs. After conducting a literature review to research relevant policies in the EU and Africa and the explorative interviews, we conducted interviews with stakeholders in Ghana, Kenya, and Mozambique to better understand relevant policies and the local socioeconomic implications of the SHC trade, facilitating a nuanced analysis of its benefits, challenges, and implications for sustainable development and economic policy.

2. THE SHC VALUE CHAIN

2.1. OVERVIEW OF THE TYPICAL SHC VALUE CHAIN

The SHC industry's value chain involves several steps (see Figure 2). In contrast to common belief, every step involves financial transactions such as paying workers, buying, and selling clothes, and covering shipment costs. These transactions drive the economic engine of the second-hand industry, facilitating the movement of goods from collection points to end consumers.

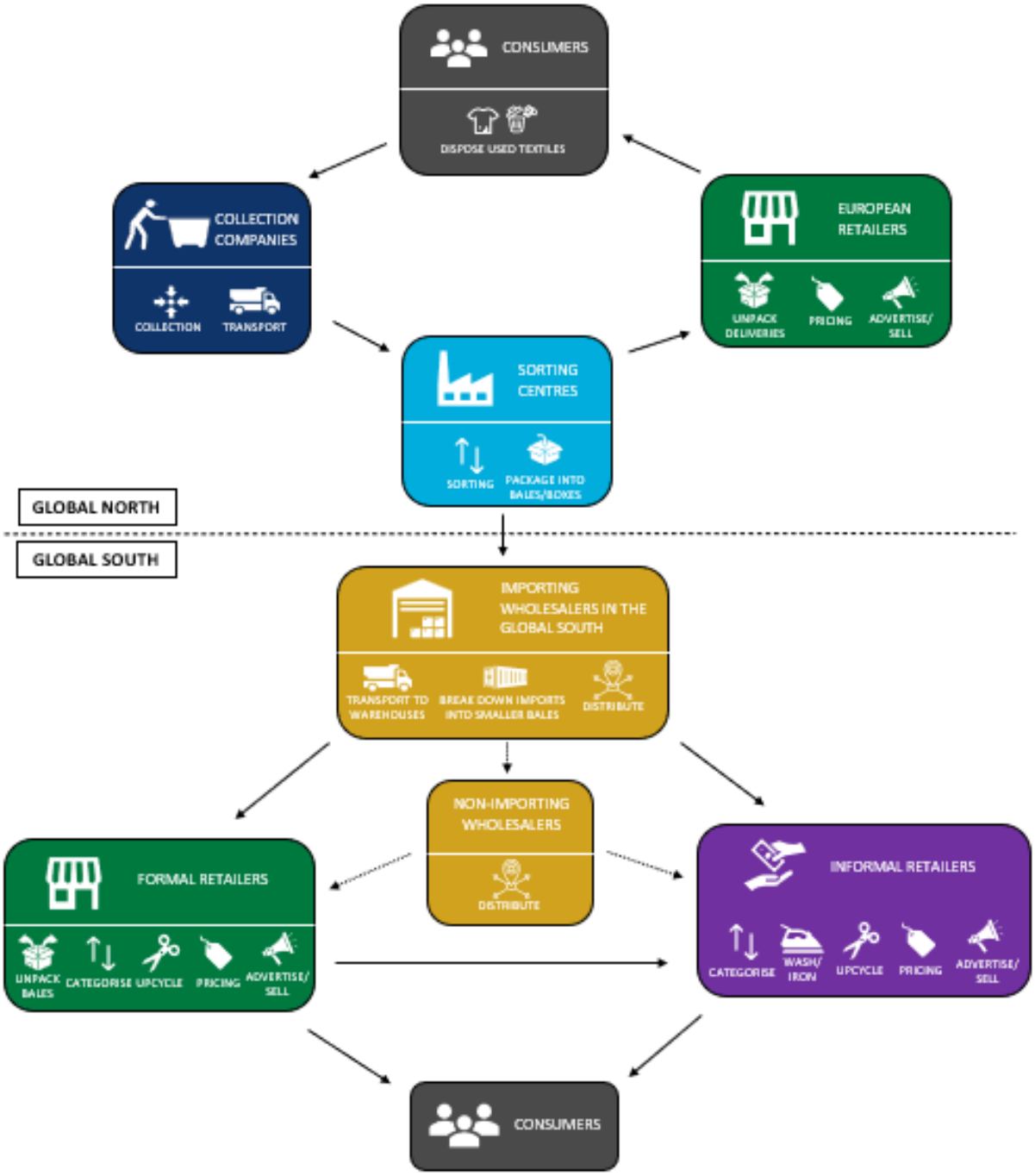
The following information and description of a stylised SHC value chain is based on the exploratory interviews, the quantitative survey with selected industry players, the literature review, and the on-site observations made in Ghana, Kenya, and Mozambique. Because the reported financial data in these countries exhibits considerable variance and is, at times, contradictory, workshops with local stakeholders and industry experts were conducted to maximise confidence in the data that was eventually used for modelling the socioeconomic impact.

In the **collection stage** in the Global North, clothes are disposed of by individuals to various collection points such as bring banks, charity shops, and containers, which are typically organised and managed by SHC companies, including both commercial and not-for-profit organisations. The collection of these clothes serves as the lifeblood of the industry, providing the feedstock for the subsequent stages of the value chain. The companies collecting used clothing typically pay municipalities a certain fee. This payment is a result of a public tender for a collection service, recognising the value of the collected post-consumer textiles. The fee compensates municipalities for providing the space necessary for setting up collection banks and offers municipalities an alternative revenue stream beyond conventional tax income.

In the **sorting stage**, discarded clothes undergo a meticulous sorting process. Accordingly, clothes are sorted based on their potential for re-use and recycling, and clothes fit for repurposing are further categorised into three main groups: clothes suitable for retail in Europe, clothes destined for retail in other destinations including African countries, and non-reusable textiles earmarked for recycling. Textiles that are neither re-usable, recyclable, nor otherwise recoverable are instead sorted for disposal. This stage ensures the quality and suitability of the clothes for their intended markets.

After sorting, the SHC in the stylised value chain are either shipped to the Global South or are sold in the Global North. The latter stage is called **retail in the EU27+**. SHSs are sold in various places across the EU27+, catering to different preferences and shopping experiences. Both commercial and not-for-profit organisations sell second-hand items in retail shops—often at budget friendly prices—with not-for-profits raising funds for social causes (e.g., development, health, and education projects). Typically demanding higher prices, vintage stores specialise in selling carefully selected collections of vintage clothing and accessories. They often cater to specific periods or styles and may offer higher-end, collectable pieces.

FIGURE 2: STYLISED VALUE CHAIN IN THE SHC INDUSTRY



Source: Oxford Economics, with icons from The Noun Project (Lola, DonBLC, Dwi Budiyanto, Wagiman, Soremba, Ahmad Ishaq, icon 5, Niklas Rosema)

In the Global South, the sorted SHC packaged in bales are usually imported by a wholesaler to meet the domestic demand for SHC from the Global North. In some countries, the **wholesale** stage further includes a categorisation process, with wholesalers sorting the imported clothes into different product categories. However, this does not replace the previous sorting process, as used clothes must already be sorted according to country-specific criteria before being imported into the Global South to meet

market demands and country-specific import regulations.[2] After importing the clothes from the EU27+ and, in some cases, sorting the clothes to a finer degree, wholesalers and/or sorting facilities sell the clothes to formal retail shops, informal market traders, and other wholesalers, sometimes even exporting clothes to other, often landlocked countries. Second to importing the clothes, wholesalers and sorting facilities therefore play a crucial role in distributing SHC across various regions in the Global South.

Finally, retailers and market traders sell SHC to consumers in formal shops or at informal markets. This sale to the end-user of used clothes is represented by the **formal** and **informal retail stages**. While informal market traders tend to sell clothes mostly to end-users, formal retailers also sell clothes to informal traders according to the on-site observations.[3] Many retailers, particularly informal ones, specialise in the sale of a certain type of clothing, such as women's tops, jeans, or suits. Furthermore, some retailers (both formal and informal) specialise in selling clothing sourced from specific countries, as consumers often prefer to purchase clothes from certain countries due to the perceived clothing quality. By catering to different market segments in terms of quality and fashion, as well as sales location, formal and informal retailers in the studied countries guarantee that a demographic as wide as possible can buy SHC, including those who may not be able to afford new clothes. For example, while boutiques may only sell the most fashionable clothes in large cities, some informal retailers focus on the sale of more affordable types of clothing in rural locations that would otherwise not receive any affordable clothing.

In the following chapters, we will analyse each step of the value chain in more detail.

2.2. COLLECTION OF TEXTILES

OVERVIEW AND STAKEHOLDERS INVOLVED

The collection of used clothing is essential for the value chain since the goods collected are the feedstock for the whole industry. Individuals in EU27+ have numerous options for the disposal of used clothing items. These can include bring banks, collection bins, charity shops, and designated drop-off locations. Kerbside collection is an exemption in European countries (JRC, 2021).

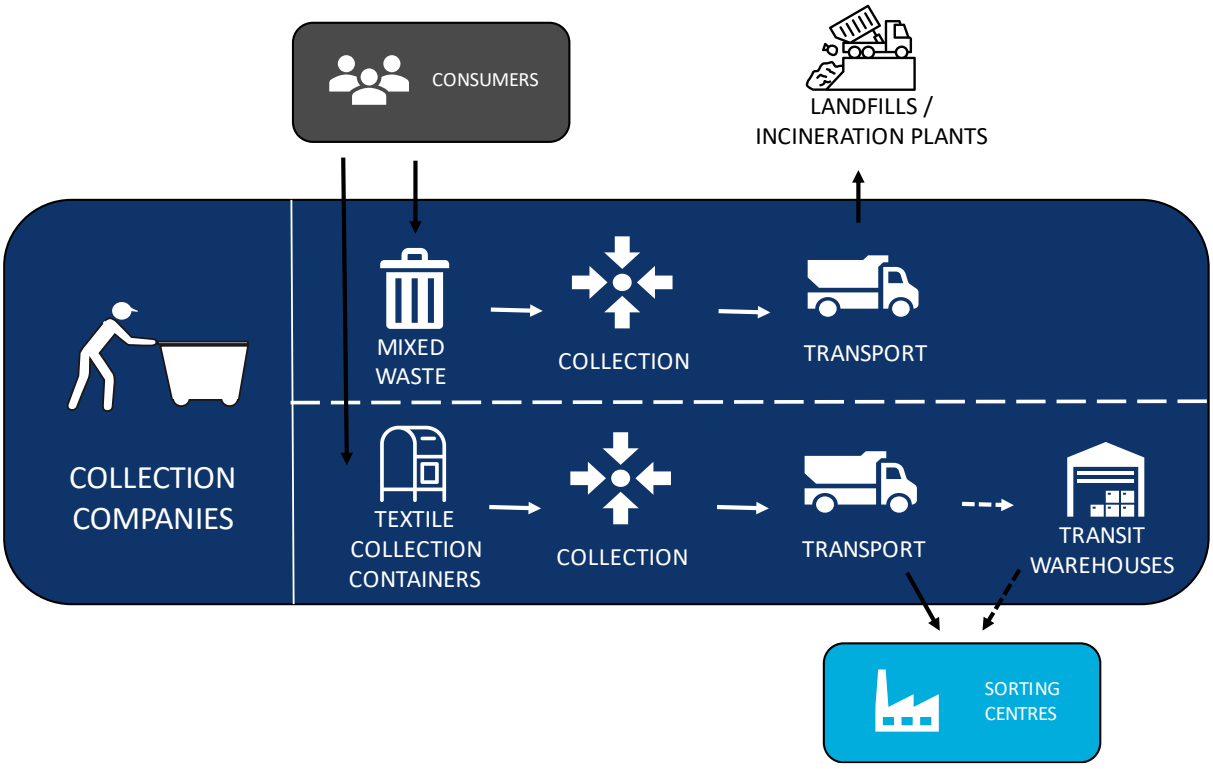
Municipal waste companies, not-for-profit, and commercial collectors are the main stakeholders involved in the collection of textiles in the Global North. While municipal waste companies in some European countries collect textile waste as part of their overall waste collection efforts (see more information below), commercial and not-for-profit collectors specialise in the collection of reusable textiles, including both re-wearable and recyclable items. Municipal waste companies play an increasingly important role in used textile collection in many countries—especially if they are required to collect textile waste by legal obligation (JRC, 2021).

[2] While few countries have banned the import of second-hand clothing entirely, others have strict regulations on the type of clothing that can be imported and require that clothes have been extensively sorted before being imported. Therefore, instead of replacing the first-round sorting in the Global North, wholesalers rely on the lower labour costs in the Global South to categorise the imported clothing mix into detailed product categories, such as men's jeans or women's blouses.

[3] In Ghana, for example, experts report that retail shops follow a "mixed market approach" selling both to end-customers as well as informal traders—even by the bale.

The operations of not-for-profit and commercial organisations do not differ significantly—at least in terms of collection methods—as both have to work within the same conditions. The main difference is mostly that not-for-profit collectors channel their profits towards the funding of social causes.

FIGURE 3: STYLISED OVERVIEW OF THE STEP "COLLECTION OF TEXTILES" IN THE VALUE CHAIN



Source: Oxford Economics, with icons from The Noun Project (Slamlabs, DonBLC, Dwi Budiyanto, Cecile Lanza Parker)

VALUE-ADDING ACTIVITIES

Individuals often perceive their discarded textiles as still holding some utility due to their inherent physical qualities, prompting them to "donate" their worn clothes. However, the act of discarding means that these garments lack exchange value for their owners. Within the global production networks of SHC, the transformation of unwanted garments into exchange value is central. This process ultimately converts disposed clothing into commodities with market worth (Brooks, 2013).

Collection systems are dominated by bring banks. Although data availability is limited, around 80-90% of the clothes are collected via bring banks (JRC, 2021). Over-the-counter collection in retailers, second-hand shops, and socioeconomic reuse organisations is also prevalent, albeit on a smaller scale (JRC, 2021). If the EU Waste Directive (see also Chapter 5.1) is implemented, the collection by municipalities and waste collectors will presumably gain importance, an interviewee argued.

According to several interviewees, companies typically collect used clothes from their own containers or bins. Sometimes, these containers can be placed for free. In many cases, however, companies pay a fee to municipalities—either per site or kg of clothes collected. Some clothes are handed in over the counter in (charitable) shops. The emptying and transport of the collected clothes to a warehouse is either done by the collection company itself or a contractor—another collector or a transport

company. If containers are owned by the municipality, collection companies can also serve as contractors handling the clothes on behalf of the municipality. Once collected, SHC are either transported directly to sorting centres—usually if the sorting centre is in the same country—or to transit warehouses from which they are transported to the specialised sorting centres.

Public awareness and information campaigns are often conducted to promote the benefits of handing over used clothes to the industry, inform on the usage of the collected clothes, and encourage participation in collection efforts. Moreover, the better educated the population is about the goal and the desired content for collection, the higher the quality of the collected textiles, and the higher the productivity of sorting centres, an interviewee explains.

In some countries, new collection streams for textiles have developed because of new regulation.[4] In Denmark, for example, municipalities must collect textile waste directly from households (see Box 1). Since the textiles collected have a different quality, collectors pre-sort this waste into reusable and recyclable content and dispose of the remaining waste. As this new collection stream will contain larger shares of textile waste with zero reuse value, collectors will probably need to get economically compensated for this service (JRC, 2021).

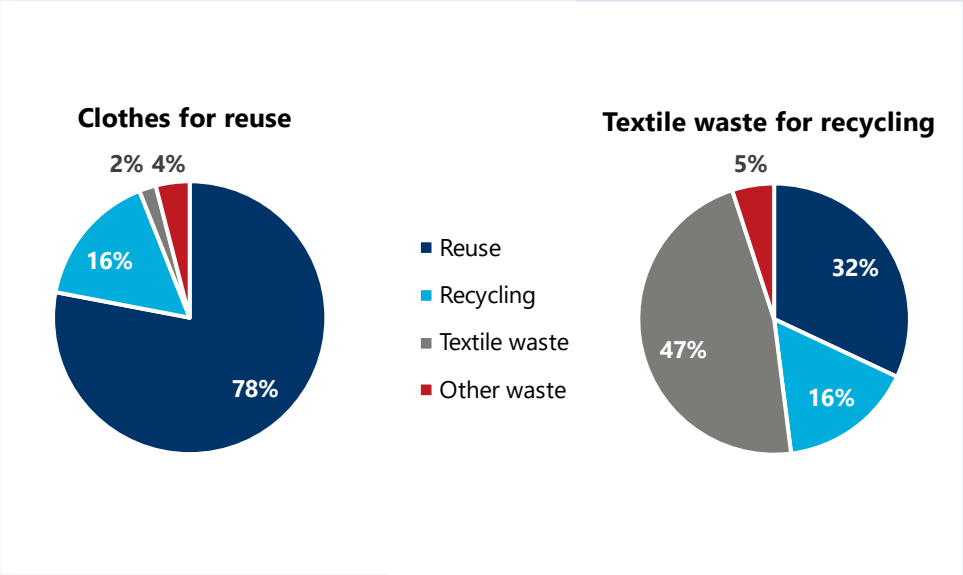
BOX 1: NEW TWO-STREAM TEXTILE COLLECTION IN DENMARK

Since July 2023, textile waste has been one of the waste categories that municipalities need to collect in households. To comply with these regulations, Denmark uses a two-stream collection system, collecting used textiles through dedicated textile collection and through the collection of residual household waste. The goal is to comprehensively collect reusable and recyclable textiles. To do so, the textile waste is pre-sorted by dedicated sorting companies. The results of a first analysis show the quality of the collection depends on households receiving accurate education and information on what needs to be collected.

In contrast to the dedicated collection of clothes for reuse, textile waste meant for recycling contains much fewer quality items. The first months of implementation have shown that while approximately 78% of the clothes collected via containers, bring banks etc. can be reused and 16% recycled, the textile waste collected for recycling via the household collection—until now—only contains 32% of clothes for reuse, 16% textiles for recycling, and 47% of textile waste. Due to the systematic collection and education of Danish people for decades, the conventional collection of clothes has a much higher share of non-waste items, i.e., 94% in contrast to 48%. Yet, these results are based on just half a year after introducing a new waste management system. It is far too early to pass a final judgment on the new system.

[4] The revised Waste Framework Directive requires Member States to establish systems for the separate collection of textile waste by 1st January 2025 (JRC, 2021).

FIGURE 4: INDICATIVE SORTING RESULTS FOR TWO-STREAM COLLECTION OF UFF-HUMANA IN DENMARK, 2022/23



Source: Oxford Economics based on UFF Humana

Comparing these numbers with an analysis carried out by Rijkswaterstaat in the Netherlands shows that the reusable share of textiles disposed of in residual household waste is slightly smaller (28%) than in the Danish example, but the recyclable share is considerably higher (30% in contrast to 16%). The share of non-reusable and non-recyclable waste lies between 42% in the Dutch data and 47% in the Danish data (JRC, 2021, p. 51).

SUPPLY, DEMAND, AND PRICES PAID

Most of the clothing and household textiles are disposed of by citizens or end-users of commercial or industrial institutions within the EU27+. They discard clothing and linens, footwear, handbags, furs, and duvets, as well as other household textiles like tablecloths, curtains, and hand towels after they are not used anymore. Depending on the collection system in place, the discarded clothing items are either labelled as waste or as reusable textiles (JRC, 2021).

The supply is driven by the consumption of new textiles in the Global North, with textile consumption in the EU27 amounting to 15 kg per person in 2020 (European Environment Agency, 2022). An analysis of the clothing and home textiles consumption in the EU in 2018 by JRC (2021, p. 29) showed that 81% of total consumption comprised clothing and accessories and 19% of home textiles. Moreover, it is estimated that Europeans buy approximately 6 kg of suits, jackets, coats, trousers, shirts and blouses each year. In contrast to underwear, tights, stockings, and socks, these products have a high potential to be reused in the second-hand industry (JRC, 2021, p. 31). Another study reveals that the number of times that a new garment is worn has decreased by 36% worldwide between 2002 and 2017, contributing to the increased consumption of clothing and the constant supply of clothing that is no longer worn by the initial buyer (Ellen MacArthur Foundation, 2017).

Interviewees commonly agreed that that the collection volume and quality are highest in wealthier regions. Therefore, collection rates in Western European countries are much higher than in Eastern European countries. This also holds for different areas within a country. Where people can afford to buy new clothes and are fashionable, the supply of collected clothes is highest, the interviewees explained.

Another factor influencing the volume of clothes collected is the collection rate, which varied widely in 2018—between 4.5% in Latvia and 45% in the Netherlands (JRC, 2021, p. 47). A tentative estimate by JRC (2021, p. 49) indicated that the separate collection of used textiles across the EU27+ in 2020 roughly corresponded to around 1.7 to 2.1 million tonnes. The bulk of the remaining 3.3 to 3.7 million tonnes of consumed, newly produced textiles are believed to be disposed of in household waste, while a relatively smaller quantity is accumulated and stockpiled in households (JRC, 2021, p. 50). Notable increases in collection volumes are expected leading up to 2025, driven by the initiation of individual textile waste collection systems to meet the requirements outlined in the EU Waste Framework Directive (see more information in Chapter 5.1) (JRC, 2021).

After the collection, the textiles are bought by sorting centres in the Global North. Moreover, sorting centres in the Middle East have developed in the past years. According to several interviews, these are often based in the UAE because of the available low-cost (often migrant) labour force, as well as the central location for shipping the sorted clothes to both the Global North and Global South. For SHC exports to Kenya, Oman was also frequently named as an alternative location for sorting centres. Post-consumer clothes and textiles collected in the EU27+ sold, on average, between €0.50 and €0.65 ($0.54–$0.70) per kg in 2023—as explained by most interviewed stakeholders. Similarly, average purchase prices reported by sorting centres during our quantitative survey were €0.53 ($0.57) per kg, on average. However, it is worth noting that prices can fluctuate considerably between years and even months, as mentioned by several interviewees.

2.3. SORTING AND CLASSIFICATION OF TEXTILES

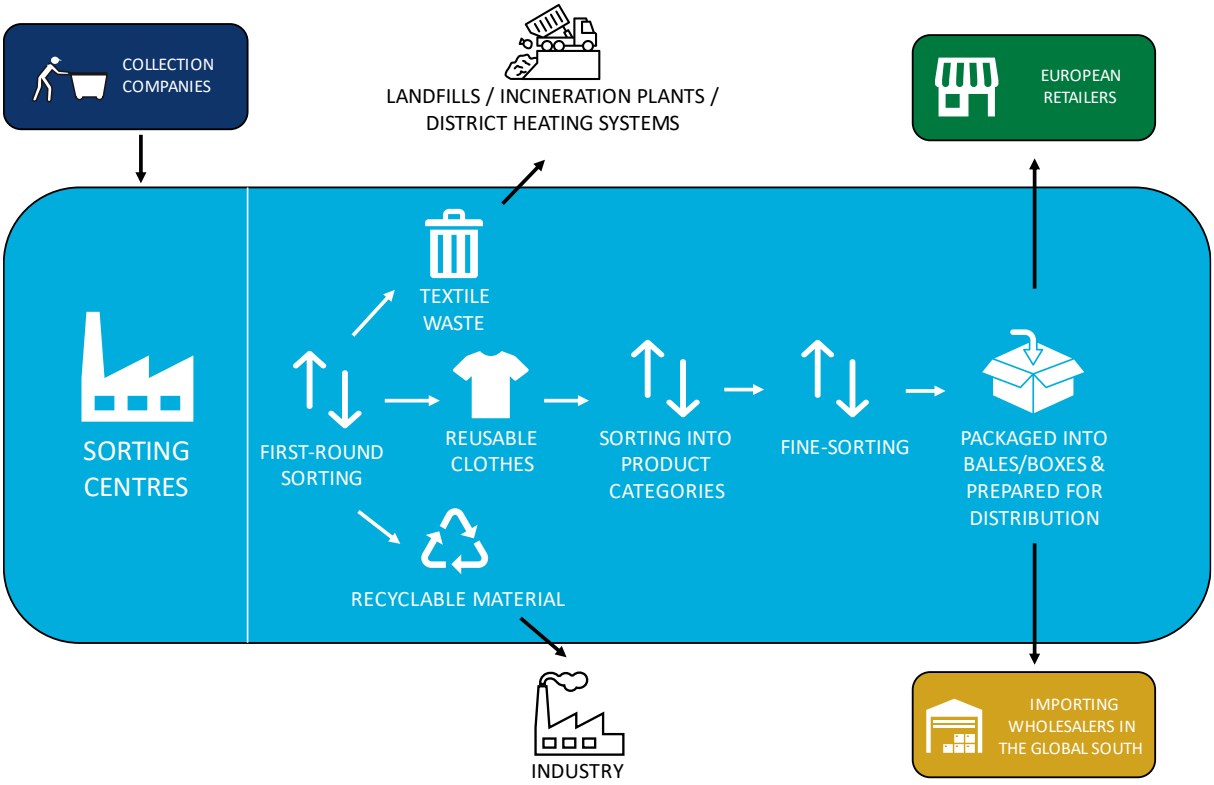
OVERVIEW AND STAKEHOLDERS INVOLVED

The sorting process within the SHC industry holds a pivotal role in transforming what might be perceived as "waste" into a valuable, and sellable, product. Unlike conventional production processes where raw materials are transformed into finished goods, collected clothing represents a pre-existing pool of diverse items, each with its own characteristics, quality, and potential for reuse. Sorting serves as the bridge between the collection of used clothing and its redistribution for resale or recycling.

By carefully categorising and evaluating each item, sorting effectively identifies the inherent value in these goods, maximising their utility and extending their lifespan. Effective sorting contributes to the sustainability of the used textiles management by minimising waste and promoting resource conservation. Moreover, by subjecting used clothing to rigorous sorting criteria, the industry maintains a level of quality control that is essential for building consumer trust and satisfaction. This includes inspecting for defects, ensuring cleanliness, and adhering to safety standards, ultimately enhancing the perceived value of the products. Accurate and profitable sorting therefore requires skilled and trained staff who adjust their sorting decisions with respect to different markets as accurately as possible, as explained by several sorting centres.

Sorting centres are either run by not-for-profit organisations or private companies. According to numerous interviewees, the main difference is that not-for-profit organisations are mostly integrated into operations covering the whole value chain while private sorting centres may specialise in sorting only. Since sorting is still a very manual and labour-intensive process—especially for determining the end market of reusable clothing—labour costs often determine the location of sorting centres. While sorting centres are commonly located across the EU27+, many of them are in countries with relatively lower labour costs, such as East Europe or even the Middle East.

FIGURE 5: STYLISED OVERVIEW OF THE STEP "SORTING AND CLASSIFICATION OF TEXTILES" IN THE VALUE CHAIN



Source: Oxford Economics, with icons from The Noun Project (Slamlabs, DonBLC, Wagiman)

VALUE-ADDING ACTIVITIES

Second-hand fashion operates within a dynamic realm, navigating through various trends and seasons, all while adapting to the ever-changing demands of its clientele. Unlike the textile industry, which produces based on trend-based demand, second-hand fashion must contend with the inventory it accumulates over time. Creativity becomes key in finding suitable markets for these items. Therefore, the clothes bought during the collection stage include all sorts of categories, seasons, styles, fashion, and quality that need to be carefully sorted.

FIGURE 6: HUMANA SORTING CENTRE IN LITHUANIA

Source: Humana Lithuania

Depending on the sorting centre and the destination it sorts for, between 90 and 500 different categories exist to account for different quality, value, appearance, purpose, seasonality, branding, fashion, novelty, particular customer needs, etc. In most cases, in the first stage, the collected textiles are sorted into three main categories—reusable clothes that are sold in retail shops, recyclable material that can be sold for industrial purposes (e.g., wiper production) and waste that can be used for incineration in, for instance, cement factories and district heating systems. The order of these categories corresponds to the waste hierarchy[5] and highlights their priority for profitable operations since reusable clothes can be sold at a higher price than recycling textiles. After that, reusable items are sorted into product categories such as shoes, sweaters, trousers, etc., quality grades, and seasons.

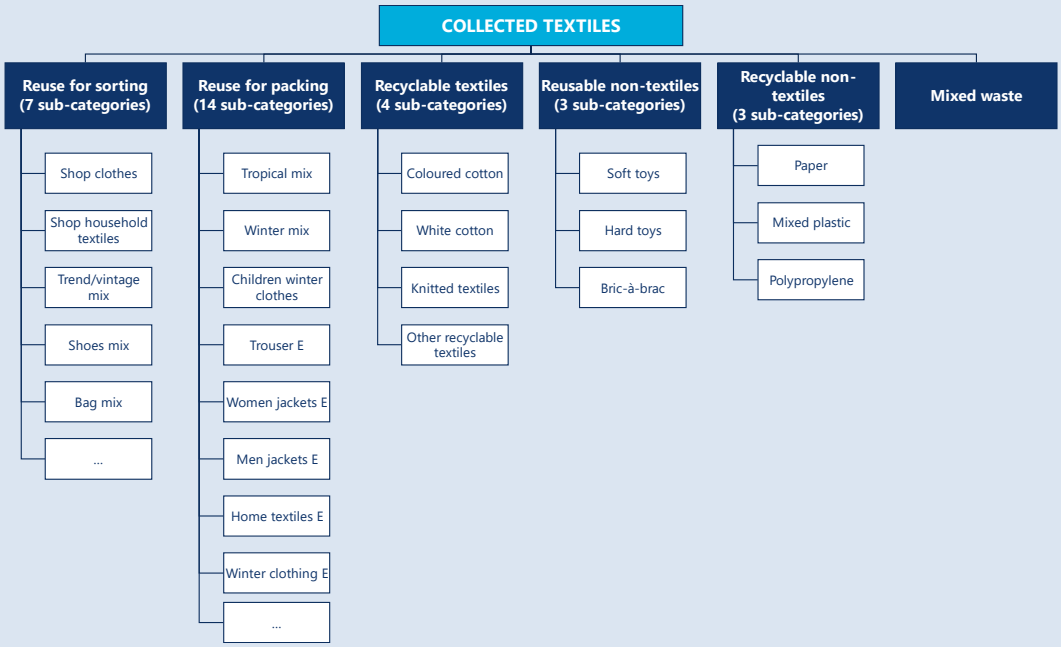
In the last step, sorters "fine-tune" the pieces for the different markets they are selling to. Interviewees affiliated with sorting centres explained that they have detailed conversations with their customers to sort their final mix. Conversations with customers in selected African countries, for example, result in a dedicated "tropical mix" that includes clothes suitable for warmer, tropical regions. Sorting centres build on the expertise gained in their sales markets over the years and develop highly sophisticated sorting manuals per market and season—especially if they have their own retail shops and can hence better assess the demand. The fine sorting and granularity of sorting categories vary significantly because they need to account for a variety of factors that influence demand in the destination markets. For example, one interviewee explained that some very short women's shirts would not be bought by customers in Kenya due to local consumer preferences. Moreover, the granularity of the sorting further depends on the destination country's import restrictions as well as the availability of a second-round sorting (see Chapter 2.5).

[5] The waste hierarchy is the foundation of EU waste management, established in the Waste Framework Directive. It establishes a five-step order of preference for waste management, namely (1) waste prevention, (2) preparing for re-use, (3) recycling, (4) recovery, (5) disposal, with (1) being the most preferred and (5) the least preferred waste management option.

BOX 2: CATEGORIES IN HUMANA PEOPLE TO PEOPLE SORTING CENTRES

A study by Nørup et al. (2019) looking at a sorting centre operated by Humana People to People in Vilnius (Lithuania) grouped the sorting categories as shown in Figure 7. It illustrates how granular and market-segment-specific the sorting can be. Between 36,600 and 37,100 tonnes of textiles containing a wide range of items, including clothing, household textiles, shoes, bags, accessories, and soft toys, were processed annually by the centre during the study's reference years of 2015–2017. On average, this corresponds to a daily intake of 130 tonnes, although the facility can sort around 200 tonnes per day. Discussions with stakeholders revealed that the sorting process today is very similar to the referenced period of 2015–2017.

FIGURE 7: OVERVIEW OF THE DIFFERENT MAIN AND SUB-CATEGORIES



Source: Oxford Economics based on Nørup et al. (2019)

Sorting is one of the central value-adding activities in the second-hand industry. It allows for the identification of items that are suitable for resale in various markets. Moreover, different markets have varying preferences and requirements regarding clothing styles, sizes, and seasonal trends. Sorting allows for the customisation of inventory to cater to the specific needs of different consumer demographics. Thus, by selecting and sorting items correctly, sorting determines whether collected textiles are resalable or waste, the marketability of second-hand goods, and the overall profitability of the second-hand enterprise.

Sorting is a highly technical activity that requires expertise, experience, and continuous learning. An interviewee called the work "mind intensive". Sorting personnel must possess a deep understanding of fashion trends, textile materials, garment construction, and market dynamics to make informed decisions about the disposition of each item. This knowledge is honed through training, experience, and ongoing adaptation to changing market conditions. One interviewee estimates that it takes around six months to become a good sorter.

SUPPLY, DEMAND, AND PRICES PAID

Collectors of used textiles items **supply** sorting facilities with the feedstock for sorting—the so-called original. Sorting facilities do not only sort clothes collected domestically, and hence, sorting and collection volumes can differ within a country. A representative survey in the Netherlands found that 63% of the clothes sorted in the Netherlands had been imported—mainly from Germany, but also from Belgium and France (FFact, 2018). A representative from one Humana sorting facility reports, for example, buying collected clothes from 70 different suppliers in Europe and the US.

The composition of collected textiles significantly influences both the sales market and the business model of sorting centres, as only reusable and recyclable content can be sold profitably. A 2018 survey in the Netherlands showed that 53% of sorted clothes and shoes were reusable, 33% recyclable, and 14% waste[6] (FFact, 2018). Similarly, data from France indicated 58% reusability, 32% recyclability, and 10% waste (ReFashion, 2021). In Lithuania, between 2015 and 2017, 75%–80% of textiles were reported as reusable by a domestic sorting centre, 13%–17% as recyclable, and 5%–6% as waste (Nørup, et al., 2019). This distribution is supported by further interviews and our quantitative survey, averaging 69% reusable, 23% recyclable, and 8% waste across sorting centres in 2023.

The share of reusable textiles further depends on the mode of collection. The overall share of reusable textiles is significantly higher in dedicated collection facilities than those identified for clothes collected via household waste (see also Chapter 2.22.2). In the Netherlands, for example, only about one-fourth of all textiles disposed of in household waste are suitable for reuse (JRC, 2021). Although the differences cannot be directly compared due to country-specific factors, they likely reflect the impact of consumers pre-assessing and sorting their textiles, resulting in higher quality items being directed to dedicated collection facilities while lower-quality textiles end up in residual household waste.

Moreover, the accuracy in handling collected clothes affects the share of reusable textiles. To achieve a high share of reusable content, collectors need to avoid contamination of the collected textile waste by other types of waste and must assure that, for example, water does not infiltrate the collected textile mix during the collection process, as explained by stakeholders.

Summing up, the supply of clothes that are suitable for the second-hand value chain is determined by a combination of various factors: the number of clothes that are disposed of, the share of these clothes that are gathered via collection facilities (see Chapter 2.22.2), and the share of collected clothes that can be reused.

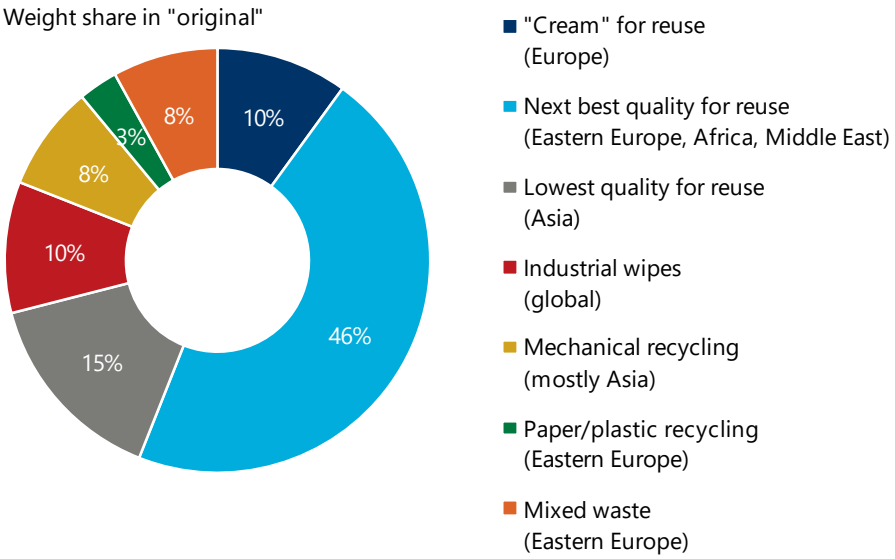
The destination of the sorted textiles is mainly determined by the **demand** for certain goods and the qualities of textiles. Since the profitability of the sorting process lies in identifying the ideal future utilisation and market for each segment of clothing, the sorted clothes are either sold as reusable clothes in different market segments or as recyclable material for industrial purposes while maximising the sellable value of the sorted textiles. While selling textiles as recyclable materials, for example, may not be profitable by itself, our survey responses show that these textiles are sold for between €0.04

[6] The latter category consists of waste, but may also include materials such as paper, plastic, metal, and leather as well as textiles that are, for example, wet and no longer dryable, mouldy, or heavily soiled.

($0.04) and €0.27 ($0.29) per kg, and thus contribute to recovering the costs associated with the sorting process.

In their policy brief on the exports of Nordic-used textiles, Watson & Palm (2016) described the typical textile flow from a truckload of textiles arriving at a sorting facility as "a cascade of quality". According to their research in the Nordics, around 10% of the original remains classified as top-grade textiles—the so-called "cream" in European countries. 46% of the original consists of next-best quality textiles, and includes the tropical mix consisting of clothing better suited for warm climates. These are exported to Africa, the Middle East, and Eastern Europe. 15% of the original is of a lower quality and is mainly exported to Asia. 10% are sold to the global wiper industry, 8% are exported for mechanical recycling in Asia, 3% are used for paper and plastic recycling in Eastern Europe, and 8% are landfilled or incinerated as mixed waste. As Figure 8 shows, and as is supported by other studies, the sorting process is very granular and there are multiple categories in which textiles can be used for other purposes even if they are not being reused in the original sense.

FIGURE 8: TYPICAL COMPOSITION OF EXPORTED NORDIC TEXTILES AFTER SORTING, 2014



Source: Oxford Economics based on Watson & Palm (2016)

The **recyclable textiles** are sold to the industry by material and bale. The raw materials are then repurposed for applications such as interior car linings, paint substrates, insulation, and roofing felt. Currently, the primary focus of global recycling efforts lies in the cutting of cotton-based textiles for wipers/rags, shredding knitwear into non-woven materials, and to a lesser extent, repurposing them into new textile products (Nørup, et al., 2019). Additionally, some smaller share goes into fibre-to-fibre recycling according to our interviews but the economic viability is still to be achieved.

Another-possibility is mechanical recycling. During mechanical recycling, the textiles are torn from big pieces to fibres of different lengths. The shorter ones can be used as raw material for the chemical recycling of cotton, which has developed in the past two years. The longer fibres can be used to spin yarns. According to several interviewees, spinners testing these yarns gave very positive feedback on the quality, but the demand by brands is still very low. Firstly, they may not trust these yarns yet. Secondly, the recycled material is more expensive than a comparable virgin material.

Since recycling is harder with synthetic clothes and those with many layers, recycling is getting more and more difficult. As per the Textile Exchange's Materials Market Report, polyester constituted 54% of global fibre production in 2022 (Textile Exchange, 2024). Moreover, an estimated 7% of collected clothes contain multi-layered items that can be theoretically used for downcycling, wipers, or low-value re-wearable textiles (Circle Economy, EigenDraads & Fashion for Good, 2022). However, there is no business case to date for manually dissembling multi-layered items. This has the potential to change with automated sorting technologies (Circle Economy, EigenDraads & Fashion for Good, 2022).

The non-re-wearable portion of sorted textiles is expected to increase in the coming years due to several factors (Circle Economy, EigenDraads & Fashion for Good, 2022). Consequently, it is crucial for recycling technologies to be prepared to handle these textiles effectively. While mechanical recycling technologies currently meet this demand, certain chemical recycling methods are still in the process of achieving the necessary readiness level to manage the anticipated volumes of low-value, post-consumer textiles (Circle Economy, EigenDraads & Fashion for Good, 2022).

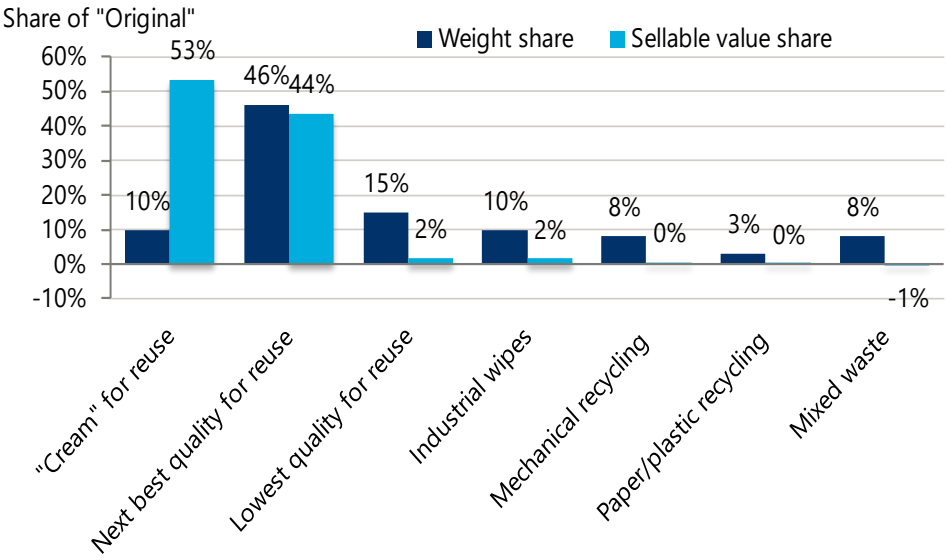
Reusable clothes fit for **retail in the EU27+ markets** are either sold in dedicated second-hand shops or between consumers on flea markets and online platforms. As explained, we will focus on the formal SHC retail trade. In one of our interviews, it was estimated that 20% of the sorted clothes are sold in European retail shops. According to another study, an estimated 30% of SHC is retailed within the region (Brooks, 2013). This is corroborated by our quantitative survey. On average, participating sorting centres reported that 30% of clothes are sorted for retail in Europe—in both Western and Eastern Europe.[7] One reason for this comparatively low share of SHC that are sold on domestic markets compared to the global market is the lower demand (Ellen MacArthur Foundation, 2017). While the demand for SHC in the Global North is expected to increase, it will most likely continue to account for a smaller percentage than the retail of SHC in the Global South.

Reusable clothing for Africa is sold to wholesale importers in African countries. These importers often place orders for SHC, which can be either fixed standard orders—especially when a long-term trading relationship exists—or flexible orders based on demand. The SHC is typically exported in sealed bales weighing 45 kg, 55 kg, or 450 kg, which are loaded into shipping containers. Smaller bales, weighing 45 kg, are considered "ready products" for direct sale in Africa, while larger ones are categorised upon arrival. The level of categorisation varies depending on import regulations. For instance, in Ghana, only finely sorted second-hand textiles are permitted for import.

The **prices paid** by the customers of the sorting centres differ significantly. Therefore, the sorting system places significant emphasis on the proportion of wearable garments, as wearable fractions have the potential to generate more than 90% of a sorting centre's income (JRC, 2021). Premium wearables (i.e., cream) account for over 50% of revenue, whilst wearables of the next best quality account for around 44% of revenue. This is illustrated in Figure 9.

[7] This numbers cannot be directly compared to Watson & Palm (2016) since they do not differentiate the cloths transported to Africa, the Middle East, and Eastern Europe.

FIGURE 9: WEIGHT VS. VALUE SHARE OF EXPORTED NORDIC TEXTILES AFTER SORTING



Source: Oxford Economics based on Watson & Palm (2016)

Cream can be sold for €4.50 ($4.87) per kg (Watson, et al., 2016). Non-cream wearables are reported to cost approximately €0.76–€0.80 ($0.82–$0.87) per kg (JRC, 2021; Circle Economy, EigenDraads & Fashion for Good, 2022; Watson, et al., 2016). The end markets of non-re-wearable usually pays lower prices. Prices reported range between €0.08 ($0.09) per kg for downcycling to applications such as fibres for insulation, filling or non-woven for automotive and other industries, €0.13–€0.45 ($0.14–$0.49) per kg for wipers, and €0.02–€0.14 ($0.02–$0.15) for fibre-to-fibre recycling (Circle Economy, EigenDraads & Fashion for Good, 2022). Landfilling or incinerating the mixed waste costs approximately €0.05 ($0.05) per kg (Watson, et al., 2016).

These selling prices compare to the buying prices of €0.60 ($0.65) to €0.76 ($0.82) per kg for collected clothes purported in the literature (see Chapter 2.2). Moreover, the numbers are roughly consistent with the information obtained from our quantitative survey. Table 4 presents the average sales prices reported by European sorting centres during our survey. Prices for SHC sold for reuse in Europe were reported at €2.42 ($2.62) per kg, on average. As these clothes include both cream and non-cream re-wearables, the average price fits well into the existing literature. Similarly, SHC sold for reuse in Africa and textiles designated for recycling also compare well to the existing literature: With non-cream re-wearables sold for reuse in Africa tend to be, on average, of lower quality than non-cream re-wearables sold in Europe, the average sales price of €0.67 ($0.73) per kg is slightly lower than the average price for non-cream SHC reported in the literature. Surveyed sorting centres reported sales prices for textiles designated for recycling of 0.16 ($0.17) per kg, which is within the range of €0.02 ($0.02) and €0.45 ($0.49) per kg reported in the literature. With a cost of €0.19 ($0.19) per kg, the cost associated with textiles sent for incineration or destruction are moderately higher than in the literature. These sales prices compare to an average purchase price of €0.53 ($0.57) per kg.

TABLE 4: AVERAGE SALES PRICES OF SURVEYED SORTING CENTRES IN THE EU27+, 2023

Intended use of SHC / sorted textiles	Price per kg
SHC sold for reuse in Europe	€2.42 ($2.62)
SHC sold for reuse in Africa	€0.67 ($0.73)
Textiles sold for recycling	€0.16 ($0.17)
Textiles sent for incineration/destruction (cost)	-€0.18 (-$0.19)

Source: Oxford Economics

2.4. RETAIL IN THE EU27+

OVERVIEW AND STAKEHOLDERS INVOLVED

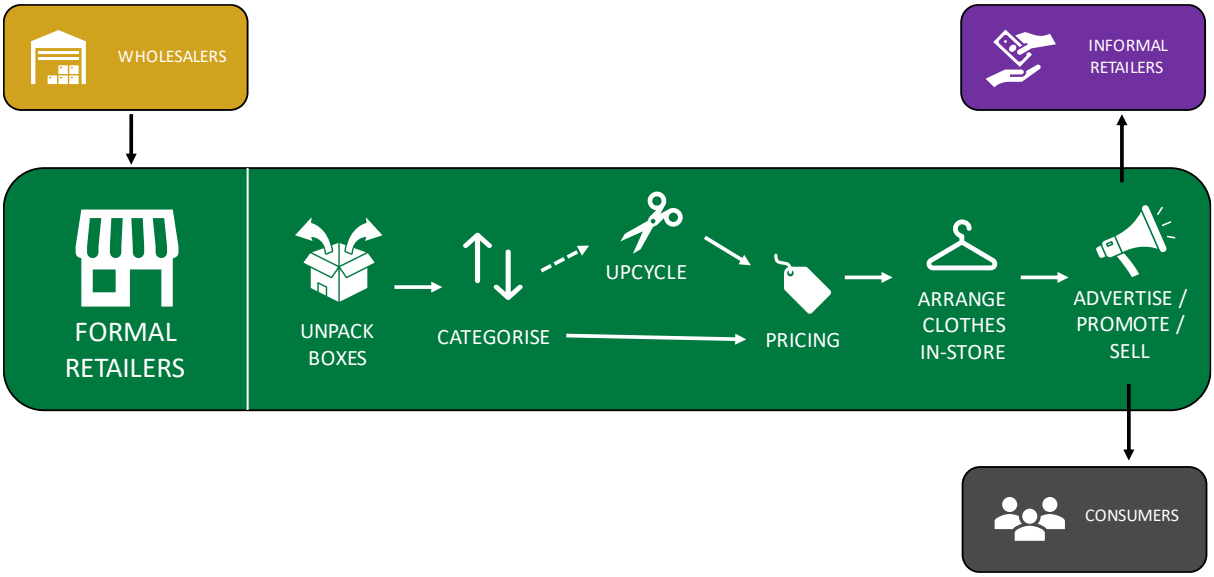
Retailers across the EU27+ act as the central link between sorting centres and consumers in the Global North. These retail operations are widespread, spanning cities in all countries in the EU27+. With second-hand clothes—and vintage SHC in particular—becoming increasingly fashionable and popular, there has been a rise in demand even in high-income European countries—interviewees explained.

Many of the retail stores are directly connected to sorting centres. For example, Humana alone is running 550 shops in Europe which mainly procure from sorting centres connected to the Humana network. This ensures a steady supply chain and the availability of quality garments. The interlinkage of the sorting and retail stages in the value chain further allows for an effective assessment of the market dynamics and demand trends. Besides these integrated stores, there are independent retail stores that obtain their inventory from external sorting centres. European retail stores offer a wide range of clothing suitable for Europe's diverse climates and fashion preferences, including both lightweight summer apparel and heavier winter wear.

Many SHC retail stores in the EU27+ belong to not-for-profit organisations. Through the sale of SHC, these stores contribute to the social impact of the SHC industry, as parts of the profits are used to finance community projects or conduct global aid initiatives. Some not-for-profit retail stores in the Nordic region are run by volunteers, showcasing the respective organisation's commitment to social causes.

Moreover, there is an informal retail market in many European countries as well. Often operating on the many flea markets across the EU27+, some individuals might sell personal or family-owned clothes they do not need anymore. In addition, there is a large online-market place for used clothes sold by consumers to consumers. While these more informal retailers are an active part of the SHC industry, they do not constitute a large share of the overall industry—the experts interviewed argued. We therefore focus on the sale of SHC by formal retailers in the EU27+.

FIGURE 10: STYLISED OVERVIEW OF THE STEP "RETAIL IN THE EU27+" IN THE VALUE CHAIN



Source: Oxford Economics, with icons from The Noun Project (Soremba, Ahmad Ishaq)

VALUE-ADDING ACTIVITIES

Retail stores in the EU27+ are essential in ensuring that SHC are effectively distributed to consumers. Through attractive in-store displays and proactive sales efforts, these retailers ensure that a maximum number of items find appropriate buyers, enhancing the sustainability of fashion consumption.

Upon receipt of clothing items from sorting centres, employees at retail stores are tasked with opening delivered bags and boxes of SHC and organising the store according to the available clothes. This also involves pricing, a critical activity at the retail level. While clothes typically arrive at an average price based on the general quality, individual items are priced separately in-store. The pricing strategy requires an understanding of consumer preferences and allows for adjustments based on the item's appeal and condition. Retail staff then arrange these in-store, creating an inviting and consumer-friendly environment. Retail stores also engage in promotional activities, catering to the increasing demand for sustainable clothes by European customers.

The operational cycle of retail stores selling SHC often follows a dynamic sales model. Initially, high-quality items are placed on sale at higher prices and are gradually discounted to ensure they are sold, promoting efficient inventory turnover. These cycles typically run between two to four weeks (Watson, et al., 2016). At the end of each cycle, unsold clothes are usually traded at even lower prices to secondary markets, often including countries in the Global South, according to an interviewee.

In addition to the retail activities, some retail stores also accept direct, "over-the-counter" contributions of used clothing items. In this case, employees determine whether the items can be sold in the same store. Clothes sourced that cannot be sold at the store, for example, due to current fashion trends, are either sent back to sorting centres, sold on to wholesalers and retailers in other markets, or donated. This ensures that most SHC find suitable consumers, extending the life of garments as much as possible.

SUPPLY, DEMAND, AND PRICES PAID

The **supply** of SHC in European retail stores is sourced from sorting centres located across the EU27+. However, relative to the collection and retail of clothes, sorting tends to be more prevalent in Southern and Eastern Europe. This reflects the labour-intensive nature of the sorting process, making it more cost-effective to sort in countries with lower labour costs such as, for example, Poland (European Environment Agency, 2024). Several interviewees agree that relatively lower labour costs in Eastern Europe enhance the economic feasibility of the labour-intensive sorting process. Additionally, some retail stores procure clothing from sorting centres in other regions known for low labour costs, such as the Middle East. In some remote locations, for example, northern Norway, retail stores source from dedicated local sorting centres as well—an interview partner explained. Beyond the sorting centres, some retail stores obtain clothing items through direct contributions received in-store.

The **demand** for SHC in the EU27+ is characterised by a wide and increasing range of consumers purchasing either in physical stores or via online platforms. Whilst the second-hand fashion market in the EU was valued at €16 billion ($17.3 billion) in 2021, its value is expected to almost double by 2025 (Statista, 2023a). High-quality and luxury second-hand pieces are particularly sought after by fashion-conscious consumers who value both the uniqueness and sustainability of these items. Besides individual consumers, European second-hand retailers also cater to wholesalers and other retailers in different countries, often selling items, at lower prices, not directly purchased by local consumers, according to the survey results. Several interviewees indicated that the customer base for SHC has significantly broadened, reflecting a growing trend towards sustainable fashion across the EU27+.

The **pricing** of SHC across the EU27+ varies considerably, influenced largely by regional economic conditions. In Western and Northern Europe, where consumer purchasing power is generally higher, prices and revenues from SHC are also greater. Consumers in these regions tend to seek out designer and luxury pieces, driving up the potential price points of such items. European retailers participating in our quantitative survey reported average prices of €11.34 ($12.26) per kg of clothes sold to consumers in Western and Northern Europe, with prices ranging as high as €42.92 ($46.41) per kg. These very high prices are usually seen with trendy vintage pieces, according to one interviewee. Conversely, in Eastern Europe, the focus often lies on high-quality clothes at more accessible prices, reflecting the relatively lower disposable incomes in these areas. Here, surveyed retailers reported average prices of €7.81 ($8.45) per kg of clothes sold to consumers.

As the demand for SHC continues to rise—driven by increased consumer awareness of environmental issues and a growing preference for sustainable fashion—prices for the high-quality textiles could increase further in the future. This trend suggests a robust future for the SHC market in the EU27+, as it aligns with broader consumer shifts towards sustainability and ethical consumption.

2.5. IMPORT AND WHOLESALE IN AFRICA

OVERVIEW AND STAKEHOLDERS INVOLVED

Wholesalers act as importers and distributors of SHC items by operating wholesale outlets across their countries. Some of them also perform a second-round categorisation of the imported bales. Thus, they often play dual roles, ensuring the flow of clothing meets both regulatory standards and local market demand. Their operations are critical to ensure the import of the correct clothing mix and for

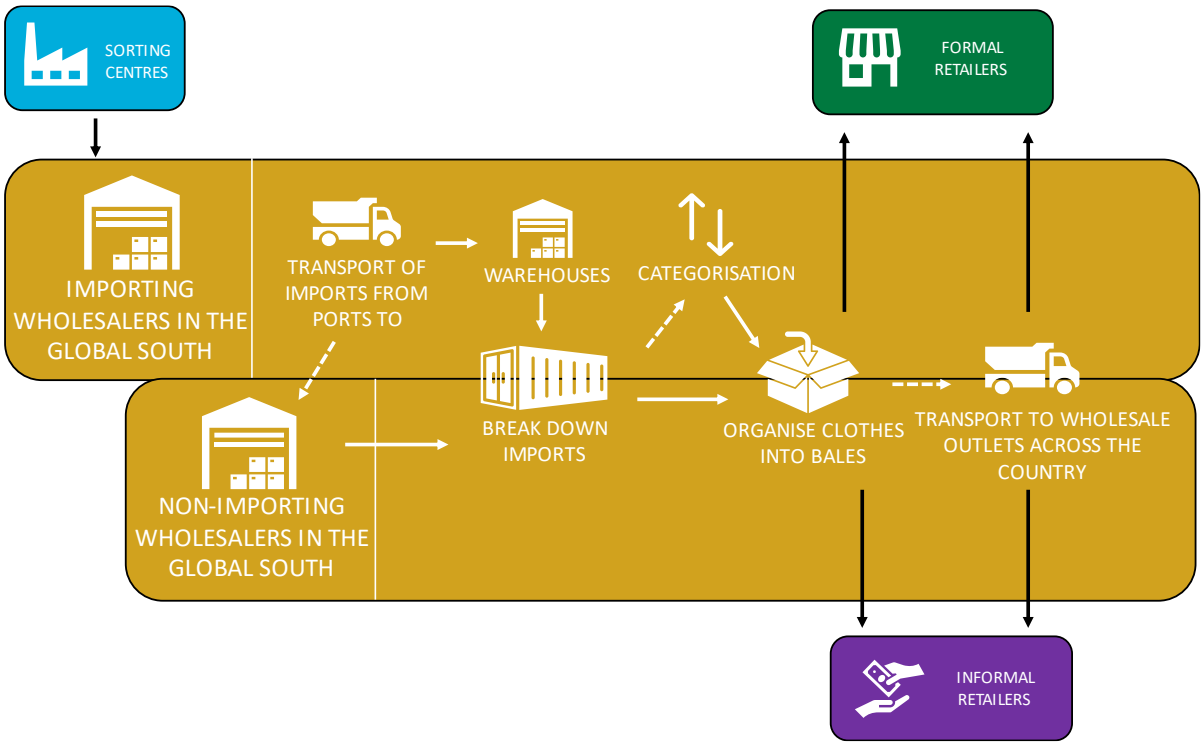
the distribution of re-wearable clothing to various retailers across the country. Many wholesalers often have a distinct client base that depends on their ability to supply specific types of clothing as requested. Therefore, wholesalers maintain relationships with sorting centres in Africa, Europe, the Middle East, and Asia lasting several years, as effective relationships with sorting centres are key to ensure the right type and quality of clothing items, according to several interviewees.

Although wholesalers commonly act as both importers and distributors, some actors may also act exclusively as importers or distributors. Thus, a distinction can be made between importing and non-importing wholesalers. In Ghana, for example, containers of imported SHC are often directly transported to the Kantamanto market in Accra—one of the biggest second-hand markets in the world (Ahiable & Triki, 2021). Here, importing wholesalers may sell directly to retailers who take on the task of distributing the clothes. According to our survey, importing wholesalers also sell to "middlemen", "brokers", or non-importing wholesalers, who distribute the clothes and act as a bridge between importing wholesalers and retailers across the country.

FIGURE 11: WHOLESALERS IN KENYA, MOZAMBIQUE, AND GHANA, JUNE 2024

Source: Oxford Economics based on on-site observations

FIGURE 12: STYLISED OVERVIEW OF THE STEP "IMPORT AND WHOLESALE IN AFRICA" IN THE VALUE CHAIN



Source: Oxford Economics, with icons from The Noun Project (Wagiman, icon 5)

VALUE-ADDING ACTIVITIES

Wholesalers play a critical role in the SHC value chain, particularly those involved in direct imports. They often initiate their value-adding process well before the clothing reaches the domestic markets by precisely defining their inventory needs (Brooks, 2013). These wholesalers communicate directly with their supplying sorting centres, specifying the types and quantities of clothing required, and maintain long-lasting relationships—interviewees explained. Given that clothing bales may remain sealed after sorting in the absence of further second-round sorting, wholesalers must have confidence in the consistent quality of SHC from suppliers. Longstanding relationships help ensure that sorting centres meet quality expectations reliably, as their understanding of the wholesalers' preferences deepens over time. The sustained quality of the bales is essential for wholesalers to maintain customer satisfaction and, consequently, ensure their profitability.

Particularly in nations with clothing import regulations, such as Kenya and Ghana, wholesalers ensure that the imports meet the local regulations. These regulations mandate the import of finely pre-sorted clothing items, which wholesalers manage by sourcing from regions with comparatively low labour costs, such as Eastern Europe or even other, non-European regions. For example, SHC exports from the EU27+ destined for some African countries may first be processed in, for example, Dubai or India due to even lower labour costs (Brooks, 2013). Similarly, Pakistan's largest export destinations for used clothing items are Kenya and Mozambique (see Chapter 3). This processing of clothes in countries different from the initial country of collection results in complex and often non-transparent supply chains and transport routes (Brooks, 2013). Therefore, this report focuses explicitly on direct imports of SHC items in Ghana, Kenya, and Mozambique from the EU27+.

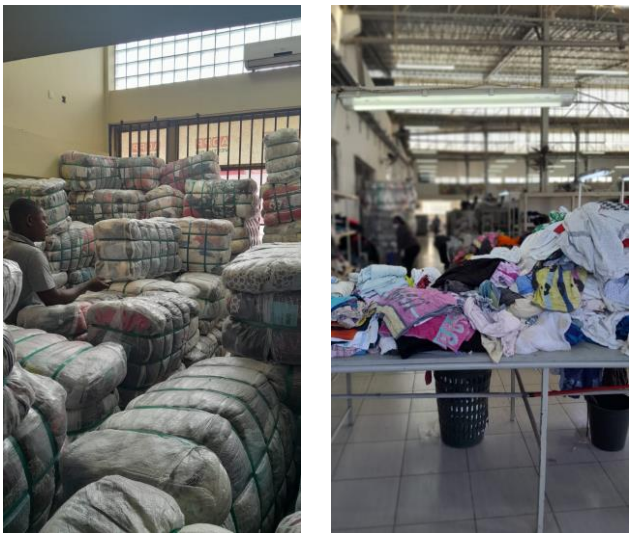
Additionally, importing wholesalers are instrumental in maintaining efficiency and cost-effectiveness through their management of large-volume imports. According to our interviews, importing wholesalers handle extensive quantities of pre-sorted clothing, shipped in container loads that meet strict volume requirements. This scale of operation not only ensures a reduction in operational costs but also guarantees a continuous supply of clothing in the selected African markets.

Furthermore, wholesalers oversee comprehensive logistics operations that are essential for the distribution of these imports within Ghana, Kenya, and Mozambique. First, they manage the transportation of goods from ports to their warehouses, where they break down bulk imports into individual bales of clothing. At the warehouses, wholesalers typically store clothing items and sell individual bales to retailers or other wholesalers. If wholesalers operate different outlets across the country, they also manage the transport to these wholesale outlets, such as in Mozambique. Similarly, wholesalers may also offer the transport of bales to retailers (Watson, et al., 2016). This logistical process allows wholesalers to meet the specific demands of local and regional markets effectively.

Some wholesalers, particularly those based in significant SHC hubs, also export goods to other, mostly inland, African countries (Cobbing, et al., 2022). Reasons may include a better match between market preferences and the characteristics of the clothing available, or logistical reasons such as the availability of ports in one but not the other country.

As discussed above, the role of wholesalers depends on the surrounding market structures. With more than 70% of all SHC imported into Ghana being directly distributed via the Kantamanto market (Ahiable & Triki, 2021), the wholesale stage often splits into importing and non-importing wholesalers who perform different value-adding activities concerning the import and distribution of used clothing items. In Mozambique and Kenya, on the other hand, interviewed wholesalers reported that they both import clothes and distribute them via wholesale outlets in different regions across their respective countries.

FIGURE 13: IMPORTING AND SORTING IN MOZAMBIQUE, JUNE 2024



Source: Oxford Economics based on on-site observations

Finally, some wholesalers perform a second-round categorisation that adds further detail to the sorting of bulk imports into distinct clothing categories—also depending on the country they operate in. In Guinea Bissau, Malawi, and Mozambique, for example, the clothes—already sorted into bales of approximately 450 kg according to their general suitability, such as the tropical mix for Africa (Lampel, 2020)—undergo a second-round categorisation upon arrival (ADPP Guinea-Bissau, 2024; ADPP Mozambique, 2024; DAPP Malawi, 2024). Interviewed stakeholders in Ghana disagreed on whether dedicated sorting takes place, while interviewees in Kenya generally agreed that all sorting takes place before clothes are exported to Kenya.

According to an interviewee affiliated with a sorting centre in Mozambique, the imported tropical mix is first organised into different primary categories. These categories usually include children, ladies, men, unisex, textiles, winter, and miscellaneous items. Subsequently, a finer categorisation is undertaken to sort the clothing into over 100 specific categories based on clothing type and quality. While imported bales generally have a similar quality mix, there are some differences in the quality of individual garments within the bales. Separating clothes based on condition and type is therefore key to meet the demand for different qualities and products in the market. In addition, while the first-round sorting in the Global North does filter out most textiles that are not suitable for reusing, there are still some remnants that can be filtered out through second-round sorting (Cobbing, et al., 2022).

Following sorting, the garments are organised for distribution, and packaged into bales of varying sizes suitable for different segments of the market. For example, sorting centres in Malawi create smaller bales so that individuals without large amounts of capital, often only selling a single type of clothing, can operate their businesses as well (Watson, et al., 2016). Thus, detailed second-round sorting performed by wholesalers can significantly improve the match between imported clothing items and individual customers.

Just as with the first-round sorting in the EU27+ (or other regions, such as the Middle East), the second-round sorting is a labour-intensive procedure that requires expertise and experience. According to an interviewee, employees are trained to sort clothes correctly in the initial, broader categories before being allowed to work in sorting centres in Mozambique and Malawi. Employees with a significant amount of training and expertise usually undertake the finer categorisation of clothes, as there are substantially more categories to consider. Sorting centres therefore provide significant socioeconomic benefits in the countries they are operating, creating jobs and training for hundreds of people (MIRC, 2022).

SUPPLY, DEMAND, AND PRICES PAID

The **supply** for importing wholesalers is mainly sourced from sorting centres across the world, including Europe, India, Canada, and the Middle East, according to the interviewees. From the trade data analysis (see Chapter 3.3) and on-site interviews, China is also a leading source of SHC for Kenya, Ghana, and Mozambique.[8]

The **customer** base for wholesalers is diverse and reflects the various actors within the entire SHC value chain in the studied African countries. Typically, wholesalers sell to retailers, which may be part of their organisation or external retail entities. The reliability of sorting centres extends to the wholesaler's retail customers, who rely on the consistency and quality of the products. A significant part of these retailers are informal sellers, like market and street traders. According to our survey, wholesalers sell upwards of 80% of their inventory to informal retailers in Ghana and Mozambique. Local stakeholders and industry experts attested that the situation is similar in Kenya. However, interviewed wholesalers and importers indicated that their customer base is mostly formal retailers,

[8] It should be noted that the location of sorting centres does not necessarily reflect the actual origin of second-hand clothes. For example, clothes collected in Europe may first be exported to other processing locations with cheaper labour costs, such as Dubai or India, before being transported to Africa, interviewees confirm. While importing wholesalers generally have a global reach in their procurement efforts, they try to reduce transport costs by sourcing clothes from closer regions. For many African countries, the EU27+ remains an important source for second-hand clothing due to its proximity.

which emphasises the complex distribution channels of SHC in the studied African countries. Wholesalers may also cater to other (non-importing) wholesalers who might have retail outlets in different regions, aligning with specific local demands and preferences.

The **purchase price** of clothing items constitutes a significant portion of the importing wholesaler's overall expenses. According to UN Comtrade (2024) data, the average CIF value (cost of goods including freight and insurance costs) of EU27+ SHC imports in Ghana, Kenya, and Mozambique in 2023 ranges between €0.75 ($0.81) and €0.96 ($1.04) per kg. This matches the information on import prices obtained in our quantitative survey and aligns well with the prices that European sorting centres report for clothes sold to Africa (see Chapter 2.3).

Apart from the purchase price of clothing, importing wholesalers pay import duties, and SHC surcharges (in the case of Mozambique). In sum, we estimate that wholesalers incur an average total cost (excl. VAT) per kg of imported clothes equal to €1.44 ($1.56) in Ghana, €1.68 ($1.82) in Kenya, and €1.93 ($2.09) in Mozambique—including other taxes (e.g., labour taxes, property taxes, etc.), wage costs for employees, and other logistical/operational costs (e.g., warehouse rents, transportation costs, etc.). The differences in the costs can largely be explained by the SHC surcharge in Mozambique and a lower transport distance between the EU27+ and Ghana compared to the other countries.

The **sales prices** of wholesalers differ across countries much in the same way in which operating costs do. Based on fieldwork and expert interviews, we estimate that wholesalers in Ghana sell a kilogram of SHC for an average price (excl. VAT) of €1.56 ($1.69), whereas Kenyan wholesalers sell a kg for €1.76 ($1.90), and Mozambican wholesalers for €1.98 ($2.14). Taking total operating costs per kilogram into account, we calculate that wholesalers have a typical profit margin of around 8%, 5%, and 3% in Ghana, Kenya, and Mozambique, respectively. It is notable, however, that the prices and profit margins reported during the surveys and on-site interviews varied substantially, with a wide range of sales prices being reported. These differences could, for example, be related to different types or quality of clothes. According to one interviewee, high-demand categories such as children's clothing and underwear, command prices sometimes reaching up to €6.47 ($7) per kg in Mozambique. Conversely, items categorised within the "economy class", marked by more significant wear or minor damages, may fetch as low as €0.68 ($0.73).

During the last few years, the prices of SHC have been rising consistently, with 82% of interviewed wholesalers in the studied African countries indicating that rising import costs are one of the main challenges affecting their business operations. This price increase is caused by several factors that influence the costs of importers and wholesalers. Firstly, many countries in Africa aim to limit the import of SHC by raising taxes to, among other things, protect their local textile industry. For example, the surveyed wholesaler in Mozambique estimated that a surcharge on SHC imports (introduced in 2017), added an extra cost of €0.36 ($0.39) per kg. Moreover, the Covid-19 pandemic led to notable increases in the costs of clothing, freight, and duties; and this situation worsened with the emergence of multiple geopolitical conflicts. The prevailing opinion of interviewees saw the war in Gaza and the attacks by Houthi rebels in the Red Sea particularly affecting importers of SHC by limiting trade routes and exacerbating the pre-existing increase in freight costs.

2.6. FORMAL RETAIL IN AFRICA

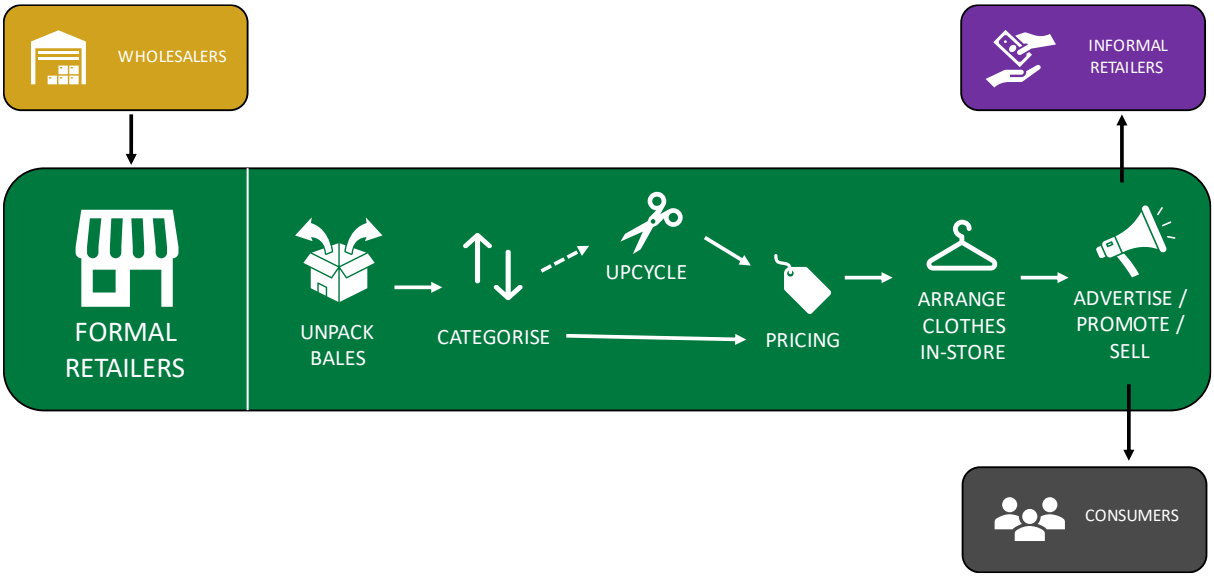
OVERVIEW AND STAKEHOLDERS INVOLVED

Retail shops in Kenya, Ghana, and Mozambique stock a variety of clothing items suited to the local climate, including summer attire for men, women, and children, household textiles, caps, bags, and shoes. They also carry a selection of clothing suitable for the brief winter period, like autumn wear in Europe.

In addition to wholesalers, retailers in many African countries are essential in distributing SHC items by serving as the initial point of contact for end-users (Diamond, 2023a). They are involved in both the physical process of distributing and selling clothes, and the supportive tasks that include market analysis or the assessment of upcoming demand dynamics (Institute of Economic Affairs Kenya, 2021). The retail operations are distributed across urban, suburban, and rural areas, thus reaching a wide demographic, including those who may not be able to afford new clothing.

In certain instances, particularly in countries lacking adequate wholesale and/or sorting facilities, retail shops also undertake the functions of importers. They receive smaller bales that are retail-ready, specifically tailored for the shop's requirements. This scenario, though less common, illustrates the adaptability of retailers in managing their supply chain to ensure a consistent offering of suitable and quality clothing directly to their consumers. In some countries, such as Kenya, retailers can become exporters and can sell clothes to other countries, complementing the domestic sub-retailers (Institute of Economic Affairs Kenya, 2021). The extensive retail operations further benefit employment, with a substantial number of people engaged in the formal retail sector in the studied African countries.

FIGURE 14: STYLISED OVERVIEW OF THE STEP "FORMAL RETAIL IN AFRICA" IN THE VALUE CHAIN



Source: Oxford Economics, with icons from The Noun Project (Soremba, Ahmad Ishaq)

VALUE-ADDING ACTIVITIES

Employees at retail stores are responsible for opening the bales and categorising the clothing. The extent of this sorting process depends on the prior sorting the clothes may have undergone. In countries where clothes are imported directly without an additional round of sorting, the retail shops themselves undertake the task of organising these items into categories. Although this task is less complex than the sorting carried out in dedicated sorting centres, it is essential to sort the contents of the individual bales based on quality and the preferences of local customers.

Pricing is another important activity at the retail level. Initially, bales arrive with an average price indicated depending on the average quality of bales, but it is in the retail shops where individual items are finally priced. This careful pricing strategy requires extensive experience and knowledge of the respective markets and allows for adjustments based on the item's appeal and condition. Items are then displayed on hangers and arranged on well-organised shelves, creating an inviting and easily navigable shopping environment. This setup not only enhances the shopping experience but also facilitates the strategic sale of higher-value items initially, followed by lower-priced items.

FIGURE 15: FORMAL RETAILERS IN KENYA, JUNE 2024

Source: Oxford Economics based on on-site observations

Like wholesalers, the operation of retail stores may revolve around a one- or two-week cycle concept, which governs the flow of goods and sales (Watson, et al., 2016). At the start of a two-week cycle, the high-quality pieces are placed for sale and subsequently replaced with clothes of lower quality. If an item of clothing cannot be sold at the advertised price, retailers gradually lower the price until the item is sold. While the length of a given "SHC-cycle" may differ, most retailers interviewed in Ghana, Kenya, and Mozambique agree that lowering the price is a key marketing strategy to ensure maximum sales.

Some retailers also engage in "upcycling" activities for a small number of items. Since bales may include some defective, but repairable, clothing items (e.g., shirts with a missing button), retailers may perform minor repairs directly to extend the lifespan of clothes and to increase profits. In other cases, retailers work with local tailors to repair or improve items (Diamond, 2023a). Some tailors customise items to create unique pieces. Finally, retailers might sell unsold, defective clothes at discounted prices to market traders who, in turn, repair or repurpose the clothes and subsequently resell them.

Retailers also actively engage with customers and promote their products. Employees frequently interact with potential customers outside the stores to advertise the available clothing. According to one interviewee, another advertising strategy is the use of social media, such as WhatsApp groups, to highlight high-quality pieces. This proactive approach to sales is crucial for attracting customers into the stores and encouraging purchases of items that might otherwise remain unsold. Such promotional activities are essential for driving sales given the many competing retail stores in the market.

Finally, retailers may add value by communicating with sorting centres in other regions, highlighting the specific requirements for bales in their respective countries. This is particularly common with retailers that also act as importers (see above). Through this communication, retailers ensure that sorting centres can prepare smaller, retail-ready bales fit for sale in the respective countries. This step is essential for the profitability of the retail stores—and consequently, the supply of SHC within the respective countries—as they would not be able to sell the large quantities imported through sorting centres and wholesalers.

SUPPLY, DEMAND, AND PRICES PAID

Surveyed retailers in Ghana, Kenya, and Mozambique reported that they typically source their **supply** from domestic wholesalers in bales of varying sizes. While larger retail establishments may opt for bigger bales, smaller retailers commonly opt for smaller bales that include a clothing mix fitting their customer base. If retailers are connected to a sorting centre through coordinated trading relationships (Brooks, 2013), for example by being part of the same organisation, they may also receive high-quality bales directly from the sorting centre.

Interviewed retailers indicated that their **demand** stems from a wide-ranging client base, including end-users, informal traders, other retailers, and tailors. With locations in both urban and rural areas, retail shops cater to an array of consumer needs. In urban areas, the appeal of SHC typically arises from its quality and uniqueness—with multiple interviewees recognising that consumers have a pronounced sense of fashion—whereas, in rural areas, the focus is on durability and affordability. Overall, cost-effectiveness, quality, and durability are the main reasons for consumers to buy SHC with cost-effectiveness being the most-named reason (Diamond, 2023a). Interviewed customers agreed that they purchase SHC as it is less expensive than new clothing and that the quality is often better.

Moreover, the retail stores' customer base also includes those who buy to resell. This practice of reselling concerns all price ranges with different traders focusing on distinct market segments, from high-end designer items to more affordable goods that attract bargain hunters. Many of these traders focus on a single type of clothing (Ricketts & Skinner, 2019). Some of these traders are looking for high-end items even when prices are high to resell these to selected customers.

Formal retail shops typically manage to sell almost all their stock, with interviewed stakeholders collectively agreeing that retail shops systematically reduce prices until clothes are sold. Retail shops initially offer high-quality items at relatively high prices—though these are still inexpensive compared to new items, with comparable new garments costing between two and five times more (Watson, et al., 2016). Over the next few days, prices are gradually reduced to facilitate sales, ensuring items are not left unsold due to factors like size or outdated styles. If necessary, prices are lowered further until other traders purchase the products for repair or upcycling. Tailors and repairers, for instance, seek to maximise their profit margins by buying these remaining clothes at very low prices.

As a result, only a small percentage of clothes end up unsold. Some retailers even sell the remaining unsold clothes to different industries, such as industrial manufacturers for cleaning machinery, repurposing the clothing items, and thus further reducing waste (Diamond, 2023a). It was consensus among interviewees that even rates of unsold stock as low as 5% are unusually high. This number is corroborated by research conducted by the Mitumba Association, finding that only around 1-2% of SHC sold by retailers end up as waste (Diamond, 2023a).

Due to the heterogeneous nature of the formal retail trade, with different retailers operating in more urban or more rural areas, catering to different customer bases, selling different types of clothes, and pricing the items dynamically, it is not easy to quantify an average **price paid** to formal retailers per kg of SHC sold. However, using the method of triangulating data from academic literature, quantitative surveys, and workshops with local stakeholders and industry experts, we worked out estimates which certainly fall within a realistic range. In Ghana, a formal retailer sells a kilogram of SHC for an average price (excl. VAT) of about €2.85 ($3.08); in Kenya, this price is equal to €2.74 ($2.96); and in Mozambique, it is equal to €3.32 ($3.59). Considering country-specific differences in the purchase price of clothes from wholesalers and taking estimates for other operating costs into account, we find that formal retailers across these three countries have profit margins of roughly between 10-15%, which, according to industry experts, are realistic figures.

2.7. INFORMAL RETAIL AND MARKET TRADE IN AFRICA

OVERVIEW AND STAKEHOLDERS INVOLVED

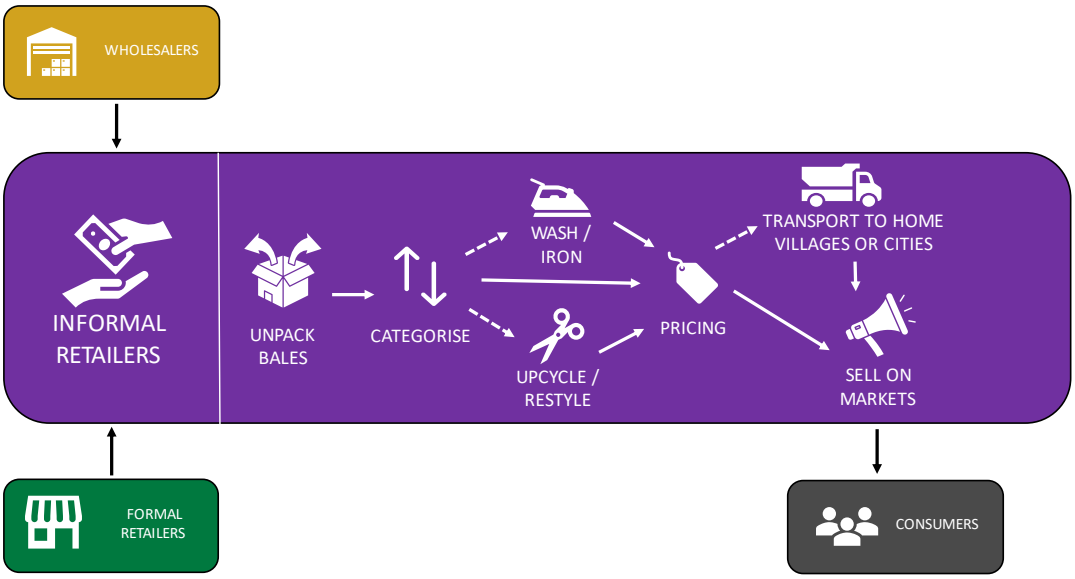
The formal SHC industry in Ghana, Kenya, and Mozambique—among other African countries—is complemented by a large network of traders who operate primarily from large marketplaces. Overall, the greatest volume of sales in the Global South's SHC industry occurs in these marketplaces, where informal businesses sell an extensive range of clothing items (Watson, et al., 2016).

FIGURE 16: INFORMAL RETAILERS IN KENYA, MOZAMBIQUE, AND GHANA, JUNE 2024

Source: Oxford Economics based on on-site observations

The informal markets involve various stakeholders. Informal retailers wash, iron, and restyle clothing to sell at higher prices, ambulant street sellers transport clothes to different locations to sell, and so-called "pickers" select the very best pieces to sell to more affluent customers. These different kinds of traders are all key participants in informal markets. Beyond those directly involved in retail, these markets provide significant indirect employment opportunities, such as porters who perform the critical task of transporting bales of clothing (Ricketts & Skinner, 2019) from wholesalers to market sellers, as well as tailors, who alter or mend SHC for customers.

FIGURE 17: STYLISED OVERVIEW OF THE STEP "INFORMAL RETAIL AND MARKET TRADE IN AFRICA" IN THE VALUE CHAIN



Source: Oxford Economics, with icons from The Noun Project (Soremba, Ahmad Ishaq)

VALUE-ADDING ACTIVITIES

Informal retailers and market traders perform several value-adding activities that enhance the utility and appeal of SHC, catering to a diverse customer base across both urban and rural settings. These activities are similar, but not necessarily as extensive, as those performed by their formal counterpart. Their operations are characterised by a dynamic approach to sorting, pricing, and selling and help ensure that SHC is accessible to as wide an audience as possible.

Due to the different types of informal retailers, there are several distinct value-adding activities performed at this stage. Upon receiving their supplies, typically in single bales from wholesalers, market traders conduct their own sorting process where the informal retailers categorise items into several quality levels. According to Rickets & Skinner (2019), these categories typically include first-selection items, which are of the highest quality and include garments that have never been worn or are particularly fashionable and undamaged; second-selection items, which have been worn but remain fashionable and well-maintained; third selection items, which may show obvious damages, be the wrong size, or not fit local

FIGURE 18: SORTING IN PROGRESS, JUNE 2024

Source: Oxford Economics based on on-site observations

preferences; and a category known as "under"[9], which includes items retailers consider waste. This sorting method was confirmed by interviewed informal traders.

Some traders also engage in washing and ironing clothes to enhance their value before sale. Approximately 20% of interviewed informal traders indicated that they wash and iron clothing before reselling. Some informal retailers take clothes that may be out of fashion or slightly damaged and transform them into trendy pieces, such as adjusting the fit of jeans to meet current style preferences. This not only extends the life of the clothing but also taps into a market segment that values affordable and unique fashion options.

FIGURE 19: REPURPOSING SECOND-HAND CLOTHING, JUNE 2024

Source: Oxford Economics based on on-site observations

Moreover, some informal retailers specialise in identifying and purchasing high-end items through quality bales or directly from other retailers, which they then sell to a niche market willing to pay premium prices for designer items. This practice of targeting different market segments ensures that all types of clothing, from everyday wear to luxury brands, find suitable buyers.

Another significant aspect of the informal retail sector is the transportation and distribution of these clothes beyond the primary market locations. Several interviewees noted that some informal retailers purchase large quantities of bales and transport them to their villages or cities. In Ghana, informal traders also sell bundles of the lowest quality clothing to traders from rural areas, thus extending the reach of SHC to regions that might not typically have regular access to such markets. This activity is crucial in making affordable clothing available to broader sections of the population, especially in more remote areas.

Finally, informal retailers also contribute creatively to the local economy by converting less-desirable garments into other useful items like school bags or small accessories, demonstrating the innovative reuse and adaptation of materials within the SHC industry. These varied activities by informal retailers and market traders not only enhance the economic value of SHC but also support a sustainable approach to fashion consumption.

SUPPLY, DEMAND, AND PRICES PAID

Informal retail actors in the SHC market source their **supplies** through a variety of channels. Most commonly, they purchase single bales from domestic wholesalers. In Ghana, for example, interviewed informal retailers pay between GHS1,300 and GHS8,000 ($95 and $580)[10] for an individual bale (typically weighing between 45kg and 55kg). On average, such a bale consists of around 350 clothing articles with varying quality: 18% of items are first-selection items, 30% are second-selection items, 46% are third-selection items, and 6% are waste (Rickets & Skinner, 2019). In contrast, fieldwork conducted by the Ghana Used Clothing Dealers Association shows 71% of traders assessing their

[9] While the label "under" is specifically used in Ghana to describe these fourth-selection or fourth-grade items (see, e.g., GIZ (2024)), we broadly use the term to describe the lowest-quality items in Ghana, Kenya, and Mozambique.
[10] Using an average exchange rate of $13.7/GHS.

bales as containing either first- or second-selection items, with only around 30% reporting that their bales contained lower quality items. Interviewed informal retailers in Kenya reported paying between KES8,000 and KES31,000 ($57 and $221)[11] per bale, while those in Mozambique reported a range of MZN5,500 and MZN15,000 ($86 and $235).[12]

Depending on the type of operations, informal retailers also source clothing items from other suppliers. For example, traders specialising in the sale of high-end pieces will try to buy high-quality and designer clothes at every stage of the value chain in Africa, including sorting centres, formal, and other informal retailers. For these resellers, or "pickers", the existence of domestic sorting centres could be particularly profitable if these sorting centres were to sell individual high-end items at a discount compared to wholesale prices. Retailers specialising in upcycling or repairing clothing items often buy lower-price pieces at formal and informal retail shops to make larger profits after repairing the bought items.

Similarly, these different sourcing strategies also reflect the range of customers' **demands**. Next to consumers, informal retailers also sell clothes to other retailers, particularly tailers and repairers who enhance the value of purchased clothes, and "pickers" who seek high-end items from the first selection (see above). Some of the first selection pieces are also purchased by formal retailers, such as boutiques selling premium quality clothing items (Ricketts & Skinner, 2019). This demand for varying quality emphasises the need for accurate sorting, even in the informal retail stage.

Pricing strategies among informal retailers are adaptive and respond to the varying quality of items and immediate market conditions. Initial pricing reflects the potential market appeal of each item, with later adjustments made to facilitate the sale of all stock. Like wholesalers and formal retailers, informal traders progressively lower prices to ensure that items are sold, catering to different consumer affordability levels.

Being profitable as an informal retailer depends partly on the quality of bales bought from wholesalers. Bales with an unusual amount of undesirable or unsellable items will significantly impede retailers' ability to make a profit. Profitability also depends on the activities performed and the market segment the informal retailers occupy. For example, if many informal traders focus on selling the same type of goods, such as women's tops, it will become increasingly difficult to make a profit. Focussing on a more unique type of clothing, such as suits, leads to greater opportunities to resell much of the bought stock (Ricketts & Skinner, 2019). Furthermore, one interviewee estimated that informal retailers who wash and iron the clothes before reselling have higher profit margins, reaching up to 200%, with other traders only reaching profit margins of around 30% to 70%. Similar levels are reported by Brooks (2013), who states that a market trader in Mozambique may sell shirts up to twice the purchase price if the items are cleaned and ironed.

Informal retailers able to sell most of the purchased clothes can regularly cover their costs and make a profit. In Malawi, for example, an average retailer that sells one bale every 14 days can support themselves and their family (Watson, et al., 2016). However, Rickets and Skinner (2019) question whether an average market trader can support their family. With some market traders only earning up to $2 for rare high-quality pieces, only 16% of surveyed retailers make a profit by resellingSHC in

[11] Using an average exchange rate of $140.3/KES.
[12] Using an average exchange rate of $63.9/MZN.

Ghana's Kantamanto Market (Ricketts & Skinner, 2019). In our fieldwork, 38.6% of interviewed informal traders indicated that they are extremely profitable, 43.2% indicated that they are somewhat profitable and 15.9% indicated that they make enough to sustain their livelihoods. Several of the interviewed informal traders mentioned that if they aren't able to sell SHC, they will be unemployed with no means of supporting their families.

3. SHC TRADE BETWEEN AFRICA AND THE EU27+

To analyse and better understand the trade flows of SHC between the EU27+ and Ghana, Kenya and Mozambique, data were obtained from the UN Comtrade Database[13] comprising data categorised in the HS code 6309 which includes "Textiles; worn clothing and other worn articles."

As mentioned, tracing the trade flows of SHC is somewhat difficult due to the sorting and re-exporting of SHC in intermediate countries. Since imports are usually recorded with greater accuracy than exports—since imports generally culminate in tariff revenue—we decided to utilise import data to analyse the trade flows to the listed African states.[14] All import values are reported in cost, insurance, and freight (CIF) terms while exports are reported as free on board (FOB)[15]. Moreover, we discuss the impact of trade restrictions on second-hand trade.

3.1. GLOBAL TRADE IN SHC

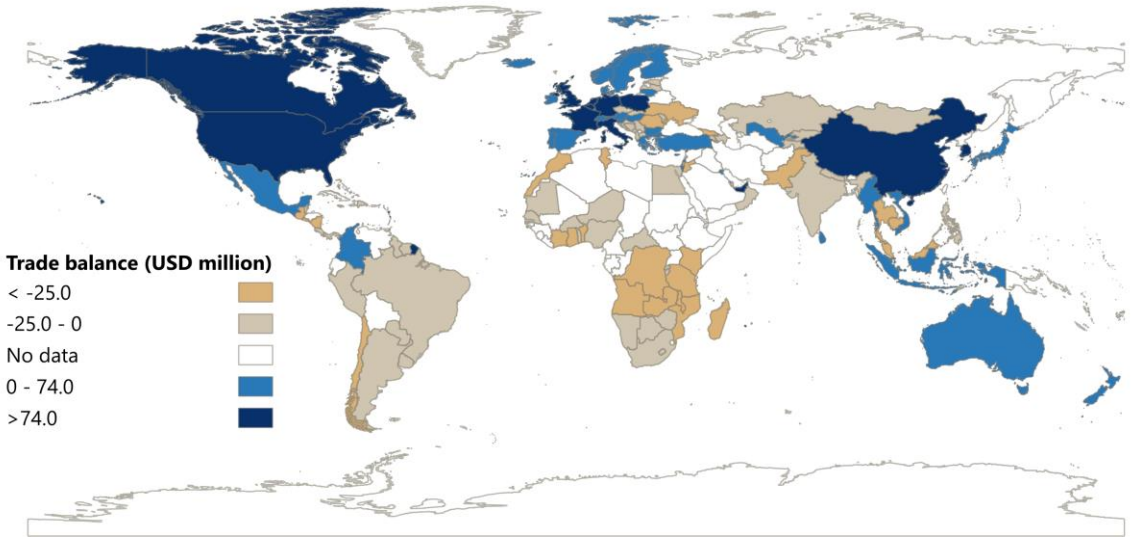
SHC typically flows from the Global North to the Global South, with the leading export regions being North America, Asia-Pacific and the EU27+ states, while most importing countries are in Africa and South America. Globally, SHC only makes up a small share of clothing trade (less than 1% of all clothing imports)[16] yet in several African countries, such as Benin, Malawi, Burundi, Madagascar, Democratic Republic of the Congo, Ghana, São Tomé and Príncipe, and Niger, SHC imports exceed new clothing imports substantially and are the primary source of clothing. These trade flows are evident in Figure 20, which illustrates the trade balance[17] of SHC in 2022.

Within the global context, the EU27+ is the leading exporter of SHC. In 2023, exports stood at 2.2 million tonnes with an estimated value of $2.2 billion. Of this, exports to the value of $688 million (701,618 tonnes) were destined for Africa, i.e. around 31% of the overall export volume.[18] Looking at individual countries only, the US ($899 million) and China ($657 million) were the largest exporters of SHC in 2023. This is followed by the UK as the largest contributor to the EU27+'s exports, with SHC exports valued at $507 million. Other major EU exporters include Germany ($333 million), the Netherlands ($234 million), Poland ($205 million), and Italy ($134 million). In recent years, exports from China have to some extent challenged EU27+'s position as a leading trader of SHC due to a rapid

[13] Downloaded in May 2024.
[14] Although exports from the EU27+ to Mozambique are used in the socioeconomic impact analysis, we report the imports to Mozambique in this chapter to ensure comparability between the countries.
[15] CIF may be defined as the cost of a commodity delivered when it is delivered to the importing nation's port, whereas FOB refers to the price of a traded good including its value and the costs associated with loading it onto the transport vessel. However, FOB excludes international transportation (i.e., freight) costs, insurance, and payments for other services associated with moving the commodity to its final consumption point.
[16] In 2022, global clothing imports[16] to the value of $648 billion were reported, while second-hand clothing imports stood at $4.1 billion.
[17] The trade balance is calculated by subtracting imports from exports, showing the countries that are net importers, and net exporters of second-hand clothes.
[18] In 2023, imports of second-hand clothes into the EU27+ were an estimated 751,620 tonnes valued at $923 million.

growth in exports. With exports totalling $101 million in 2013, China was the 12th largest exporter of SHC in that year. By 2023, China was the second largest exporter globally, exporting 460,621 tonnes of clothes.

FIGURE 20: TRADE BALANCE OF COUNTRIES TRADING SHC, 2022[19]



Source: Oxford Economics using UN Comtrade data (2024)

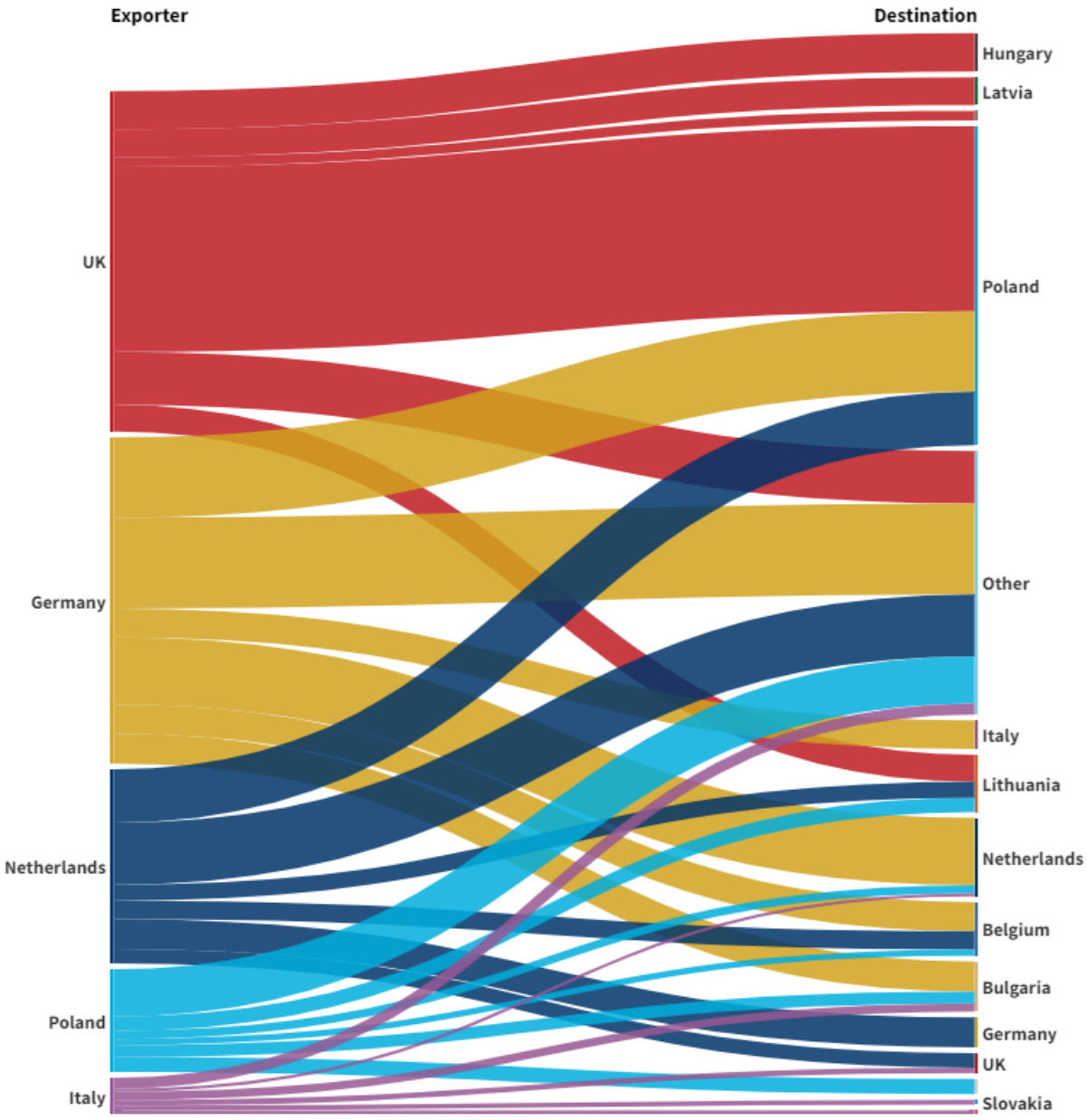
3.2. EXPORTS FROM THE EU27+

Many European exports remain within continental boundaries, and it is suspected that several countries serve as intermediary countries for sorting and re-exporting. Of the 751,620 tonnes imported into the EU27+ in 2023, 83% stemmed from other EU27+ countries. Figure 21 shows the export channels of the five largest exporters in the EU and the UK, as well as the top five EU trading partners of each.

Poland was the largest recipient of SHC from the EU27+ countries in 2023. Exports to Poland totalled $201 million (or 167,014 tonnes), with the largest share originating from the UK ($101 million) and Germany ($44 million). Poland in turn, exports to countries such as Ukraine, Ghana, and Uganda, as well as EU countries such as Lithuania, Romania, and Bulgaria. Stakeholders have often referenced all four EU states in relation to existing sorting facilities due to the lower cost of labour. These trade flows may therefore reflect the division of labour within the European SHC industry, with Eastern European countries playing an important role within the sorting stage.

[19] The latest trade data for most countries in the world is 2022.

FIGURE 21: VALUE OF INTER-EU27+ EXPORT OF SHC, 2023

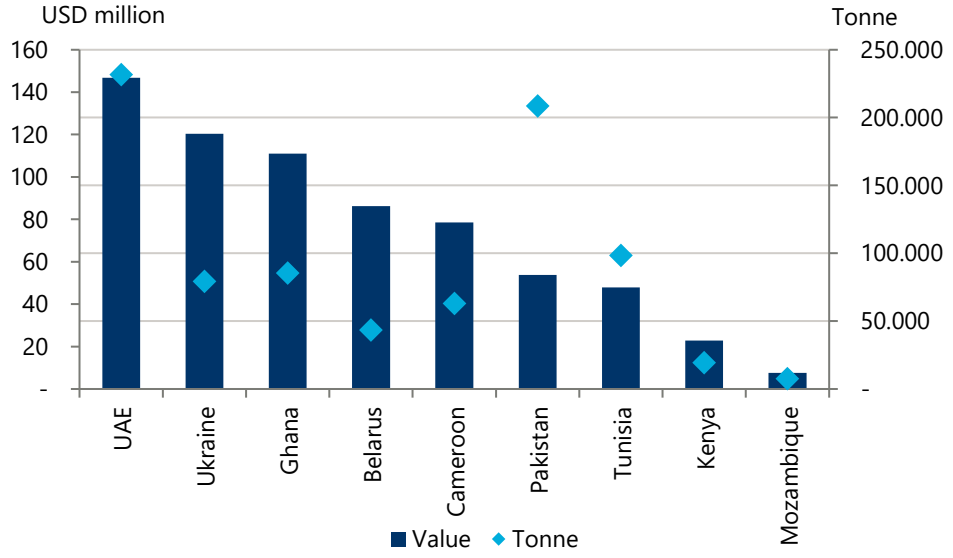


Source: UN Comtrade (2024)
Note: At the time of writing, 2023 data for Austria was not available. Using ITC Trade Map data, 2023 data for Austria was estimated.

Excluding exports to other EU27+ countries, the EU27+ exported around 1.5 million tonnes of SHC globally, totalling $688 million in 2023. Exports to Africa accounted for around 47% of the exported quantity and 50% of the total export value reported by European countries. The most important European exporters of SHC to Africa are the UK, Italy, and Poland, with 17%, 16%, and 13% of the total quantity exported from the EU27+ to Africa, respectively. All three countries have substantial sorting capacities, combining nearly 30% of the overall sorting capacity within the EU27+ (European Commission, 2023a).

The EU27+ also exports large volumes of SHC to other regions across the globe. The largest markets (in terms of volume and value) outside the EU27+ for SHC originating from the EU27+ for 2023 are shown in Figure 22, together with Kenya and Mozambique. The UAE was the largest trading partner, with 231,801 tonnes of exports totalling $147 million recorded in 2023. Pakistan was another significant trading partner, recording the second-largest volume at 208,665 tonnes with a value of $54 million. Engagements with stakeholders have revealed that SHC is shipped from the EU27+ to both Oman and the UAE for sorting and processing, before being exported to Africa.[20] Similarly, the largest export markets for SHC from Pakistan are Kenya, Mozambique, and Tanzania. These trade flows therefore point to indirect exports of SHC from the EU27+ to the African continent. As a result, a skewed representation may emerge if only direct shipments from the EU27+ to the three African states are considered.

FIGURE 22: LEADING EXPORT DESTINATIONS FROM THE EU27+, 2023



Source: Oxford Economics based on UN Comtrade (2024)

3.3. CLOTHING IMPORTS IN GHANA, KENYA, AND MOZAMBIQUE

Despite preferential trade agreements and foreign direct investments from the US, Europe, and China in Africa's garment manufacturing industry, Africa is unable to meet domestic clothing demand and remains a net importer of both new and SHC.

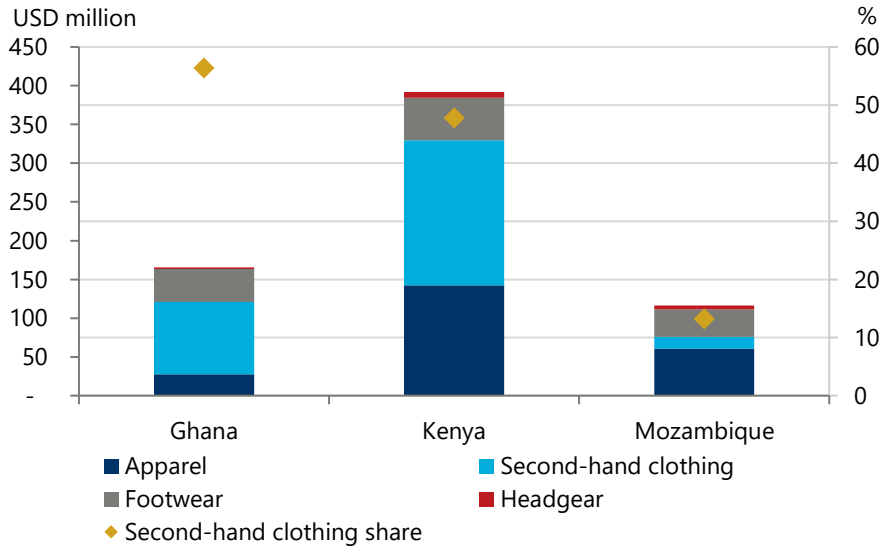
In 2023, Kenya, Mozambique and Ghana imported clothing[21] to the value of $392 million, $116 million, and $166 million, respectively. SHC in Ghana and Kenya contributes around 56% and 48%, respectively, to all clothing imports. In Mozambique, however, only 13% of clothing imports are SHC. This can be attributable to a general decline in SHC imports over the last decade, while new clothing

[20] Interviewees also mentioned that India is often used as a sorting location, however, the volume of second-hand clothing exported from the EU27+ to India account for only 0.2% of second-hand clothing exports.

[21] Includes new apparel (HS codes 61 and 62), headgear (HS code 65), footgear (HS code 64), and second-hand clothing (HS code 6309).

imports have grown rapidly. Some of Mozambique's leading trade partners for new clothes include South Africa, Bangladesh, and China.

FIGURE 23: VALUE OF NEW AND SHC CLOTHING IMPORTS, 2023

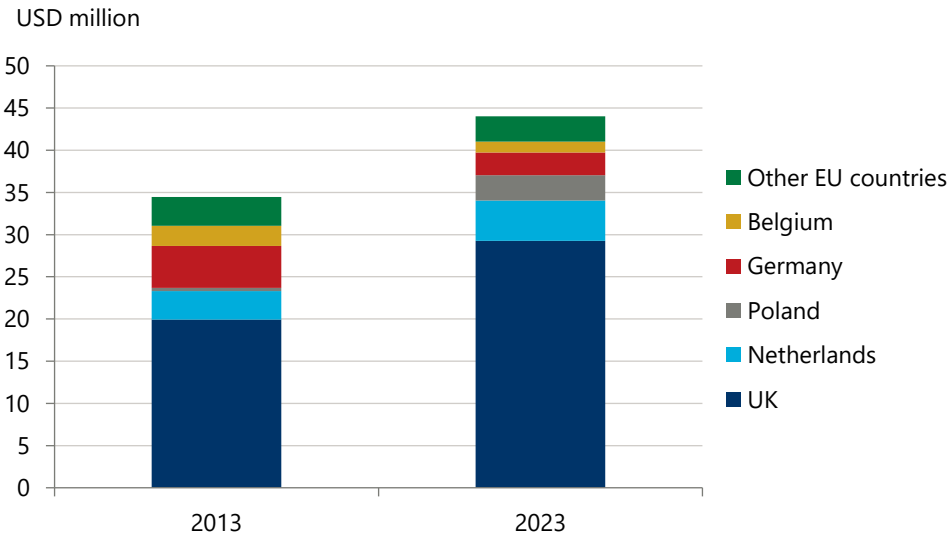


Source: Oxford Economics based on UN Comtrade (2024)

GHANA

Ghana is one of the leading importers of SHC globally. Between 2013 and 2023, the total volume of SHC imports in Ghana expanded by 3% to 110,994 tonnes. This growth was largely fuelled by a rise in imports from the EU27+ (which grew by 6% over this period) and China (which grew by 11%).

FIGURE 24: SHC IMPORTS IN GHANA FROM THE EU27+, 2013 AND 2023



Source: Oxford Economics based on UN Comtrade (2024)

In 2013, Ghana's SHC imports stood at $73 million. In volume terms, the country imported 107,907 tonnes of SHC. Key trading partners, apart from European states, included China ($17 million or 29,246 tonnes), Canada ($6.6 million or 10,275 tonnes), and South Korea ($4.8 million or 7,557 tonnes).

Ghanaian SHC imports from the EU27+ totalled $34 million and 50,820 tonnes in 2013. In percentage terms, this amounted to 47% of total SHC imports (in terms of volume and value). The UK ranked as the largest individual import destination in 2013 in value terms at $20 million (or 27% of total imports) but came in second after China when considering volume (28,722 tonnes or 27%). The EU, when considered as a regional trading bloc, ranked third after the UK and China, with Ghanaian imports from the EU amounting to $15 million (20% of total import values) and 22,097 tonnes (20% of total import volumes) during the same year.

By 2023, Ghana imported 53,970 tonnes of SHC worth $44 million from the EU27+. The largest trading partners remain the UK at $29 million (66%), or 35,452 tonnes, and the Netherlands at $4.8 million (11%), or 5,745 tonnes. However, imports from Germany declined over this period while Poland recorded rapid growth; from 565 tonnes in 2013 to 4,648 tonnes in 2023.

Interviewed importers in Ghana mentioned that clothing from the Netherlands, Portugal, Italy, Spain, and the UK is very popular. Clothing from these countries is generally easier to sell because customers perceive the quality and sizes as better than those of other countries. However, not all clothing from these markets is suitable for the local market, such as heavy winter jackets. Bales from China are also popular due to their affordability. These bales are often larger (around 80kg) and some resellers believe this to be better value for money, compared to the 45 kg bales imported from the UK and other European markets. Several informal traders also indicated their preference for clothing from the UK, Europe, Canada, and the US due to the quality of the fabric, as well as China due to the affordability of the bales.

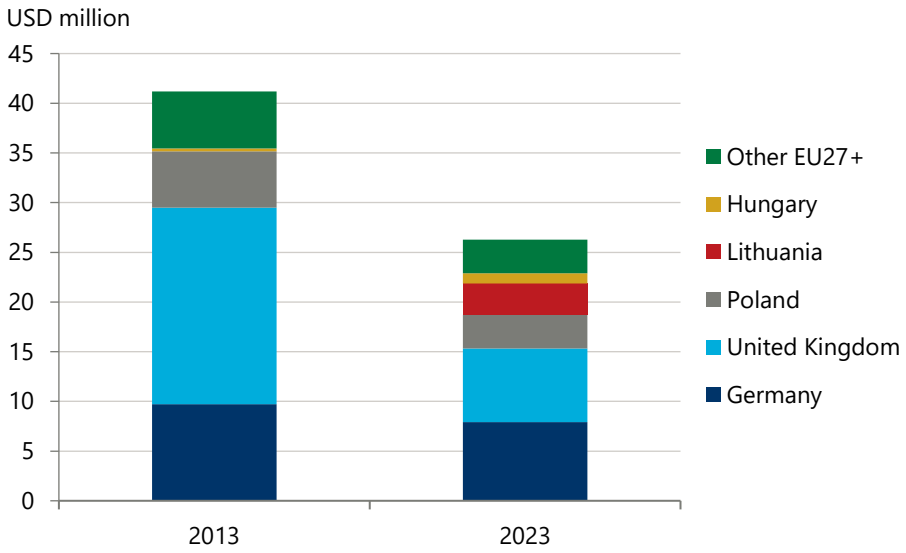
KENYA

Over the last decade, the SHC import patterns in Kenya have changed substantially. In Kenya, SHC imports were recorded at $97 million or 100,763 tonnes in 2013. The UK ranked as the largest source of imports of SHC, with imports accounting for $20 million (20%) or 20,463 tonnes (20%). However, when considering the EU as a trading partner, the bloc outranked the UK in terms of both value ($21 million or 22%) and volume (21,727 tonnes or 22%) as the largest importing destination.

Within the EU, Germany ranked first as the bloc's largest importing destination; Kenyan imports from Germany were recorded at $9.7 million or 9,798 tonnes in 2013. Still, within the EU, Poland and the Netherlands came in second and third, respectively. Imports from Poland stood at $5.7 million or 6,104 tonnes, while imports from the Netherlands amounted to $2.2 million or 2,309 tonnes during the same year.

The East African country's largest importing destination aside from the EU27+ was the US (ranking second overall) where imports totalled $14 million or 14,606 tonnes in 2013. This was closely followed by Canada, which ranked third overall with imports amounting to $13 million or 14,166 tonnes during the year. Pakistan came in fifth, with Kenyans importing $6.7 million or 7,512 tonnes of SHC in 2013.

FIGURE 25: SHC IMPORTS IN KENYA FROM THE EU27+, 2013 AND 2023



Source: Oxford Economics based on UN Comtrade (2024)

By 2023, SHC imports from the EU27+ fell to $26 million or 25,430 tonnes, which signifies a drop of 36% and 39%, respectively, since 2013. However, total SHC imports into Kenya rose dramatically over the same period, increasing from 100,763 tonnes in 2013 to 197,821 tonnes in 2023. This can largely be attributed to substantial import growth from China, Pakistan, the US, and the UAE. The volumes from these countries rose by 103,601 tonnes, 10,524 tonnes, 5,593 tonnes, and 3,809 tonnes, respectively, between 2013 and 2023.

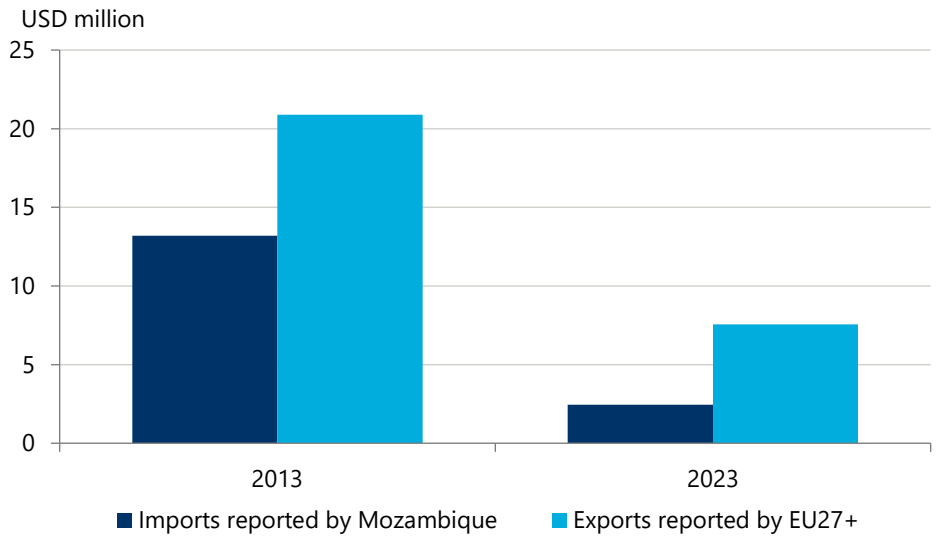
Although imports from the UAE can also be considered originating mainly from the EU27+, imports from the EU27+ have declined since 2013, largely due to the rapid growth in imports from China. Product affordability could be one of the driving forces behind the rise of Chinese imports into the Kenyan market, as some interviewees stated that bales from China are more affordable and thus sell faster. Despite this, there is still a demand for clothes from countries such as the UK and Canada, as the quality is perceived to be very high despite being more expensive. Informal traders agree that the clothes from the UK and Canada are durable and fit well, compared to clothing from the Asian markets, where sizes are smaller. One informal trader also noted that she gets very few pieces of clothing that are considered "rejects" in the bales from the European markets.

MOZAMBIQUE

Mozambique reported SHC imports of 14,843 tonnes (valued at $15.4 million) in 2023, of which 2,735 tonnes (18%) were imported from the EU27+. Notably, the imports reported by UN Comtrade are not aligned with what was reported by the interviews and collected from the survey. By comparison, the

EU27+ reported SHC exports to Mozambique had a value of $7.6 million (7,600 tonnes), which aligns better with the import numbers reported by stakeholders.[22]

FIGURE 26: MIRROR SHC TRADE DATA BETWEEN MOZAMBIQUE AND THE EU27+, 2013 AND 2023

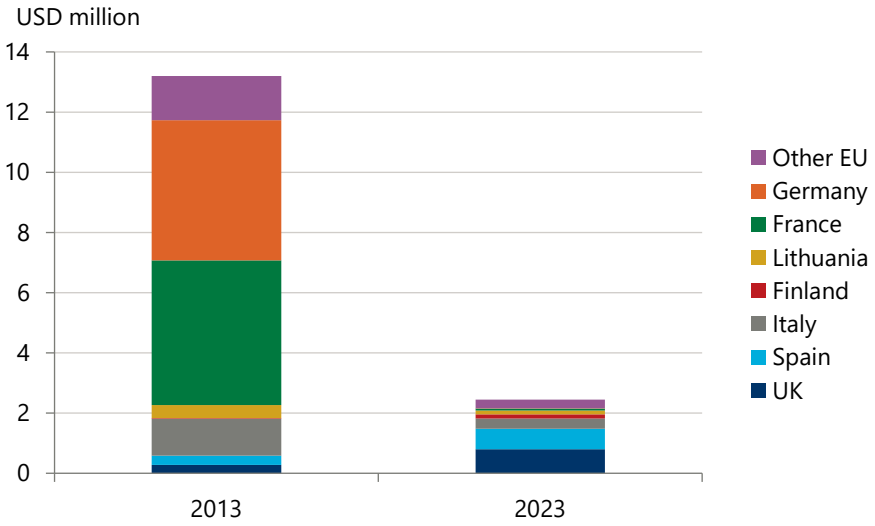


Source: Oxford Economics based on UN Comtrade (2024)

Like Kenya, the SHC industry has changed greatly since 2013. Mozambiquan reported imports of SHC were approximately $66 million (or 65,656 tonnes) in 2013, with the largest trading partners being the UAE ($11 million), the US ($9.6 million), and China ($7.1 million). Imports from the EU27+ stood at $13 million and 13,910 tonnes, comprising 20% of the total value and 21% of the volume of SHC imports into Mozambique. In 2013, the largest trading partners in the EU27+ were France ($4.8 million) and Germany ($4.7 million).

[22] Asymmetries between import and export data occurs due to several reasons, including different valuation methods of imports (CIF) and exports (FOB), time delays when exports are reported vs imports, reporting goods in different categories by the importer and the exporter and differences in data quality between countries (UN Comtrade, 2010).

FIGURE 27: SHC IMPORTS IN MOZAMBIQUE FROM THE EU27+, 2013 AND 2023



Source: Oxford Economics based on UN Comtrade (2024)

However, over the last decade, SHC trade in Mozambique has declined, not only from the EU27+ but also from all the major trading partners. In 2023, total imports stood at 15,394 tonnes ($15 million), a 77% reduction in volume and value. The introduction of a surcharge on SHC imports in 2017 could have contributed to this decline.

Imports from the EU27+ fell from $13 million (or 13,910 tonnes) in 2013 to just $2.4 million (or 2,735 tonnes) in 2023; however, this still accounted for 18% of the overall volume of SHC imports. Within the EU, Spain ($673,000), Italy ($339,000), and Finland ($148,000) were the largest importing partners during 2023.

Considering that the EU27+ also exports large volumes of SHC to the UAE and Pakistan, the decline of the EU27+ as a source market for SHC in Mozambique may be more pronounced. Despite the decline in imports, SHC remains a popular choice among consumers, given its affordability. Interviewed informal traders mention that clothing from China and Australia is popular and easy to sell in the markets of Maputo.

3.4. DISCUSSION OF TRADE IMPACTS ON THE LOCAL ECONOMY IN THE GLOBAL SOUTH

TRADE RESTRICTIONS

While most African countries levy import tariffs on SHC concerns regarding the impact on the local textile and clothing manufacturing industry, as well as the perceived contribution to waste, have prompted several African countries to restrict imports through tariff and non-tariff barriers. Most notably, in 2016, the East African Community (EAC) agreed to ban all SHC imports by 2019. However, the ban was considered an infringement of the AGOA. As such, Kenya withdrew its intentions to ban SHC imports, and to protect its export-orientated clothing manufacturing industry, which benefits substantially under the trade agreement (USAID, 2017). Rwanda increased their tariff from 20 cents to US $2.50 per kilogram and has since been removed from preferential trade under AGOA (Olingo, 2018). In 2023, Uganda's president remarked that people should stop wearing SHC as it deters local

producers from entering the market (Office of the President, The Republic of Uganda, 2023). AGOA is set to expire in 2025, which raises the risk that SHC imports may be restricted in future if the preferential trade agreement is not renewed.[23] Other African countries where trading with SHC is banned or restricted include South Africa[24], Ethiopia, and Zimbabwe.[25]

In Ghana, the local standards authority prohibits importing second-hand underwear and handkerchiefs due to sanitary concerns, while SHC is classified as high-risk goods, which are goods with "serious health, safety and environmental implications" (Ghana Standards Authority, 2024). Kenya briefly banned the imports of SHC between March and August 2020 over fears of spreading Covid-19 (Diamond, 2023a).

In 2023, the Council of the African Continental Free Trade Area (AfCFTA) agreed to develop a protocol to prevent preferential trading of SHC under the AfCFTA agreement (African Union, 2023). The AfCFTA aims to create a single market for goods and services on the African continent and will therefore apply to intra-Africa trade. Some of the key objectives of the AfCFTA are to enhance the competitiveness of African economies and to promote industrial development through diversification and regional value chain development, agricultural development, and food security. The AfCFTA agreement aims to progressively eliminate tariffs and non-tariff barriers to trade in goods between African states. The main reason to adopt a protocol specifically focussed on SHC stems from the need to protect and expand the local textile industry of the continent. African countries will still be able to import SHC from international trade partners, however, such a protocol will assist in curbing the transhipment of SHC between African states to avoid import tariffs.

IMPACT OF TRADE RESTRICTIONS

To protect and expand local manufacturing capabilities, several countries in the Global South have considered the banning of SHC imports. However, some interviewees question whether local textile industries can meet domestic market demand even when SHC imports are prohibited. As a result, the population may have to rely on higher-priced new clothing, or cheap fast fashion imports.

Rwanda is one of the countries that banned SHC, yet, according to the ILO (2018), one of the key constraints for textile and clothing manufacturing in the country is weak local demand. Rwanda has a small middle-income cohort that can afford new, locally made clothing. Furthermore, access to cheap, new clothing imports has not been restricted. The large low-income cohort of the population that purchased SHC is unlikely to afford locally produced clothes, as such, the ban on SHC will have a limited impact on boosting the local manufacturing industry.

Uganda's president also announced banning SHC imports in 2023 to support local garment manufacturing. However, the decline of the local clothing manufacturing industry was the consequence of nationalisation in the 1960s and 1970s which led to serious mismanagement. In

[23] The AGOA Renewal and Improvement Act of 2024 could extend the agreement to 2041. The Senate Finance Committee held a hearing in June 2024 to consider the renewal of the AGOA Agreement.

[24] Importing second-hand clothing in South Africa is restricted and an import permit is required from the International Trade Administration Commission (ITAC) of South Africa. However, generally, such permits are not granted to protect the local clothing manufacturing industry (ITAC, 2023).

[25] Zimbabwe banned second-hand clothing imports in 2015, however, the total ban was replaced with restrictive measures, including requiring an import permit and high import tariffs (US$5/kg) (Zimbabwe Revenue Authority, 2022).

addition, Uganda had a legacy of poor application of new technologies, unfair trading practices, weak linkages across the value chain, and a lack of technical skills, which also prevented local clothing manufacturing from being successful (Wolff, 2020).

STATE OF THE LOCAL TEXTILE INDUSTRY IN GHANA, KENYA, AND MOZAMBIQUE

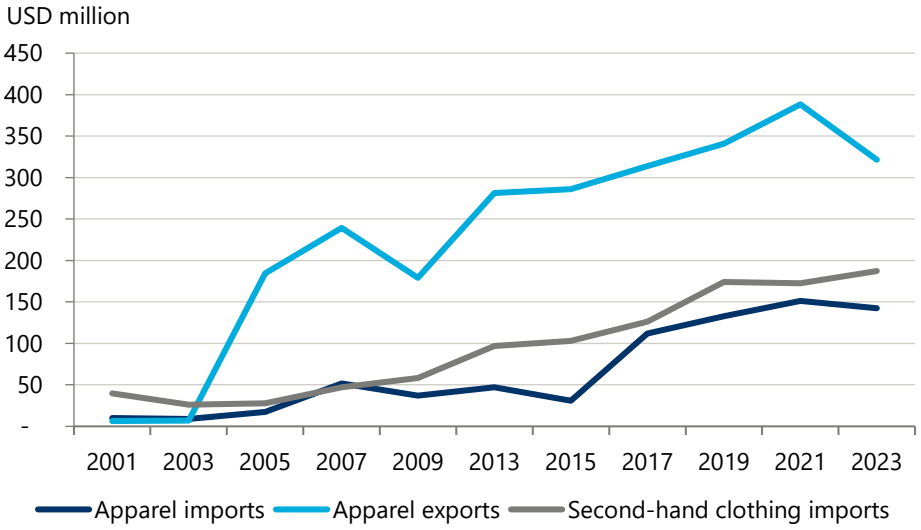
The SHC trade has often been criticised for undermining the local apparel industry in African countries. However, Africa's textile manufacturing industry has a long history of deterioration which started with a rapid rise in globalisation and market liberation policies that were introduced in the 1980s and 1990s. It is estimated that in Ghana, employment within the industry declined from 25,000 in 1975 to 5,000 in 2000 (Quartley, 2006). One of the pivotal moments affecting the textile manufacturing industries in African countries was the termination of the World Trade Organisation's (WTO) Agreement on Textiles and Clothing (ATC) in 2004. This further liberalisation of the market led to a rise in international competition within the industry, with China's share of textile exports growing rapidly (Wick, 2009). Countries that mainly exported clothing, such as Kenya, Lesotho, Madagascar, and Mauritius were especially vulnerable to the increased competition from China (UNCTAD, 2004). Local producers were also unable to compete with the rise of cheap new clothing and 'fast fashion' products imported from Asian markets.

With African economies becoming more open to international trade, it also allowed for increased SHC trade, largely due to the demand for affordable clothing. While Frazer (2008) estimates that SHC imports in Africa explain approximately 40% of the decline in apparel production and a 50% decline in employment in the apparel industry between the 1980s and 2000s, Brooks and Simon (2012) argue that several factors, such as weak demand, poor purchasing power, the privatisation of manufacturing firms, increased competition from imported clothes produced in Asia and poor management led to the decline of local textile manufacturing activities. One of the inherent weaknesses in the African textile and garment manufacturing value chain is textile processing. In most cases, cotton is exported to China while the fabric is imported to Africa (Xiaoyang, 2014).

While SHC imports have surged in **Kenya** to meet local demand for affordable clothing, the local textile manufacturing industry has benefitted from the AGOA preferential trade agreement enacted in 2000 by the US. Under AGOA, exports of new apparel[26] from Kenya have grown from $6.4 million in 2000 to $321.3 million.

[26] Measured using HS codes 61 (apparel and clothing accessories; knitted or crocheted) and 62 (apparel and clothing accessories; not knitted or crocheted).

FIGURE 28: APPAREL AND SHC TRADE IN KENYA OVER TIME



Source: Oxford Economics based on UN Comtrade, 2024

Despite the growth in exports, the industry faces some constraints including low labour productivity, ageing machinery and low technology usage, and textile mills operating below capacity due to an undersupply of cotton (KIPPRA, 2023). Other challenges hindering the industry include the high cost of electricity, a lack of skills, and the cost and time to export clothing to major markets (Konishi, et al., 2015). While the value of apparel exports has grown by 13% y/y since 2000, apparel imports have surged by 20% y/y while SHC imports have expanded by only 7% y/y. From a consumer perspective, new and SHC are not viewed as substitutes in Kenya, as consumers spend money on both types of clothing (Institute of Economic Affairs Kenya, 2021). However, a large share of clothing purchases by Kenyans are second-hand; based on the interviews with SHC customers in Kenya, the average monthly spend on clothing is about $15 (€13), while the average amount spent on SHC was about $11 (€10).

In **Ghana**, local manufacturers struggled to remain competitive in a market where weak buying power increased the demand for affordable SHC and cheap imports from China between the 1980s and early 2000s (Sarpong, et al., 2024). However, the local textile and clothing manufacturing industry has grown over the last decade, with rising output and increased employment. Government support, through policy reforms and tax incentives for the industry, has played a significant role in its rejuvenation. Yet, some of the main constraints include a lack of locally available cotton and other intermediate inputs, skills shortages, and access to finance (Waddington & Onumah, 2023). Given the demand for traditional print garments for special occasions, the SHC trade market can operate in parallel to the domestically produced clothing market, as both fulfil consumer demand (Waddington & Onumah, 2023). Approximately 49% of customers in a survey conducted by the Ghana Used Clothing Dealers Association (2024) reported that between 26% and 50% of the money they spend on buying clothes, is used to purchase SHCs, highlighting the demand for new clothing.

In **Mozambique**, several challenges led to the decline of industrial sectors, including fabrics and textile manufacturing. These include civil war, unstable economic policies, a lack of investment and modernisation of existing infrastructure, as well as international competition (Mate, 2024).

CONCLUDING REMARKS

While the rise of SHC imports has increased the competition of local clothing manufacturers in Africa, it is only one of the challenges that the industry faces. Several internal and external factors influence the performance of the local textile and clothing manufacturing industry. Not only are local industries often reliant on imported fabrics, but the industry also faces competition from imported fast fashion. High levels of poverty in many African countries remain one of the key determinants of demand for SHC. Without addressing this, the SHC industry will remain a valuable source of clothing for people in Africa, even if local clothing manufacturing activities expand. This is in line with the perception of African fashion professionals who assess the existence of second-hand garments to be less of a constraint to the strengthening of the domestic textile sector, as opposed to the lack of public and private investments, the lack of formal education opportunities in the industry, and the cost and availability of local textiles, to name a few (United Nations Educational, Scientific and Cultural Organization, 2023).

4. SOCIOECONOMIC IMPACT OF SHC TRADE

4.1. IMPACT IN THE EU27+

By prolonging the lifespan of garments, the SHC industry generates important direct contributions to the European economy through the collection, sorting, and retail of used clothing items in the EU27+ (**direct impact**). However, the economic footprint of the industry extends well beyond its direct economic activity.

To collect, sort, and sell used clothes to various customers, the SHC industry engages a wide range of third-party suppliers. These suppliers provide essential services and materials such as transportation, the provision of warehouse and office spaces, utilities, machinery, and other equipment. To provide these services, the SHC industry's suppliers in turn have their own suppliers, meaning that the industry stimulates substantial economic activity along its European supply chain (**indirect effect**).

Furthermore, the wages paid to employees in the SHC industry, and by suppliers along its supply chain in the EU27+, flow into the wider economy. Employees spend their earnings on goods and services across a variety of sectors, from housing and food to entertainment and healthcare. This expenditure contributes to generating additional economic value and supporting further employment in various industries (**induced impact**).

In this section of the report, we describe the socioeconomic contributions of the SHC industry in the EU27+, evaluated through the measures of GVA and employment. We explore how the industry not only supports jobs and contributes to economic output directly through its own operations—therefore estimating the size of the SHC industry in the EU27+—but also how it indirectly supports the wider economy through its procurement expenditure and induces broader economic benefits through the consumption spending of employees.

BOX 3: HUMANA AS A BLUEPRINT FOR THE SECOND-HAND INDUSTRY

In this study, the operations of Humana People to People, Sympany+, and connected organisations across the EU27+ and selected African countries (Ghana, Kenya, and Mozambique) serve as a foundational model to estimate the broader economic impacts of the SHC industry.

As the network operates in all stages of the SHC value chain, this ensures a comprehensive view of the SHC industry, assessing and comparing operations of actors in different stages of the SHC industry across borders. This setup specifically allows us to compare reported sales and purchase prices between different stages of the value chain to ensure that consistent price levels are reported along the value chain.

Importantly, despite operating as a not-for-profit entity, Humana engages in market mechanisms similar to for-profit organisations, including the generation and reinvestment of revenue. The primary distinction lies in the use of profits; rather than being distributed among shareholders or owners, all profits (after investments) are reinvested into community and social initiatives. This model underscores that the label "not-for-profit" does not imply an absence of financial transactions nor revenue generation, but rather a different purpose for the profits generated.

Furthermore, clothes are sold at market prices, independent of whether transactions occur between Humana-affiliated organisations or with external entities. This similarity in prices ensures that our economic modelling reflects consistent value transfer within the network, which can be scaled up to understand sector-wide dynamics. Additionally, it ensures that the prices used in our modelling of the SHC value chain are likely typical for organisations not part of the Humana network as well.

The unique structure of the surveyed organisations—covering the entire formal SHC value chain and reporting price levels typical for not-for-profit and commercial actors—allows us to analyse a consolidated model of operations, volumes, and prices along the value chain that are reasonably representative of the wider industry.

4.1.1. MODELLED SOCIOECONOMIC FOOTPRINT IN THE EU27+

DIRECT IMPACT

By analysing the direct impact of the SHC industry on GVA and employment, we can estimate the size of the industry in the EU27+. To do so, we analyse how many workers need to be employed to collect, sort, and sell used clothing items to cover the global demand for SHC from the EU27+ and estimate the GVA generated by these operations.

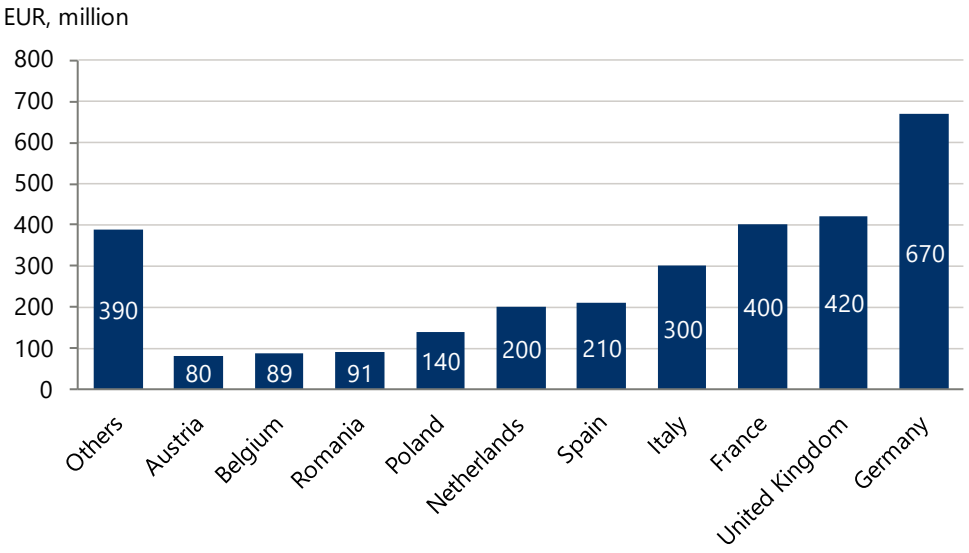
In 2023, we estimate that the SHC industry directly contributed €3.0 billion ($3.2 billion) in GVA to GDP in the EU27+. This is larger than the value-added output of the domestic clothing manufacturing industries in each EU27+ state apart from Italy in 2023.[27] This was split between profits (24%, or €700 million ($760 million)) and compensation of employees (76%, or €2.3 billion ($2.5 billion)). Large parts

[27] The clothing manufacturing industry (NACE code 14) in Italy generated value added output of around €5.7 billion ($6.2 billion) in 2023. The comparison with the industries in all EU27+ countries is based on Oxford Economics and various national statistical offices (2024).

of the industry's direct contribution to European GDP resulted from the retail sale of clothing items in the EU27+, accounting for an estimated 62% of GVA generated across the collection, sorting, and retail sale of SHC in the EU27+. Companies collecting and sorting used clothing items contributed 19% of the total GVA contribution each. Notably, with sorting facilities largely operating to break even, GVA in the sorting stage is exclusively generated through wages and salaries paid to employees, highlighting the labour-intensive nature of sorting operations.

Using volumes of used clothes collected, textile sorting capacities, and share of second-hand purchasers combined with total spending on clothes, we apportion the impacts across stages to countries in the EU27+. With an estimated €670 million ($725 million) and €420 million ($454 million) in GVA contributions to national GDP, respectively, the economies of Germany and the UK benefitted most from the SHC industry. This is likely driven by high disposable income and higher demand for SHC of consumers in both countries. The SHC industry also contributed significantly to the GDP in France and Italy, with €400 million ($433 million) and €300 million ($324 million), respectively.

FIGURE 29: GDP CONTRIBUTION OF THE SHC INDUSTRY BY COUNTRY IN THE EU27+, 2023[28]



Source: Oxford Economics, additional sources specified in the appendix.

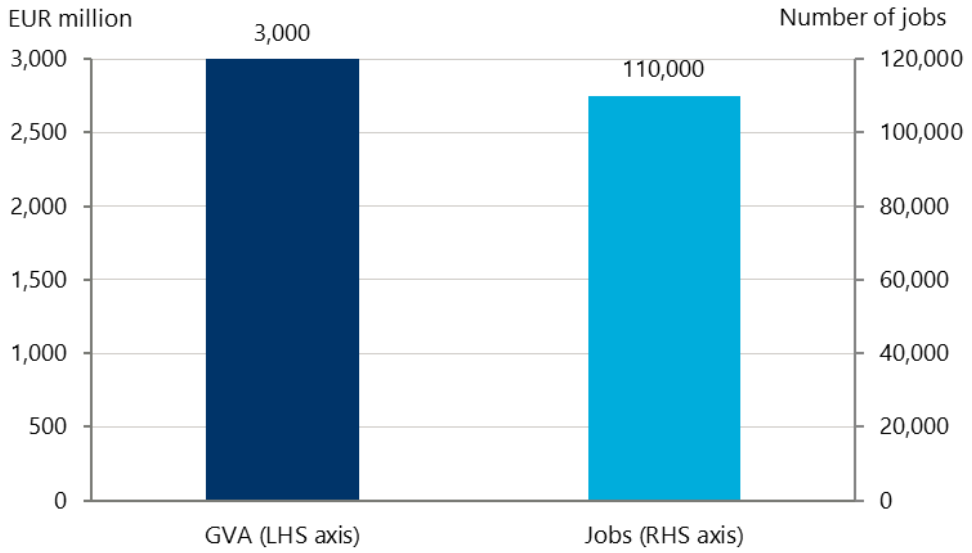
Alongside its GVA contribution, the SHC industry employed an estimated 110,000 jobs across the EU27+ in 2023. This is equivalent to the number of people employed within Germany's, France's, and Spain's wearing apparel manufacturing industries in 2021 combined.[29] Similar to the GDP contribution, most jobs were provided by retail stores, with 60% (67,000 jobs) of the industry's direct employment contribution. With 31% of the SHC industry's direct contribution to jobs, sorting facilities in the EU27+

[28] Due to missing data, no gross value added was apportioned to the second-hand clothing retail sectors in Bulgaria, Czechia, Croatia, Denmark, Greece, Hungary, Ireland, Lithuania, Slovenia, and Slovakia. While this may skew the results accordingly, this only affects countries outside the top 15 countries in the EU27+ with the highest expenditure on clothing and footwear and should not affect the ranking of countries shown in this graph.

[29] In 2021, around 34,000, 42,000, and 39,000 people were employed within the wearing apparel manufacturing sectors of Germany, France, and Spain, respectively (Eurostat, 2024d).

also employed a substantial amount of employment (35,000 jobs). The remaining 9% (11,000 jobs) were employed by organisations operating in the collection stage of the value chain.

FIGURE 30: DIRECT CONTRIBUTION OF THE SHC INDUSTRY TO GDP AND EMPLOYMENT IN THE EU27+, 2023



Source: Oxford Economics
Note: LHS = left-hand side, RHS = right-hand side.

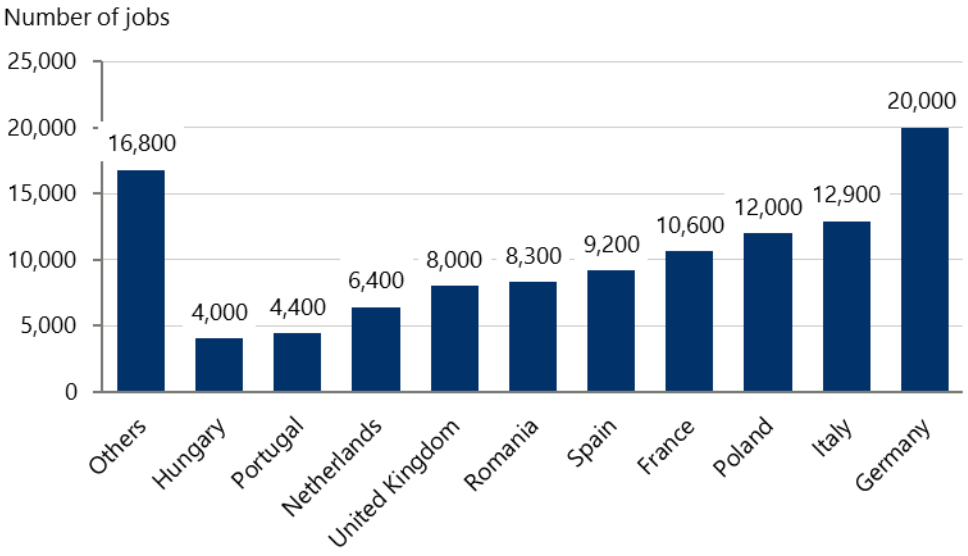
The second-hand industry contributed to employment across the entire EU27+. We estimate that most jobs were created in Germany (20,000 jobs), largely due to the sale of SHC in retail stores (71% of jobs created in Germany). This was followed by Italy and Poland, with around 13,000 and 12,000 jobs, respectively. According to our exploratory interviews, clothes are collected in many European countries, but with a focus on Western and Northern Europe due to the generally higher quality. While clothes are then sorted across the EU27+, a relatively higher share of sorting—compared to collection and retail of SHC—is conducted within Eastern and Southern Europe, reflecting lower labour costs in these regions. Finally, SHC are sold in many countries across the EU27+.

This is also reflected in our employment estimations: We estimate that the collection of clothes sustained most jobs within Northern and Western European countries[30] within the EU27+, with 62% of all jobs created by SHC collection companies within the EU27+. Sorting centres, on the other hand, facilitated more employment within Eastern and Southern European countries, with nearly 60% of the sorting stage's direct job contribution in 2023. Retail companies generated employment relatively

[30] According to the geographical regions defined by the UN Statistics Division (2024), the countries within the EU27+ belong to the following regions:
- Eastern Europe: Bulgaria, Czechia, Hungary, Poland, Romania, Slovakia.
- Northern Europe: Denmark, Estonia, Finland, Ireland, Latvia, Lithuania, Sweden, United Kingdom.
- Southern Europe: Croatia, Greece, Italy, Malta, Portugal, Slovenia, Spain.
- Western Europe: Austria, Belgium, France, Germany, Luxembourg, Netherlands.
While not explicitly mentioned be the UN Statistics Division, we consider Cyprus to be a part of Southern and Eastern Europe.

evenly across the EU27+, with an estimated 55% of retail jobs created in Northern and Western Europe, compared to 45% in Southern and Eastern Europe.[31]

FIGURE 31: EMPLOYMENT CONTRIBUTION OF THE SHC INDUSTRY BY COUNTRY IN THE EU27+, 2023



Source: Oxford Economics, additional sources specified in the appendix.

TOTAL IMPACT

The economic contribution of the SHC industry far exceeds its direct contribution to the European economy. Beyond its direct operations in collection, sorting, and retail, the industry buys goods and services from third-party suppliers and stimulates consumption spending of employees, thereby boosting economic activity and supporting employment across diverse sectors through the indirect and induced channels of impact.

Across all three channels, we estimate that the SHC industry supported a total contribution of €7.0 billion ($7.6 billion) to GDP in the EU27+ in 2023. To provide more context, this is equivalent to 10% of Lithuania's GDP in the same year[32]. This GVA contribution is particularly impressive as it results from the use of resources that would otherwise be considered "waste".

[31]Due to missing data, no employment was apportioned to the second-hand clothing retail sectors in Bulgaria, Czechia, Croatia, Denmark, Greece, Hungary, Ireland, Lithuania, Slovenia, and Slovakia. While these are all countries in the bottom half of clothing expenditure within the EU27+, the share of retail jobs created in Eastern and Southern Europe might be slightly underestimated.
[32] In 2023, Lithuania's GDP was €71.97 billion ($77,82 billion) (Statistical Office of the European Communities, Haver Analytics, Oxford Economics, 2024).

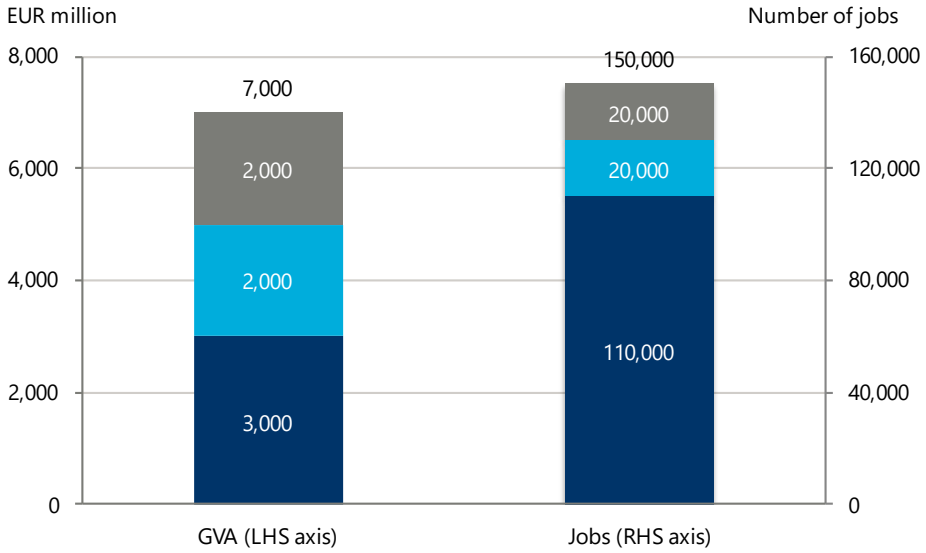
€7 billion

Total contributions stimulated by the SHC industry to the European economy in 2023.

The largest GVA contribution to GDP in the EU27+ was stimulated through the direct channel of impact. Of the SHC industry's total contribution to GDP in the EU27+, 43% (€3.0 billion/$3.2 billion) was supported by the economic activity of the industry's direct operations. Both the supply chain spending of companies collecting, sorting, or retailing SHC with their suppliers and the consumption spending enabled by the wages paid by the industry and its suppliers to employees based in the EU27+ stimulated an estimated €2.0 billion ($2.1 billion) (28% and 29% of the total contribution, respectively) to European GDP. This suggests that for every €1 ($1.08) directly generated by the SHC industry, a further €1.34 ($1.45) was supported elsewhere in the European economy.

In addition, we estimate that the SHC industry supported 150,000 jobs in the EU27+ in 2023. Around 75% of these jobs were generated by the industry directly (110,000 jobs), owing to the industry's labour-intensive sorting and retail activities. With 20,000 jobs each, the indirect and induced channels sustained 13% of the total contribution to employment, respectively. In total, the job multiplier effect supported by the SHC industry is 1.42, meaning that 420 jobs were sustained in the EU27+ for every 1,000 jobs directly employed in the industry.

FIGURE 32: TOTAL CONTRIBUTION OF THE SHC INDUSTRY TO GDP AND EMPLOYMENT IN THE EU27+, 2023



Source: Oxford Economics
Note: LHS = left-hand side, RHS = right-hand side. Totals may not add up due to rounding.

4.1.2. WIDER SOCIOECONOMIC IMPACT OF THE SHC INDUSTRY

The employment generated by the SHC industry has an impact that cannot be fully captured solely using economic variables. It also creates favourable social and societal consequences, as these jobs support the livelihoods of employees and their wellbeing, as well as bring much-needed opportunities to underprivileged social strata of European societies.

WORKFORCE PROFILES AND CONDITIONS IN THE INDUSTRY

Therefore, we also surveyed collection, sorting, and retail companies on a range of social variables to get a more thorough sense of the wider social impact that the SHC industry has in the EU27+. Surveyed companies were asked to report the number of employees, their gender, age, and educational background, and to score several given statements about workplace conditions and employee welfare on a scale of 1 (strongly disagree with the statement) to 7 (strongly agree with the statement).

The surveyed **collection companies** reported to employ roughly between 20-100 workers each, of which an average of little more than 75% are men. Most employees are aged 25-49 (70%) and have received (lower or higher) secondary education (85%). Whilst the work is physically demanding (all but one responding company scored the statement "The jobs performed by our employees are physically demanding" with a 5 or higher), it is considered very safe ("Workplace injuries occur frequently at our company" had an average score of 2). However, responses also indicated that the employees were offered rather few opportunities for skills development and career advancements left employees with only a moderate degree of autonomy ("Employees work with a high degree of autonomy" had an average score of 4.8).

Sorting companies reported employing roughly between 50-200 workers each. Most of these workers are women (69%), the majority are aged between 25-49 (80%), but there is also a significant share of workers aged 50-64 (12%). Three out of the four companies that provided the relevant information reported that most leadership positions (>50%) were also filled out by women. Moreover, they tended to agree with the statement "There is a low risk of unemployment in our organisation" (5.5 on average), whilst providing mixed responses regarding the physical demandingness of the work, and opportunities for skills development and career advancements—probably also depending on the work profile they had in mind.

The number of employees per **retail company** varied significantly. A retailer from Denmark was reported to only employ 11 people, whilst a Spanish retailer reported 394 employees. Employees are predominantly female (92% on average), but are, on average, underrepresented in leadership positions. A retailer from Portugal, for instance, reported that 85% of employees were female, yet filled out that women represented only 18% of leadership positions. Whilst most workers were aged 25-49 (70%), SHC retailers also seemed to provide significant employment opportunities for younger workers (aged 15-24), who made up an average of 11% of the workforce, and those aged 50-64 (17%). There is also substantial variance in the educational background of employees: 66% had received secondary education, 16% had undergone short-cycle tertiary education, 13% had tertiary education, and 5% had only gone to primary school. Companies seemed to agree that there was a low risk of unemployment for workers in their organisation (the relevant statement received an average score of 5.75), that there were opportunities for workers to develop their skills (average score: 5.25), and to advance in their careers (average score: 5). Statements regarding physical demandingness of work, frequency of workplace injuries, and workers' autonomy received mixed scores.

WORKFORCE PROFILES SUPPORTED VIA THE INDIRECT AND INDUCED CHANNEL

The SHC industry's socioeconomic impact extends beyond the impact it has on its own employees. Through procurement spending with external suppliers (indirect effect) and the wage-funded consumption spending of employees (induced effect), the SHC industry also sustains the employment of around 47,000 workers in the countries of the EU27+. These workers, on average, have social characteristics that are much more similar to the average characteristics of the total workforce across EU27+ economies compared to those directly employed in the SHC sector.

This is especially evident in the **gender split** of workers. Using survey data on the share of women employed in the collection, sorting, and retail stage in the Global North and weighting these figures by the total amount of workers employed in each stage, we estimate that 79% of employees of the SHC industry are women. Although this estimate should be interpreted with some caution due to the limited number of survey responses, it still provides a good orientation—especially because interviewees confirmed the results. This estimate highlights the SHC industry's above-average provision of employment opportunities for women, especially when compared to the 47% of women in jobs sustained by the industry's indirect and induced effects, which mirrors the percentage of women in the total workforce across EU27+ economies. Importantly, the industry did not only generate substantial employment opportunities for women, but also saw equal pay in 2023: according to the surveyed companies across the collection, sorting, and retail stage, there was no difference in pay between male and female workers.

Furthermore, the distribution of **education levels of workers** employed in the SHC industry differs from the distribution in the total workforce. Whilst around 38% of the total workforce in EU27+ countries have undergone some form of tertiary education (e.g. vocational training, university education, etc.), this figure stands at only 23% for workers within the SHC industry. A large majority of employees in the industry (77%) rather have a basic/intermediate educational background (e.g. lower secondary school, higher secondary school), compared to 60% in the overall workforce. This highlights that the SHC industry provides accessible job opportunities for which the formal education requirements are modest. Whilst many jobs in the industry require specific skills and/or significant knowledge of textiles and fashion trends, workers typically acquire these through on-the-job training. Prior vocational training or other forms of tertiary education are not normally required, which explains the below-average share of workers with such educational backgrounds.

The low formal educational requirements might also explain why a slightly above-average share of employees in the industry are aged 15-24 (10%, compared to 8% in the total workforce and in jobs supported via the industry's indirect or induced effect). Jobs in the SHC industry are accessible for young people more so than many other roles which require more extensive formal education and thus cater more towards older people. Another factor might be that some jobs are more physically demanding as the survey showed.

Table 5 summarises the main findings.

TABLE 5: CHARACTERISTICS OF WORKERS IN THE SHC INDUSTRY IN THE GLOBAL NORTH IN COMPARISON, 2023

Social Characteristics of Workers	Directly employed workers	Supported workers via the indirect/ induced effect	Total workforce of the EU27+ countries
Female	79%	47%	47%
Aged 15-24	10%	8%	8%
Basic/intermediate (primary/secondary) education	77%	60%	60%
Advanced/tertiary education	23%	39%	38%

Source: Oxford Economics based on ILO data on employment by sex, age, and education (ILO, 2024b)

SOCIETAL BENEFITS OF THE INDUSTRY

Apart from offering relatively more jobs to women, younger people, and people with lower education, the SHC industry creates many **jobs in less economically developed countries** of Eastern and Southern Europe. We estimate that 22,000 jobs, or 20% of the industry's direct employment contribution, are generated in Bulgaria, Romania, and Poland, which are the countries with the lowest GDP per capita in the EU in 2023 (Eurostat, 2024a). Moreover, we estimate that the industry also created jobs for around 9,200 people in Spain, which had the highest unemployment rate within the EU in 2023 (Eurostat, 2024b). Thus, the industry generates substantial employment opportunities in less prosperous regions of the EU27+.

In the Global North, the SHC industry paid an average compensation of employees of €20,000 ($21,626) per employee in 2023. Comparing the gross average salaries of employees paid by the industry in each EU country with the gross minimum wage in that country, we estimate that the SHC industry paid, on average, around 12% more than the respective domestic minimum wage.[33] The SHC industry therefore contributes to paying living wages for thousands of employees across Europe—even in jobs that require little or no formal education.

Another societal benefit is the effect of being employed on people's wellbeing, with strong links between subjective wellbeing and both employment (Gedikli, et al., 2022) and income (Cheung & Lucas, 2015). Through the economic activity created by the SHC industry itself and supported through supply chain spending and wage-financed consumption spending, we estimate that the improved life satisfaction resulting from being employed could be valued at up to €5.5 billion ($5.9 billion). Although this does not directly translate into economic activity, it shows the monetary value associated with the welfare benefit from employment in the SHC industry.

[33] Gross average salaries include wages and salaries, and social security contributions payable by the employee (or being retained by the employer on behalf of the employee). The calculation excludes EU countries without a minimum wage and the United Kingdom. Data on minimum wages is reported by Eurostat (2024c).

4.2. IMPACT IN THREE SELECTED AFRICAN COUNTRIES

4.2.1. MODELLED SOCIOECONOMIC FOOTPRINT IN GHANA, KENYA, AND MOZAMBIQUE

In this chapter, we will quantify the socioeconomic footprint of SHC imports from the EU27+ in three selected African countries: Ghana, Kenya, and Mozambique. This analysis does not encompass the impact of used clothes collected in the EU27+ that were first exported to other regions, such as Pakistan or the Middle East, and only subsequently exported to one of the studied countries. Moreover, our model does not include the informal side of the industry, as it relies on official industry statistics and is tailored to analyse formal economic operations. However, we build on the results of the Global Sustainability Model (GSM) to estimate the additional employment generated in the informal markets, acknowledging their significant role in the broader economic landscape of SHC in Ghana, Kenya, and Mozambique in Chapter 4.2.3.

Again, our economic footprint assessment captures the total socioeconomic contribution of SHC imports from the EU27+ in these countries, extending beyond only the direct activities stimulated by these imports. We also consider the indirect and induced impacts stimulated by SHC imports from the EU27+, which include the economic activities stimulated by the supply chain spending of wholesalers and formal retailers, as well as the consumption spending of workers employed in the industry and its domestic supply chain.

GHANA

As analysed in Chapter 3.3, Ghana imported 54,000 tonnes[34] of SHC directly from the EU27+ in 2023. This accounted for around 49% of total SHC imports in Ghana that year (UN Comtrade, 2024).[35] These clothes are first imported by wholesalers who then sell the clothes to other actors, including both other wholesalers and retailers. Wholesalers and retailers all contribute to GDP and employment by distributing and selling clothing imports from the EU27+ to their various customers. Chapter 2 provides a detailed description of the value chain and the activities performed by each actor.

Direct Formal Impact

The direct impact of SHC imports from the EU27+ in Ghana is substantial, with an estimated contribution of $35 million to the country's GDP in 2023. However, as this contribution does not capture the value added by the informal side of the SHC industry, the true GVA contribution is even larger. The formal contribution to the GDP of clothes directly imported from the EU27+ alone is already equivalent to around 8% of the GDP contribution of the domestic textile manufacturing industry.[36] This does neither include the GVA stimulated through imports from other regions nor the

[34] We did not adjust the imports for re-exports of total imported clothes, because there is not specific information on the re-export of EU27+imports available. Moreover, we do not believe this has a significant impact because the overall re-export is only a very small share, around 0.05% of imports (UN Comtrade, 2024).

[35] In 2023, Ghana imported a total of around 111,000 tonnes (UN Comtrade, 2024).

[36] We estimate that the gross value added of the textile manufacturing industry (NACE codes 13-15) was around $440 million in 2023. This is based on Ghana's GDP being around €72 billion in 2023 (International Monetary Fund, Haver Analytics, Oxford Economics, 2024) and assumes a similar the textile manufacturing industry's share of total GDP stayed constant between 2019 and 2023 (share: 0.61%, estimations of Oxford Economics, 2024).

informal economic activity of the industry, which interviewed experts believe to be more relevant than for the domestic textile manufacturing industry.

Similar to the industry in the EU27+, most of the GDP contribution in Ghana is generated through the wages and salaries paid to employees, accounting for 71% of the direct contribution to Ghana's GDP. Profits of formal wholesalers and retailers account for the remaining 29%.

Most of the formal GVA contribution in Ghana is generated by wholesalers, representing $29 million, or 85%, of the industry's direct contribution to GDP. Formal retailers generate the remaining part of $5.2 million (15%) of the industry's contribution to Ghana's GDP. However, this underrepresents the importance of the overall (i.e., informal and formal) second-hand retail space in Ghana. According to our quantitative survey and the workshops conducted with industry experts, wholesalers in Ghana only sell about 20% of imported second-hand garments meant for sale in Ghana to formal retailers, with the other 80% sold to informal retailers, such as market traders. When considering also informal retailers, the retail stage becomes much more important in adding economic value. If informal retailers were to generate similar levels of GVA as formal retailers, the total GVA contribution of SHC retailers in Ghana would be about $24 million.[37] Although this might not be a realistic scenario, it shows the potential of the informal part of the industry for Ghana's economy.

Next to its GVA contribution, SHC imports from the EU27+ prompted the employment of an estimated 14,000 formal workers in the SHC industry in Ghana in 2023.[38] This direct formal contribution was equivalent to about 2% of the formal employment in Ghana's wholesale and retail sector.[39] Strikingly, the formal job contribution within the industry is substantially larger than in both Kenya and Mozambique. However, the larger direct contribution to formal employment in Ghana is comparatively low when considering the higher share of formal employment in Ghana: according to the ILO, around 25% of workers were formally employed in the wholesale and retail sector (2015), compared to only 5% in Kenya (2019), and 7% in Mozambique (2015) (ILO, 2024a). Thus, the larger formal wholesale and retail industry in Ghana provides more formal employment opportunities for workers in the Ghanaian SHC industry, but simultaneously results in a relatively smaller informal sector, therefore generating fewer employment opportunities in the informal sector as compared to Kenya and Mozambique.

Moreover, interviewed stakeholders in Ghana were disagreeing on whether dedicated sorting takes place in Ghana. Industry experts argued that no facilities exist in Ghana solely to sort, as clothes are typically pre-sorted before being exported to Ghana. Some interviewees during our fieldwork, however, reported that they purchase clothes from such sorting centres. If we were to apply the same

[37] This calculation assumes that informal retailers generate the same amount of gross value added per kilogram of second-hand clothes sold. This potentially overestimates the gross value-added contribution of the informal retail sector, as informal retail profit margins may be lower.

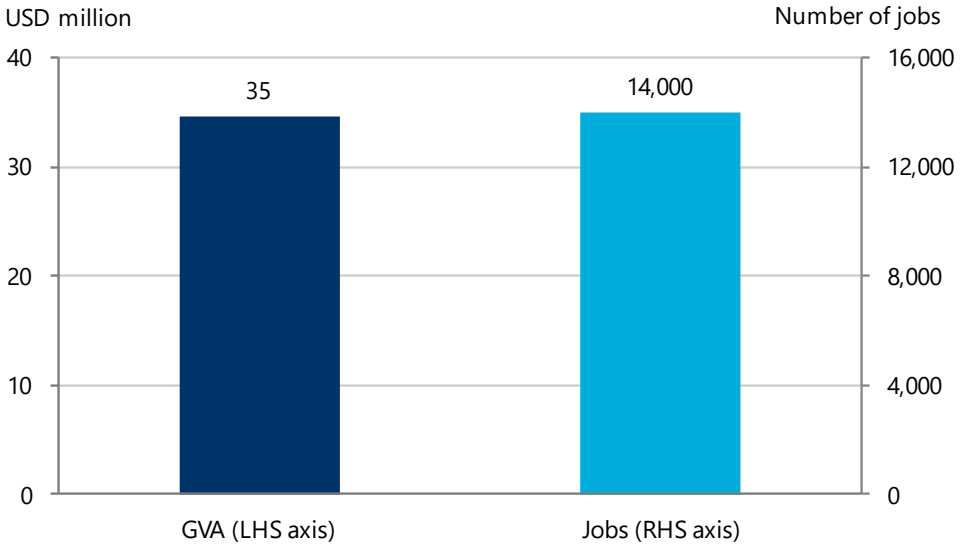
[38] This includes both permanent and temporary employees. We initially estimated the amount of permanent formal employees using survey responses, on-site interviews, and information from the data verification workshops. As data on casual/temporary employment was very inconsistent, we then applied the most recent ILO shares for temporary employment (Ghana: 10.8% in 2022) to estimate the total formal employment contribution (ILO, 2024c).

[39] In 2023, Ghana's labour force consisted of about 14.4 million people (World Bank, Haver Analytics, Oxford Economics, 2024). With around 18% of the labour force working in the wholesale and retail sector (NACE codes 46 and 47), and 25% of the wholesale and retail workforce being formally employed (as of 2015; (ILO, 2024a)), we estimate that formal employment in the sector was around 650,000 jobs in 2023.

share of employees working in wholesale and sorting as in Mozambique, the direct employment contribution would increase to about 24,000 formal jobs.

The SHC industry in Ghana is heavily characterised by informal employment active in the Ghanaian retail space. Most of these workers are informal retailers, such as market traders and their (informal) employees, but also tailors, repairers, and transporters. Therefore, the total jobs created through SHC imports from the EU27+ in the SHC retail sector far exceed the estimated formal jobs. An estimation of the total employment contribution will follow in Chapter 4.2.3.

FIGURE 33: DIRECT CONTRIBUTION OF SHC IMPORTS FROM THE EU27+ TO FORMAL GDP AND EMPLOYMENT IN GHANA, 2023



Source: Oxford Economics
Note: LHS = left-hand side, RHS = right-hand side.

Total Formal Impact

To import, distribute, and sell SHC, actors in Ghana's SHC industry buy goods and services from third-party suppliers, who in turn purchase inputs from other companies, stimulating GVA along the supply chain (indirect effect). The wage-funded consumption spending of employees in Ghana's SHC industry and its domestic supply chain further adds to the economic activity stimulated by the industry (induced effect).

Across its direct, indirect, and induced channels of impact, SHC imports from the EU27+ stimulated an estimated total $76 million contribution to GDP in Ghana in 2023—assuming procurement spending of formal wholesalers and retailers was spent in the formal economy. Thus, SHC imports from the EU27+ supported around 0.1% of Ghana's GDP in 2023 through its total formal GVA contribution.[40] The contribution of the entire SHC industry in Ghana will be higher, with imports from the EU27+ only accounting for 49% of all SHC imports in 2023.

The largest contribution to GDP was stimulated through the direct channel ($35 million), driven both by the profitability of wholesale and retail operations as well as the salaries paid by the industry to its

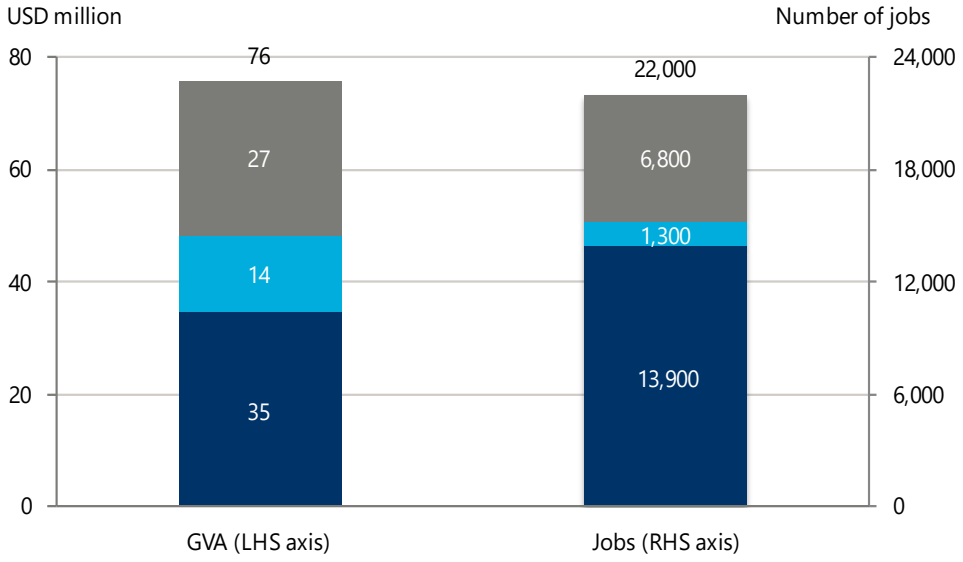
[40] In 2023, Ghana's GDP was around €67 billion (International Monetary Fund, Haver Analytics, Oxford Economics, 2024).

many employees. This was followed by the induced and indirect effects, with $27 million and $14 million, respectively. The importance of the induced channel reflects the high expenditure on wages and salaries in the industry that stimulates wage-funded consumption spending in other sectors of Ghana's economy. Overall, these impacts imply a GVA multiplier of 2.2, meaning that for every €1 in GVA generated formally by SHC imports from the EU27+, a further €1.20 contribution to Ghana's formal GDP is stimulated elsewhere in the economy.

22,000 jobs
in the formal economy created through second-hand clothing imports from the EU27+ in Ghana in 2023.

In addition, we estimate that the SHC industry supported 22,000 formal jobs in Ghana through direct, indirect, and induced channels by importing SHC from the EU27+ in 2023. Over 60% of these jobs were sustained by the industry itself (14,000 jobs), illustrating the labour-intensive nature of the SHC industry in Ghana. SHC imports from the EU27+ further supported an estimated 6,800 and 1,300 jobs through the induced and indirect channels, respectively. The relatively low share of jobs stimulated indirectly through the supply chain results from the high share of procurement within the industry itself (spending on SHC), as well as a higher share of expenditure on wages and salaries relative to procurement expenditure in Ghana. This could reflect the larger formal economy in Ghana, which might result in wholesalers and retailers employing more formal workers instead of "out-sourcing" tasks to informal workers who are not direct employees of the traders.

FIGURE 34: TOTAL CONTRIBUTION OF SHC IMPORTS FROM THE EU27+ TO FORMAL GDP AND EMPLOYMENT IN GHANA, 2023



Source: Oxford Economics
Note: LHS = left-hand side, RHS = right-hand side. Totals may not add up due to rounding.

KENYA

In 2023, Kenya imported 25,000 tonnes of SHC from the EU27+, which accounts for a relatively small share of total used clothing imports in Kenya (13%)[41]. However, as discussed in Chapter 3.2, Kenya imports large quantities of used clothing from the UAE, many of which could have originated from the EU27+. Similarly, a surveyed sorting centre in Oman reported to import used textiles from the EU27+ and subsequently exported SHC to Kenya. As it is not possible to track which clothing exports from the EU27+ to the UAE and other countries have been subsequently exported to Kenya, we are quantifying only the effect of those garments that have been directly imported from the EU27+ in Kenya.

Direct Formal Impact

SHC imports from the EU27+ in Kenya generate formal economic activity as well, contributing an estimated $9.2 million to Kenya's GDP in 2023. With the Kenyan wholesale and retail sector being highly informal[42], this formal contribution to GDP vastly underestimates the true economic activity generated through SHC imports from the EU27+. Within the formal industry, we estimate that both profits and wages and salaries paid to employees contribute roughly the same amount to GDP in Kenya. Compared to Ghana, where wages and salaries are more important, this reflects the lower formal employment within the sector, likely leading to fewer formal employees earning salaries and thus reducing overall salary expenditure.

In Kenya, wholesalers are the primary contributors to the GVA, generating $6.0 million or around two-thirds of the direct contribution to GDP. Formal retailers account for the remaining $3.2 million (34%). But again, the formal GDP contribution here underrepresents the total economic significance in the second-hand retail sector, given the large presence of informal retailers. If informal retailers were to generate similar levels of GVA as formal retailers, SHC imports from the EU27+ would generate an estimated $17 million GVA contribution with formal and informal retailers in Kenya. While this should be closer to the true value, it might overestimate the GVA contribution of informal retailers if informal traders have lower profit margins, for example. On the other hand, this might still underestimate the actual contribution of SHC imports from the EU27+, as it might not fully cover the wider SHC industry including transporters, tailors and repairers, and other ancillary businesses.

The industry also contributes a significant number of formal jobs through importing used clothes from the EU27+, with an estimated 3,600 formal positions in 2023. This is equivalent to about 2.1% of the formal employment in Kenya's wholesale and retail sector in 2023.[43] However, as the industry is even more informal compared to Ghana, the industry creates many more jobs by importing SHC from the EU27+ (see Chapter 4.2.3). Within the formal sector, wholesalers employ the most workers, accounting

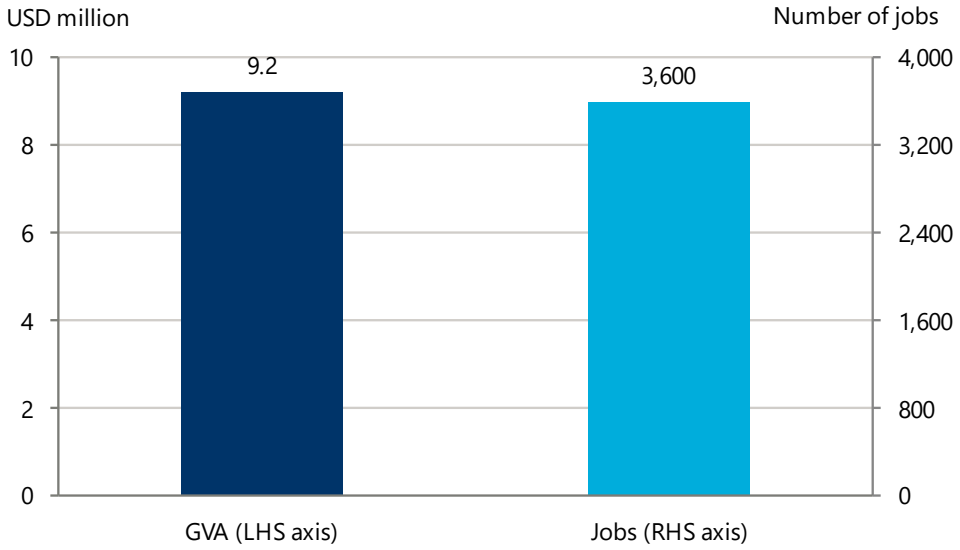
[41] According to UN Comtrade (2024), Kenya imported 198,000 tonnes of worn apparel in 2023. Re-exports of second-hand clothes are again not considered due to the reasons highlighted above, with re-exports being equivalent to 0.18% of second-hand clothing imports in Kenya in 2023.

[42] For instance, 95% of the sector's labour force is employed informally according to the ILO (ILO, 2024a).

[43] In 2023, Kenya's labour force consisted of about 20 million people (World Bank, Haver Analytics, Oxford Economics, 2024). With around 18% of the labour force working in the wholesale and retail sector (NACE codes 46 and 47), and 5.0% of the wholesale and retail workforce being formally employed (ILO, 2024a), we estimate that formal employment in the sector was around 190,000 jobs in 2023.

for 84% of the formal job contribution. However, with informal retail operations being labour-intensive, formal and informal retailers combined are likely to contribute far more jobs overall.

FIGURE 35: DIRECT CONTRIBUTION OF SECOND-HAND IMPORTS FROM THE EU27+ TO FORMAL GDP AND EMPLOYMENT IN KENYA, 2023



Source: Oxford Economics
Note: LHS = left-hand side, RHS = right-hand side.

Total Formal Impact

The industry's total contribution to the formal economy includes not only the direct activities but also the indirect and induced impacts arising from supply chain spending and wage-funded consumption. In 2023, the SHC industry's total GVA contribution resulting from EU27+ imports in Kenya was approximately $24 million, substantially influenced by all three channels. This formal contribution alone is equivalent to 2.3% of GVA generated in the Kenyan textile manufacturing sector, not accounting for the economic activity generated with the informal SHC industry. Moreover, the GVA contribution generated by the entire SHC industry in Kenya is substantially higher, with imports from the EU27+ only accounting for 18% of all SHC imports in 2023.

With $9.2 million or 38% of the total formal impact, the largest contribution to GDP was through the formal activities of the industry itself. This points to a vertically integrated industry which spends large parts of its procurement expenditure within the industry itself. For the SHC industry, this reflects the purchases of used clothing articles between the different stages of the value chain. The EU27+ import share of the industry further contributed $8.3 million and $6.6 million to the GDP in Kenya through the indirect and induced channels of impact, respectively. This implies that each $1 of direct GVA generated by formal enterprises dealing with imported SHC from the EU27+ stimulates an additional $1.6 in the Kenyan economy.

In addition, we estimate that SHC imported from the EU27+ in Kenya supported 6,300 formal jobs through all channels of impact in 2023. This trade stimulated most jobs through the direct channel (3,600 jobs), owing to the labour-intensive nature of the SHC industry. This was followed by the induced and indirect channels with 1,500 jobs and 1,200 jobs, respectively. This suggests a job multiplier effect of 1.7, with an additional 70 formal jobs stimulated in Kenya for every 100 persons formally employed in the country's SHC industry connected to EU27+ imports. Again, this underestimates the actual employment stimulated through the import of SHC from the EU27+, as around 95% of workers in the sector are employed informally.[44]

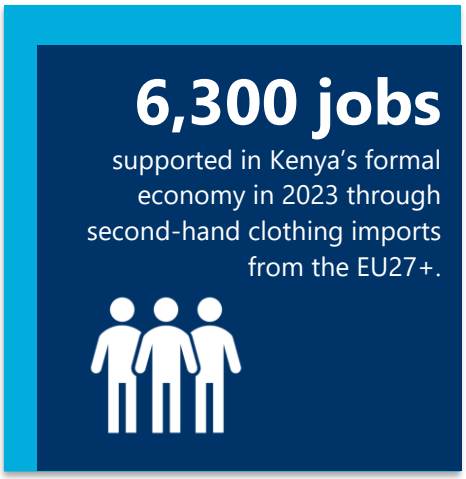
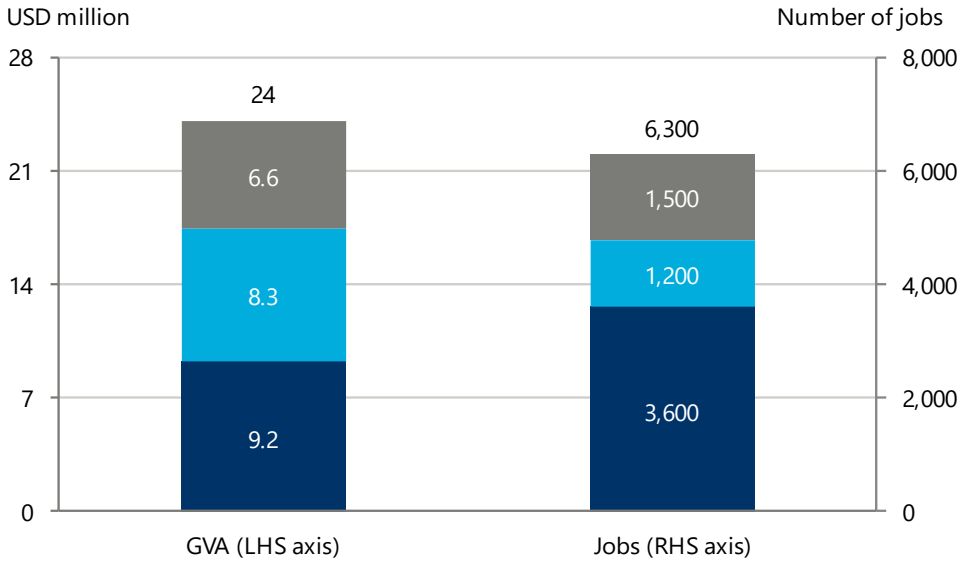


FIGURE 36: TOTAL CONTRIBUTION OF SECOND-HAND IMPORTS FROM THE EU27+ TO FORMAL GDP AND EMPLOYMENT IN KENYA, 2023



Source: Oxford Economics
Note: LHS = left-hand side, RHS = right-hand side. Totals may not add up due to rounding.

[44] As of 2019, Kenya's wholesale and retail labour force (NACE codes 46 and 47) is employed in the informal economy (ILO, 2024a).

MOZAMBIQUE

According to UN Comtrade (2024), Mozambique imported 2,700 tonnes of SHC from the EU27+ in 2023, accounting for around 18% of the total amount of used garments imported in Mozambique that year.[45] However, the same data show direct exports of EU27+ countries to Mozambique amounting to 7,600 tonnes.[46] As the quantity of clothes imported from the EU27+ by the companies taking part in our survey and fieldwork already exceeds the quantity of imports reported for Mozambique by UN Comtrade (2024) based on Mozambique's Institutio Nacional de Estatistica, we estimate the impacts in Mozambique based on SHC exports to Mozambique reported by EU27+ countries, as these seem to align closer with reality.

Direct Formal Impact

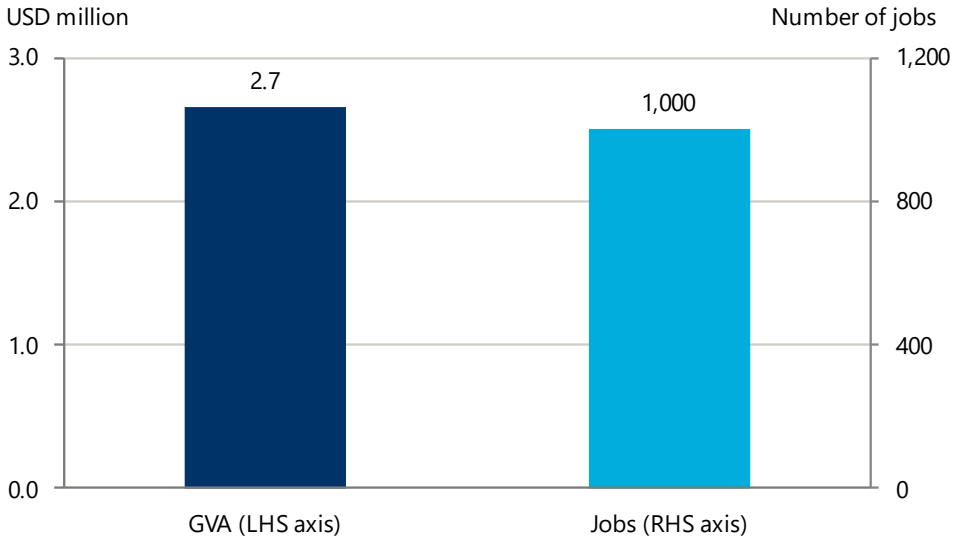
In 2023, SHC exports from the EU27+ to Mozambique generated a formal GVA contribution of $2.7 million to Mozambique's GDP. This formal direct contribution is equivalent to around 3% of the country's domestic textile manufacturing industry. With 61% of the direct GVA contribution, wages and salaries make up a larger part of this contribution compared to Kenya. However, our estimations for Mozambique are largely based on data received from ADPP Mozambique, a member of the Humana network, that is generally paying higher wages compared to its competitors. As ADPP Mozambique imports a large share of the quantities referenced above, this ratio is therefore representative of the direct impacts generated by exports from the EU27+ to Mozambique, but not for all second-hand trade in Mozambique.

Similar to the other two countries, although to a smaller extent, wholesalers—including sorting—generated the largest contribution to GDP, with an estimated $1.6 million or 59% of the direct contribution. Profits generated and salaries paid by formal retailers account for the remaining $1.1 million or 41%. Again, with the informal retail market playing an important role in Mozambique too, the total size of the SHC retail sector is much larger than the formal GVA contribution alone.

We estimate that by receiving SHC exported from the EU27+, the industry also directly contributed to 1,000 jobs in Mozambique in 2023. This is equivalent to about 1% of the formal workforce employed in Mozambique's wholesale and retail sector in 2023.[47] With 730 jobs, most of the workers were employed with wholesalers and connected sorting facilities, and the remaining 300 jobs were contributed by the formal retailers. Just as in Ghana and Kenya, this formal contribution underestimates the total employment facilitated in the SHC industry through used clothing exports from the EU27+ to Mozambique, as a large share of the labour force is informal.

[45] Total imports of SHC reported for Mozambique were around 14,800 tonnes in 2023, with no re-exports recorded (UN Comtrade, 2024).
[46] Total exports of SHC to Mozambqiue were around 50,000 tonnes in 2023 (UN Comtrade, 2024). Direct exports from the EU27+ therefore account for 15% of total SHC exports to Mozambique.
[47] In 2023, Mozambique's labour force consisted of about 14.6 million people (World Bank, Haver Analytics, Oxford Economics, 2024). With around 9.0% of the labour force working in the wholesale and retail sector (NACE codes 46 and 47), and 6.5% of the wholesale and retail workers being formally employed (as of 2015) (ILO, 2024a), we estimate that formal employment in the sector was around 86,000 jobs in 2023.

FIGURE 37: DIRECT CONTRIBUTION OF SECOND-HAND IMPORTS FROM THE EU27+ TO FORMAL GDP AND EMPLOYMENT IN MOZAMBIQUE, 2023



Source: Oxford Economics
Note: LHS = left-hand side, RHS = right-hand side.

Total Formal Impact

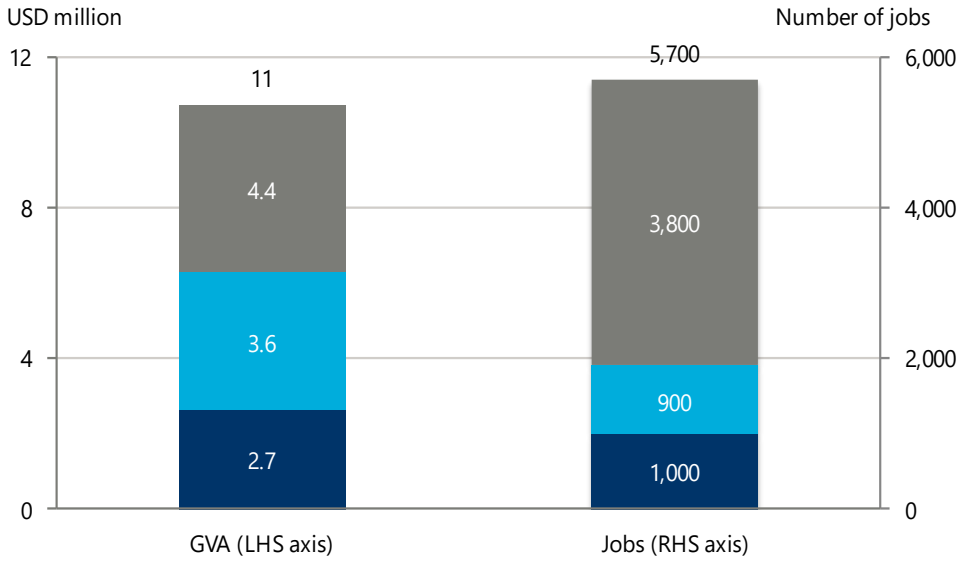
Across the direct, indirect, and induced channels of impact, SHC exports from the EU27+ to Mozambique supported an estimated total GVA contribution of $11 million[48] to Mozambique's GDP in 2023. In contrast to Ghana and Kenya, the largest contribution was stimulated through the induced channel (41%), followed by the indirect (34%) and direct (25%) channels. This difference reflects the comparatively high salaries paid by companies responsible for large shares of the EU27+ imports in Mozambique, leading to an increased contribution through the wage-funded consumption expenditure of employees of the SHC industry. The importance of induced and indirect effects results in a GDP multiplier of 4.0, meaning that the SHC industry supported a further $3 in domestic GVA for every $1 generated by the industry connected to the EU27+ itself.

We estimate SHC exports from the EU27+ to Mozambique also sustained 5,700[49] formal jobs through all three channels of impact. This suggests that SHC exports from the EU27+ alone stimulated around 1% of all formal employment in Mozambique in 2023. As with the GVA contribution, most jobs were stimulated through the induced channel (66%), followed by the direct (18%) and

[48] Using the reported import data for Mozambique, we estimate that the second-hand clothing industry stimulated a $3.9 million gross value-added contribution to formal GDP in 2023.
[49] Using the reported import data for Mozambique, we estimate that the second-hand clothing industry supported 2,100 jobs in Mozambique through all three channels of impact.

indirect (16%) channels. This indicates a job multiplier effect of 5.6, resulting in an additional 4.6 formal jobs in Mozambique for every individual formally employed in the nation's SHC industry connected to the EU27+ direct exports to Mozambique. Again, this reflects the high consumption expenditure in the consumer economy facilitated through relatively high wages and salaries paid to employees handling SHC from the EU27+.

FIGURE 38: TOTAL CONTRIBUTION OF SECOND-HAND IMPORTS FROM THE EU27+ TO FORMAL GDP AND EMPLOYMENT IN MOZAMBIQUE, 2023



Source: Oxford Economics
Note: LHS = left-hand side, RHS = right-hand side. Totals may not add up due to rounding.

4.2.2. TAX REVENUES STIMULATED IN GHANA, KENYA, AND MOZAMBIQUE

SHC imports from the EU27+ not only support significant GVA and employment contributions, but also stimulate tax payments to the governments of Ghana, Kenya, and Mozambique. Next to the taxes paid by formal wholesalers and retailers on profits, salaries, and so on (direct impact), the industry also stimulates tax payments with its suppliers (indirect impact) and in the consumer economy (induced impact).

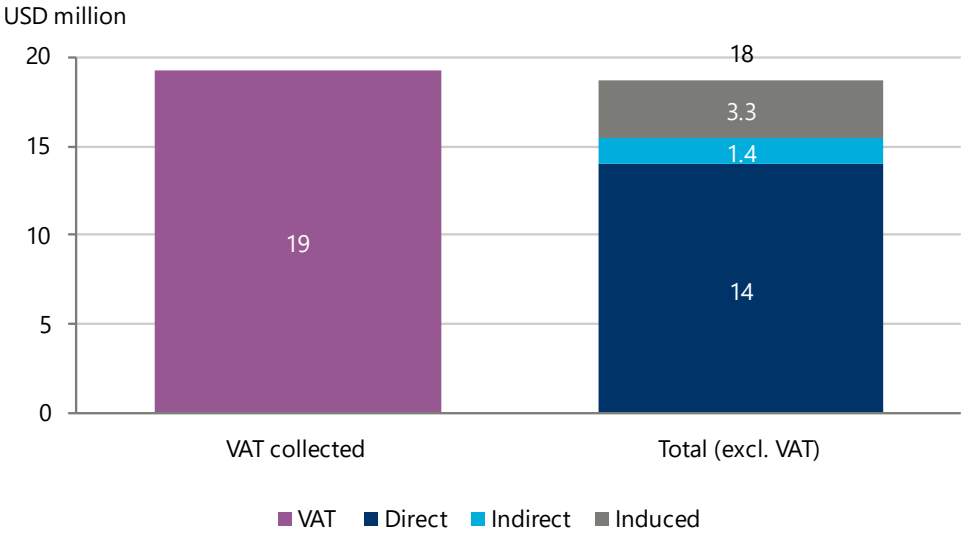
In the case of SHC imports, governments in Africa particularly stand to benefit from levying import duties. Import duties are typically an ad valorem tax. In Ghana, a 20% levy is charged on all imports of finished goods, while Mozambique also levies a 20% import duty on SHC, and Kenya levies a rate of 35% or $0.4/kg whichever is higher. Moreover, in Mozambique, a surcharge of roughly $0.39/kg was applied to SHC imports in 2023. In addition to import taxes, SHC traders pay business license fees among other statutory payments to the governments in most African countries while VAT is also levied on imports.

Through importing clothes from the EU27+, the SHC industry generated estimated tax revenues of $14 million in Ghana, mostly through paying import duties on the imported clothes (65% of the direct tax contribution). However, the industry also paid around $4.8 million (or 35% of the direct tax contribution) in corporate income taxes, labour taxes, property taxes, and other taxes to Ghana's treasury. SHC imports from the EU27+ further stimulated tax payments in other parts of the economy

through its supply chain spending and the wage-financed consumption spending of its employees. This stimulated government revenue of around $4.7 million in 2023.

Moreover, the formal part of the industry also collected significant amounts of VAT payments both for the import and sale of SHC imported from the EU27+. The VAT collected in Ghana even surpassed the total contribution to tax revenues stimulated by the industry, reaching $19 million in 2023. Combined, the total tax revenue stimulated through all three channels of impact and the VAT collected through the import of SHC from the EU27+ accounts for 0.4% of the total tax revenue collected in Ghana in 2023.[50]

FIGURE 39: TAXES PAID AND COLLECTED IN GHANA RELATING TO SHC IMPORTS FROM THE EU27+, 2023



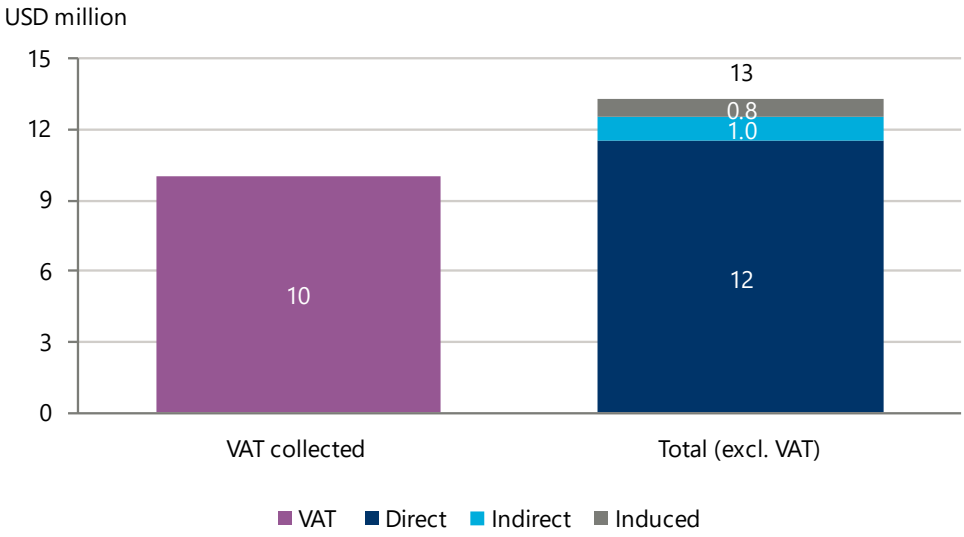
Source: Oxford Economics
Note: Totals may not add up due to rounding.

Similarly, the SHC industry also stimulated tax revenues in Kenya by importing SHC from the EU27+. Through all three channels of impact, we estimate that SHC imports from the EU27+ supported tax payments of around $13 million and the collection of $10 million in VAT payments. With 86% of tax payments supported through all three channels, the direct impact is again responsible for most tax payments stimulated. Most taxes paid by the industry itself were in the form of import duties, with an estimated $9.2 million[51], or 80%, of the direct impact on government revenue. Corporate income taxes contributed another $1.3 million, and the remaining other taxes, such as labour and property taxes, were $1.0 million. The tax revenue stimulated by SHC imports from the EU27+ through the direct,

[50] Based on Ghana Revenue Authority (2023), total tax revenue collected in Ghana was GHS113 billion in 2023, or $9.9 billion using a period average exchange rate of 11.42 (Oxford Economics based on International Monetary Fund\Haver Analytics, 2024).
[51] This results in collected import duties lower than $0.4 per kg. During our interviews, stakeholders revealed that the quantity or weight of imports may not be entirely captured during imports, for example due to containers being weighed instead of single clothing bales. This might result in deviations from the official level of import duties.

indirect, and induced channels of impact and the VAT collected in Kenya in 2023 is equivalent to 0.1% of the tax revenue collected in Kenya in the fiscal year 2022/23.[52]

FIGURE 40: TAXES PAID AND COLLECTED IN KENYA RELATING TO SHC IMPORTS FROM THE EU27+, 2023



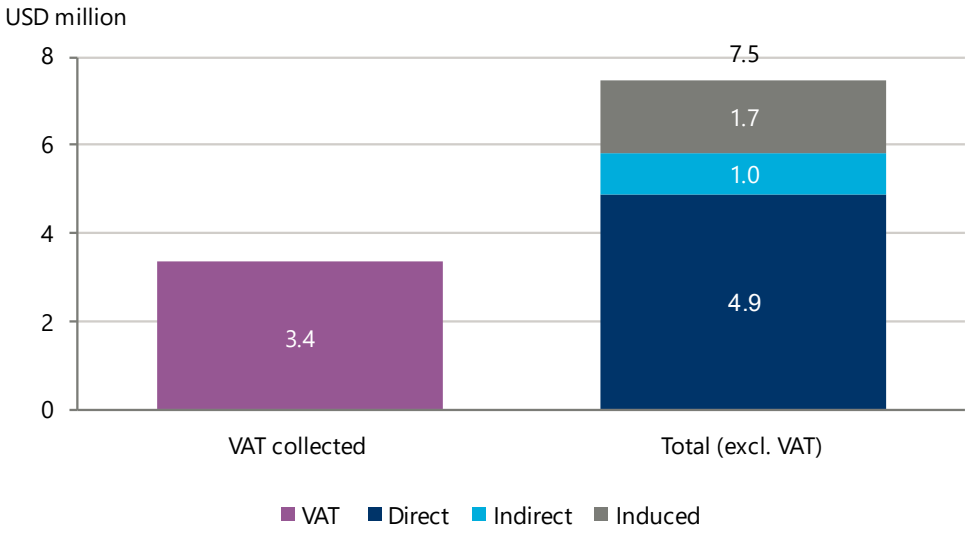
Source: Oxford Economics
Note: Totals may not add up due to rounding.

Finally, SHC imports from the EU27+ in Mozambique also stimulated tax payments to the country's treasury. Again, the most important channel of impact was the direct impact, with $4.9 million or 57% of the total tax contribution. In contrast to the other two countries, the surcharge applied to SHC imports was the most important factor, with $3.0 million. Import duties and surcharges combined were responsible for 90% of the industry's direct tax payments resulting from the exports of second-hand garments from the EU27+. Combining all three channels, the trade stimulated an estimated government revenue of $7.5 million in 2023. Moreover, sale of the SHC imports from the EU27+ resulted in the collection of $3.4 million in VAT payments in Mozambique in 2023. The total stimulated and collected tax revenue combined is equivalent to 0.2% of Mozambique's tax revenue in 2022.[53]

[52] Based on Kenya Revenue Authority (2024), total tax revenue collected in Kenya was KES2.2 trillion in FY 2022/23, or $16 billion using a period average exchange rate of 137.27 (Oxford Economics based on International Monetary Fund\Haver Analytics, 2024).

[53] Based on the Mozambique Revenue Authority, the total tax revenue collected in Mozambique was MZN280 billion in 2022 (Autoridade Tributá Ria de Moçambique, 2023), or $4.4 billion using a period average exchange rate of 63.90 (Oxford Economics, 2024).

FIGURE 41: TAXES PAID AND COLLECTED IN MOZAMBIQUE RELATING TO SHC IMPORTS FROM THE EU27+, 2023



Source: Oxford Economics
Note: Totals may not add up due to rounding.

With 0.1-0.4% of total tax revenue stimulated through SHC trade with the EU27+ in all three countries, the related industry contributes substantially to domestic tax revenues. Considering the highly informal nature of the wholesale and retail sectors, with up to 95% of the labour force of the sector being informally employed in Ghana, Kenya, and Mozambique, the tax revenue resulting from labour taxes, for example, could increase substantially in a more formalised economy.

4.2.3. WIDER SOCIOECONOMIC IMPACT OF THE SHC INDUSTRY

INFORMAL EMPLOYMENT – ESTIMATION AND DISCUSSION

In all three countries, a substantial amount of the labour force is employed informally. According to the ILO, the share of informal labour in the wholesale and retail sectors (NACE codes 46, 47) is 75% in Ghana, 95% in Kenya, and 93% in Mozambique (ILO, 2024a).[54] Therefore, the formal employment described in the previous chapter does not capture the full contribution of the SHC industry to employment opportunities in these countries, with the informal employment much larger than the formal one in all three countries. To account for the large share of informal employment consistently, and because the estimations of the share of informality in the countries differed widely, we have used the ILO data on formal and informal employment in the broader wholesale and retail industry (ILO, 2024a) to estimate the informal employment supported by SHC trade from the EU27+. Consequently, we adjusted the direct formal effect with the share of formal employment in total employment within the sector.

[54] Latest data on formal versus informal employment within the wholesale and retail sector was for 2015 in Ghana, 2019 in Kenya, and 2015 in Mozambique.

In 2023, we estimate that the employment of around 43,000 informal workers in Ghana was stimulated by SHC imports from the EU27+ within the SHC industry. This would result in the employment of 1.05 people—including both formal and informal workers—per tonne of imported SHC directly within the SHC industry.

Compared to our estimates for Kenya and Mozambique, this is a fairly low number. Potentially, this could be explained through our assumption of a comparatively high share of formal employment in Ghana based on ILO (2024a) data. While the formal employment share within the overall wholesale and retail industry is 25%, the same share might be much lower within the SHC industry considering the large informal markets in Ghana, such as the Kantamanto market in Accra, and the informal nature of the sector described during our interviews. According to Ricketts & Skinner (2019), for example, Kantamanto market alone sees up to 30,000 people engaged (informally) in the trade of SHC. According to local experts, the number of used clothing traders and workers along the wide value chain could be above 500,000 (Avorkor & Tiziana, 2022). If we were to apply a higher degree of informality, like in Kenya (95%), the SHC industry would support the employment of up to 5.12 workers per tonne of imported SHC from the EU27+ in Ghana, resulting in the creation of up to 280,000 formal and informal workers through the import of SHC from the EU27+.

In Kenya, we estimate that the direct employment of around 68,000 informal workers was sustained within the SHC industry by importing second-hand garments from the EU27+ in 2023. This breaks down to the employment of 2.83 formal and informal workers for every tonne of SHC imported from the EU27+.

Finally, we estimate that in Mozambique, SHC exports from the EU27+ facilitated the direct employment of around 15,000 informal workers in 2023. The lower number of informal jobs created compared to Ghana and Kenya results from the lower import volume in Mozambique (see Chapter 3). Per tonne of imported SHC from the EU27+, the trade generated employment for around 2.08 formal and informal workers.

Notably, our estimates are lower than that of previous studies. According to the Swiss Academy for Development (1997) and Feyertag (2024), overall SHC imports from around the world stimulated the employment of 4.3 workers per imported tonne in Ghana. Feyertag (2024) further describes the employment supported by the SHC industry in Kenya to range from 0.8 (USAID, 2017) to 10.9 per tonne of imported clothing (Institute of Economic Affairs Kenya, 2021), while Diamond (2023b) estimates an average of 7.6 per tonne based on different studies. However, Diamond (2023b) does not include the USAID (2017) study in this estimation, for example, which would reduce the estimated average accordingly. Calculating an average based on estimates for other countries, Feyertag (2024) also estimates that 6.5 workers were (formally and informally) employed per tonne of imported SHC in Mozambique.

TABLE 6: ESTIMATES OF JOBS PER TONNE OF SHC IMPORTS

Country	Our estimates	Other literature
Ghana	1.05	4.3
Kenya	2.83	0.8 – 10.9
Mozambique	2.08	6.5

Source: Oxford Economics, Feyertag (2024)

There are two important reasons for these differences. First, with the SHC industry being described as highly informal during our interviews, and likely being informal to a higher degree than the overall wholesale and retail space, we predict the resulting estimates to be conservative. As described earlier, assuming a higher degree of informality in Ghana, for example, led to substantially more employment generated by the industry. Similarly, if the (informal) SHC industry is characterised by a higher share of temporary workers compared to the overall wholesale and retail sector, we underestimate the total employment in the industry facilitated by SHC imports from the EU27+.

Moreover, we use a different methodology than previous literature, capturing importing and non-importing wholesalers, formal and informal retailers, and those directly employed with these traders, both formally and informally. Therefore, we focus on the direct employment facilitated by SHC imports from the EU27+. Other literature, however, further includes some indirect employment supported by the SHC industry as part of the SHC industry. Next to importers, wholesalers, and formal and informal retailers, this includes ancillary workers such as washers, tailors, and loaders and unloaders (Diamond, 2023b).

BOX 4: DIFFERENCES IN EMPLOYMENT ESTIMATIONS – INSTITUTE OF ECONOMIC AFFAIRS KENYA COMPARED TO OXFORD ECONOMICS

In a recent study, the Institute of Economics Affairs Kenya (2021) has analysed the total employment generated by the SHC industry in Kenya in 2019. Based on a survey conducted by Kenya National Bureau of Statistics, they estimate that the SHC industry employed around 2,000,000 people, including both formal and informal workers. In contrast, if we were to assume that SHC imports from other parts of the world had the same employment impacts as imports from the EU27+, our results suggest that around 560,000 workers were employed within the SHC industry in Kenya in 2023.

This difference is likely explained by a difference in methodologies. The Institute of Economics Affairs Kenya (2021) explains that their estimate of two million people includes people employed in other sectors, such as farming, as the trade with SHC may be seasonal. Based on the survey answers, the estimate of two million workers includes any person who has at some point traded SHC within a year, even if their primary employment was supported by a different industry. While we also include seasonal, temporary workers in our estimates, we aim to exclude workers who are primarily employed in a different industry and only earn some additional income through the trade with SHC.

Additionally, the previous study includes ancillary employees who assist in offloading and transporting goods. This specifically includes transportation services procured from transportation firms. To be consistent with our methodology, we exclude such ancillary workers as their employment is supported through the indirect channel of impact.

TABLE 7: TYPE OF EMPLOYEES INCLUDED IN EMPLOYMENT ESTIMATES

Type of employees	Oxford Economics	Institute of Economic Affairs Kenya
Formal workers permanently employed in the SHC industry	Included	Included
Informal workers permanently employed in the SHC industry	Included	Included
Formal and informal temporary workers employed directly within the SHC industry	Included	Included
Formal and informal workers primarily employed in another industry	Not included	Included
Ancillary workers	Not included	Included

As a result, our estimates are not directly comparable with that of previous literature. Based on data collected during our quantitative survey, fieldwork, and data validation workshops, we capture formal workers permanently employed within the industry, whose employment is facilitated by SHC imports from the EU27+. Moreover, we capture temporary employees and informal workers directly employed within the SHC industry. However, we do not include unpaid family members who are part of the business, workers who are primarily employed in another industry, and ancillary workers, such as unloaders and transporters, in our estimates—as shown exemplarily in Box 4. With ancillary workers being explicitly included in other literature, it is obvious that the resulting estimates are considerably larger. Similarly, studies that include workers who are primarily employed in other industries and only earn some additional income through SHC trade also result in higher employment estimates.

We do not include ancillary workers in our estimates for two reasons: First, we cannot account for a potential double counting of jobs. Loaders and unloaders, for example, will likely work for multiple second-hand traders. If we would, for example, estimate the number of loaders und unloaders contracted per wholesaler and retailer, we would potentially count a single transporter several times. Furthermore, we do not include ancillary workers as these are generally not considered part of an industry. While loaders and unloaders, for example, play an important part in the trade of SHC, there is no clear indication that they work exclusively for SHC traders. During our interviews and data verification workshops, unloaders were described as informal workers who were contracted on an as-needed basis. Unloaders might also work for traders importing other goods when not being contracted by SHC traders. Thus, both loaders and unloaders should rather be considered as (informal) workers as part of the shipping or transport industry.

A similar argument can be made for transporters: while transporters are an important part of informal second-hand markets whose employment gets indirectly supported by payments of SHC traders, they might also transport other goods and are not necessarily inherent parts of the SHC industry. However, literature such as Ricketts and Skinner (2019) describes transporters ("head porters") being the "backbone" of SHC markets that only transport SHC. Therefore, at least a part of the transporters could be considered part of the industry. While their employment is technically supported through the spending on (transportation) services, i.e., the indirect channel of impact, and hence would not be considered to be part of the industry itself (direct impact, see Chapter 4.2.1), many of these workers' income is exclusively being paid by SHC traders. Such informal ancillary workers whose income is entirely—or at least, largely—dependent on the SHC trade may therefore be seen as direct, informal employees of the industry, and are potentially not captured in our estimates. As a result, this study provides a lower-bound estimate of the combined formal and informal employment generated by SHC imports from the EU27+.

TABLE 8: ECONOMIC CONTRIBUTION OF THE SHC INDUSTRY RELATING TO SHC IMPORTS FROM THE EU27+ ACROSS CHANNELS AND METRICS, 2023

	Ghana	Kenya	Mozambique
Total SHC imports	111,000 tonnes	198,000 tonnes	50,000 tonnes
SHC imports from EU27+	54,000 tonnes	25,000 tonnes	7,600 tonnes
Direct GVA	$35 million	$9.2 million	$2.7 million
Total GVA	$76 million	$24 million	$11 million
Direct formal jobs	14,000	3,600	1,000
Total formal jobs	22,000	6,300	5,700
Direct informal jobs	43,000	68,000	15,000
Direct tax revenue (incl. VAT)	$33 million	$22 million	$8.3 million
Total tax revenue (incl. VAT)	$38 million	$23 million	$11 million

Note: Mozambique import figures are based on the exports to Mozambique reported by the EU27+.
Source: Oxford Economics

WORKFORCE PROFILES

The industry provides a substantial amount of work opportunities for women. According to the Ghana Used Clothing Dealers Association, 53% of retailers in Ghana surveyed are women. Whilst this is a significant share, it is not above the total share of women in the Ghanaian workforce across industries, which the ILO (2024b) reports to be at 54%. Not only does the industry generate employment opportunities for women, but also equally well-paid positions for women: according to our survey conducted with wholesalers and retailers across the three countries, there was no difference in pay between formally employed male and female workers.

Interviewed formal retailers in Ghana and Kenya reported equal representation of males and females among their employees, however, employment opportunities in Mozambique are mostly for women. Interviewed wholesalers and importers indicated that most of their workers are males (approximately 60% of workers), due to a large share of the work being loading and offloading heavy bales. The workers of interviewed importers and wholesalers are mostly between the ages of 26 and 45 (61.5%) or 18 and 25 (33.3%).

The industry also provides several opportunities for the youth, with 30% of interviewed retailers in Ghana being younger than 30 and 35% being between the ages of 31 and 40 years (Ghana Used Clothing Dealers Association, 2024). Informal retailers reported even higher shares of opportunities for women and the youth in Ghana, Kenya, and Mozambique, with 77% of the interviewed informal retailers being women, and approximately 70% younger than 45.

WORKING CONDITIONS

Surveyed wholesalers and retailers in Ghana, Kenya, and Mozambique also reported safe working environments by disagreeing with the statement "Workplace injuries occur frequently at our company" (answers ranged from 1 to 3 on a 7-point Likert scale). Interviewed traders also argued that they are audited annually and therefore comply with domestic health and safety requirements. While this suggests that the formal industry provides a relatively safe working environment, some interviewees questioned whether this applies to the informal side of the sector as well. During the on-site interviews, however, it was observed that the working environment seemed clean and safe.

Most of the interviewed participants in the formal value chain reported that there are not many opportunities for upskilling or job progression. Yet, isolated cases of success stories were reported. For example, a retailer in Ghana mentioned a former employee who started as a clerk in her organisation, transitioned to an informal trader, then progressed to having a formal shop, and finally became a wholesaler. This showcases the large potential the informal sector can have for the overall economy.

Some of the work opportunities associated with the industry are more prone to precarious work conditions, such as those of the female head porters in Ghana. Commonly referred to as the "kayayei", these head porters are often young women with little to no education who migrate to urban nodes in search of employment (Kanwetuu, et al., 2023). Providing porterage services in the markets of Ghana, including the SHC markets like Kantamanto, these female porters are often subjected to abuse and poor working and living conditions according to one interviewee. Given the informality of their work, they do not benefit from minimum wage and other protections provided in local labour laws (Foundation for Women's Health, Research & Development, 2018).

> ***"One female employee rose from administration to sales manager based on her ability to price items so that we realise more profit on each bale"*** – retailer in Ghana

While some of the "kayayei" can be as young as 10 years old (UNFPA, 2020), most interviewees argued that child labour was uncommon to non-existent in the studied African countries due to regulations such as free, mandatory primary and secondary education. Interviewees agreed that adolescent family members can help with the respective businesses, yet it does not necessarily represent child labour if

children only participate in work that does not interfere with schooling and has no adverse health effects (ILO, 2024d). No children were observed working in the markets that were visited to conduct customer and informal retailer interviews. However, one of the interviewees mentioned that youths often assist with the transport of clothes throughout the informal markets. In written survey responses, formal and informal retailers almost unanimously reported that they actively worked to prevent child labour in their businesses and supply chains. Nevertheless, there seem to be rare outliers, with one informal retailer in Ghana openly admitting to employing two children under the age of 14, working 50 hours per week.

INCOMES EARNED

The income earned through employment created by the industry is an important lifeline and allows families to afford food and other necessities, as well as send their children to school according to the experts and customers interviewed in Ghana, Kenya, and Mozambique. Some literature points to (informal) retailers earning high enough wages to support their families (Watson, et al., 2016), while other literature questions whether informal workers earn "living wages" in the SHC industry (Ricketts & Skinner, 2019). For most of the interviewed informal traders (95%), selling SHC is their only source of income. Informal retailers in Kenya reported that between four and ten family members depended on their income. Mozambican informal retailers reported this range to be between one and seven, and Ghanaian informal retailers had between two and six family members depending on their income. Since several interviewed informal retailers reported more than five dependent family members during our fieldwork in all three countries, some might have even more family members depending on them.

Based on the compensation of employees and employment facilitated by SHC imports from the EU27+, we estimate that the average monthly compensation of employees in Ghana Kenya, and Mozambique were around $150, $110, and $130 per formal employee, respectively, in 2023. However, this includes temporary employees working for less than six months for an employer. Kenya has a particularly high share of temporary employees, which reduces the average compensation of employees. During our data validation workshops, experts estimate that permanent full-time employees of formal wholesalers and retailers earned monthly average wages of around $180 in Kenya, $160 in Ghana[55], and $160 in Mozambique.

These figures suggest that average salaries and wages in the formal SHC industry in all three countries were well above the international poverty line of $2.15 per day (around $65 per month) (World Bank, 2022).[56] Regarding the informal sector, most of our interviewees reported SHC traders to earn enough money to send their children to school and pay for other necessities. This suggests that the SHC

[55] According to the Ghana Used Clothing Dealers Association (2024), 60% of importers earn an annual income of less than GHS30,000 ($2,185) while most retailers (73.2% of survey respondents) report an annual income of between GHS6,000 ($437) and GHS12,000 ($874). This compares well to the earnings of a full-time wholesale employee in Ghana according to our expert estimations but is substantially less than that of a full-time retail employee reported by our experts. This potentially reflects that not all retail workers are employed full-time and permanently.

[56] $2.15 a day in 2017 prices were equivalent to $2.63 a day in 2023 (around $80 a month) assuming price increases of around 22% since 2017 (GDP deflator of 122.2835 (scale: 2017=100); Bureau of Economic Analysis, Haver Analytics, Oxford Economics, 2024).

industry generally enables full-time workers to earn "living wages" within Ghana, Kenya, and Mozambique.

However, many of the interviewed informal traders in Ghana and Kenya indicated that they have someone assisting them that they pay daily. Simultaneously, several indicated that these workers also earn an income from other sources indicating that the payment offered is typically low. Thus, part-time helpers might find it harder to generate a living income.

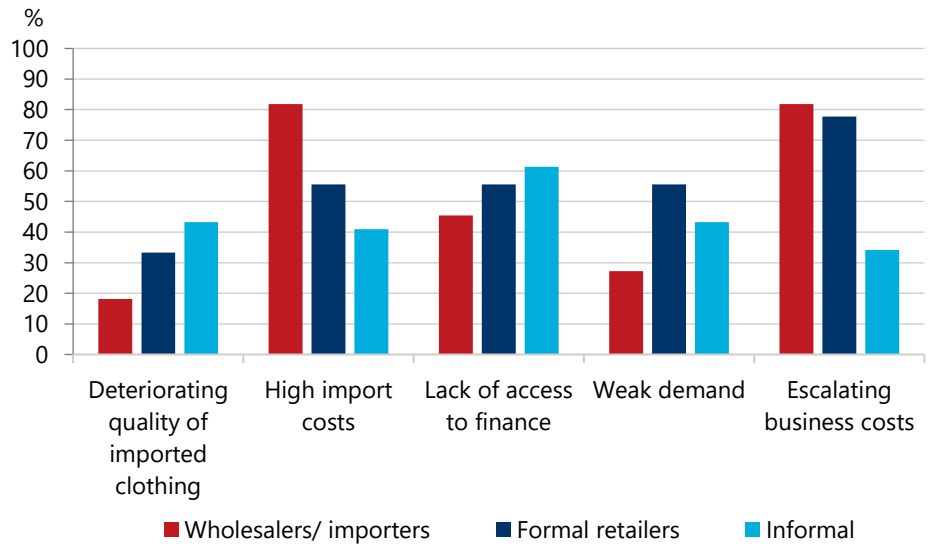
CHALLENGES IN THE GLOBAL SOUTH'S SHC INDUSTRY

Incomes earned in this sector do not come without risk and are highly volatile. While most of the interviewed importers, wholesalers, and retailers agreed that the industry is profitable—a precondition for paying wages reliably—there are still several factors affecting their profitability. Apart from the risk of clothing bales having low-quality items inside, traders across different African countries frequently complain about volatility in sales (Reinkenhoff & Ahlmann, 2023). This is due to the realised price of clothing items changing depending on fluctuations in customer demand. Given that the industry is solely reliant on imports, the weak exchange rate in countries such as Ghana is seen as a major deterrent to the profitability of those in the industry.

> ***"It's not easy to manage the second-hand clothes business, especially with the changing times and economy getting worse"*** – informal trader in Kenya

Our fieldwork supports this qualitative finding. Figure 42 summarises the key challenges mentioned by the various actors in the value chain during the on-site interviews.

FIGURE 42: PERCEIVED CHALLENGES IN THE SHC INDUSTRY, 2024



Source: Oxford Economics based on on-site observations

Most notably, the intensity of perceived challenges depends on the position in the value chain. For example, importers and wholesalers are more affected by the high costs of imports and business

costs, while informal retailers are more concerned with the quality of clothing and their lack of access to finance.

AFFORDABILITY AND ACCESS TO CLOTHING

The SHC industry has several socioeconomic benefits; not only does it create jobs and generate income, allowing the people working in the industry to support their dependents, but it also ensures affordable clothing options are available, especially for those living in poverty. In 2015 it was estimated that over 90% of people in Ghana wore SHC (Agra & Gbadegbe, 2015). In 2017, the UN estimated that 80% of Africans wear SHC (Sumo, et al., 2023). A survey conducted in Kenya in 2022 found that used clothing cost three to five times less than locally manufactured clothing items (Dissanyake & Pal, 2022).

In rural areas in Mozambique, SHC allows people with high levels of poverty to dress themselves with dignity, according to an interviewee in the country. Similar sentiments were shared by customers in Ghana, where 56% of survey respondents indicated that SHC is a necessity for protection and modesty (Ghana Used Clothing Dealers Association, 2024). Approximately 86% of the interviewed customers of SHC traders in Kenya, Mozambique, and Ghana agreed that the leading reason for purchasing SHC is their affordability. Furthermore, many perceive the quality to be better than that of new clothing, with 68% of interviewed customers mentioning that the quality of SHC is better than new clothes.

> ***"Most people in my community don't earn much, so it helps them get enough clothes to wear"*** – interviewed shopper in Ghana

Therefore, the cost-effectiveness of SHC is a major reason to buy SHC, providing high-quality garments for low prices. For instance, even prices of cheap, fast fashion imports from China typically cost two to four times as much as SHC (Watson, et al., 2016). While affordability is emphasised as the prominent reason for purchasing SHC in the Global South, consumer surveys show that sustainability and environmental considerations also play a role in purchase decisions (Acquaye, et al., 2023). Interviewed customers also indicated that SHC offer more variety to choose from and that the clothing is unique compared to new clothing.

As highlighted by several interviewees, the SHC industry also generates economic activity in economically deprived areas in all three countries. Some retailers, particularly informal ones, buy clothes from wholesalers to resell in remote areas, such as their own villages. As such, even small towns and villages without direct access to the formal SHC value chain benefit from the SHC trade with the EU27+. During the on-site interviews conducted in Ghana, informal traders reported that they sell poor-quality clothes from their sorted bales to informal traders from rural areas. This not only gives people across the country access to affordable clothes but also generates economic activity within these areas.

4.3. ENVIRONMENTAL IMPACTS OF SHC

The SHC industry promotes the reuse of clothing, a crucial element for advancing circular economies by reducing waste and the use of raw materials. This chapter will therefore explore the key positive and negative environmental aspects associated with the industry.

ENVIRONMENTAL IMPACT IN THE GLOBAL NORTH

One of the main benefits of the SHC trade is that it promotes the reuse of clothing, thereby reducing the consumption of new clothing. With the global textile industry accounting for about 10% of global carbon emissions and 10% of all the water used industrially and polluting rivers and streams (European Parliament, 2020; McFall-Johnson, 2020), reusing clothes offers substantial environmental benefits. Cheap retail fashion, in particular, is increasingly perceived as damaging the environment. Even compared to recycling, reusing textiles typically has more environmental benefits since the production of new products is avoided (Sandin & Peters, 2018). The number of times an average clothing item is worn decreased by 36% compared to 15 years ago (Ellen MacArthur Foundation, 2017), and global per capita textile production increased from 5.9 kg in the 1970s to 13kg in 2018 (Niinimäki, et al., 2020). As such, the environmental implications of reusing instead of producing new clothes have become even larger in recent decades.

Specifically looking at the Global North, reusing (and recycling) clothes positively affects the environment by diverting textiles from landfills and incineration plants. Both landfills and incineration plants create environmental pressures in the form of water, soil, or air pollution by emitting toxins and pollutants or triggering waste leachate. By reusing textiles rather than disposing of them in municipal waste, the amount of waste ending up in landfills or incineration plants is effectively reduced, mitigating environmental pressures.

The SHC industry is highly transport-intensive. Used clothes must first be collected, potentially transported to transit warehouses, are then brought to sorting centres (which are most often in Eastern Europe), after which they are transported either back across Europe to retailers or shipped to importers around the globe (e.g., in Africa). Due to the extensive value chain, the environmental impact of transport associated with SHC is higher compared to new clothes. Despite this, research has estimated that the environmental impact concerning CO_2 emissions and water usage of reusing clothes is still 70 times lower compared to producing new clothes, even accounting for local transport and global exports of SHC (EuRIC TEXTILES, 2023).

ENVIRONMENTAL IMPACT IN THE GLOBAL SOUTH

Despite the undeniably positive environmental contributions the industry makes by promoting the more sustainable reuse of clothing and by reducing textile waste in the Global North, there remains the important concern that the industry creates or exacerbates problems with textile waste management in African countries.

Waste is either produced by the SHC industry itself or by consumers. For the industry, it is generally understood that a certain percentage of clothes in imported SHC bales cannot be sold or repurposed—though the reported share of these unsellable clothing differs substantially. For the SHC industry's consumers, the question is when and how they dispose of clothing (purchased new or

second-hand) that has reached end-of-life. Here, public waste management is especially important to reduce the environmental impact of textile waste.

Several studies have estimated the share of a bale of clothing that is considered waste, yielding varied results. The Or Foundation (2022) estimate that approximately 40% of clothing bales delivered to the Kantamanto Market in Accra Ghana are considered waste. In contrast, a report commissioned by the Dutch government found that only 4% of imported textiles end up as waste in Ghana (Circle Economy, 2023). More recent research indicates that most traders reported the percentage of waste to be between zero and 4% (Ghana Used Clothing Dealers Association, 2024).

> ***"We don't throw our waste away because we buy the bale with money, so even the waste we try to sell"*** – Informal retailer in Ghana

The striking difference in reported waste levels can be explained by a different understanding of the term "waste" in the respective studies. While Skinner (2019) estimates the share of waste based on the share of unsold items in each bale (which includes even high-quality clothing items) the other estimates refer to those items that are considered unsellable by the respective traders—so-called "under" —and thus not even offered for sale. According to several of our explorative interviews, it is important to stress that while some of the garments offered for sale cannot be sold to consumers, they are often subsequently sold to other informal retailers who "upcycle" clothes and can sell the items at lower prices.

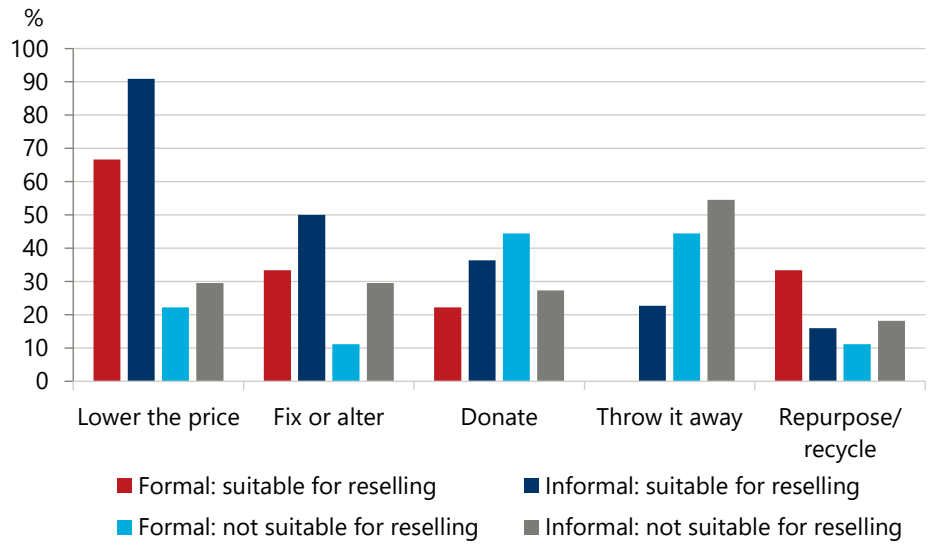
If asked about the "under", most (61%) of the formal and informal traders interviewed in our fieldwork in Ghana, Kenya, and Mozambique indicated that they perceive the share of a bale that they cannot sell to be less than 5%. However, a few (20%) mentioned that they believe it to be between 6% and 15% (20%), while 15% of traders reported that they perceive it to be more than 25%. This compares to the findings of other studies; Diamond (2023a) found that retailers in Kenya reported no more than 2% of imported SHC items end up as actual waste, while the Ghana Used Clothing Dealers Association (2024) reports that 73% of traders indicated that the waste share of a bale is less than 5%.

The share of ultimate waste in the "under" depends on the retailers' approach to unsellable clothes. In general, interviewees stressed that due to the high import cost, most of the imported clothing items must be sold for businesses in the SHC industry of Ghana, Kenya, and Mozambique to be profitable. Thus, optimising quality throughout the supply chain is not just a matter of reducing waste for wholesalers and retailers, but also key to maintaining profitable and sustainable operations.

Figure 43 summarises the responses from formal and informal retailers in Kenya, Ghana, and Mozambique on their approach regarding clothing that they deem saleable versus those that are not. Lowering the price of an item suitable for reselling is often the first choice for retailers in the formal and informal sectors if they deem an item of sufficient quality to resell. Other options for formal retailers include fixing and altering the clothes, donating them, or repurposing/recycling the clothes suitable for reselling. While informal retailers use these approaches to maximise their profit, they also reported discarding resalable clothing items as trash. Strikingly, no formal retailer reported to throw away resalable clothing.

The approaches to clothing not suitable for reselling differ again between formal and informal retailers. While formal retailers donate or throw the clothing away, repurposing/recycling as well as fixing and altering seems to be a less-preferred option. In contrast to that, informal retailers lower the price of unsalable clothing, fix, and alter it themselves and repurpose/recycle it more often. This highlights that tailors in the informal markets play an important role in reducing discarded clothing that is of poor quality. Tailors often purchase clothes from traders, which they repair and then resell, or customers bring their SHC purchases for repairs or alteration.

FIGURE 43: DISTRIBUTION OF DISPOSAL METHODS REPORTED BY RETAILERS, 2024



Source: Oxford Economics based on on-site observations

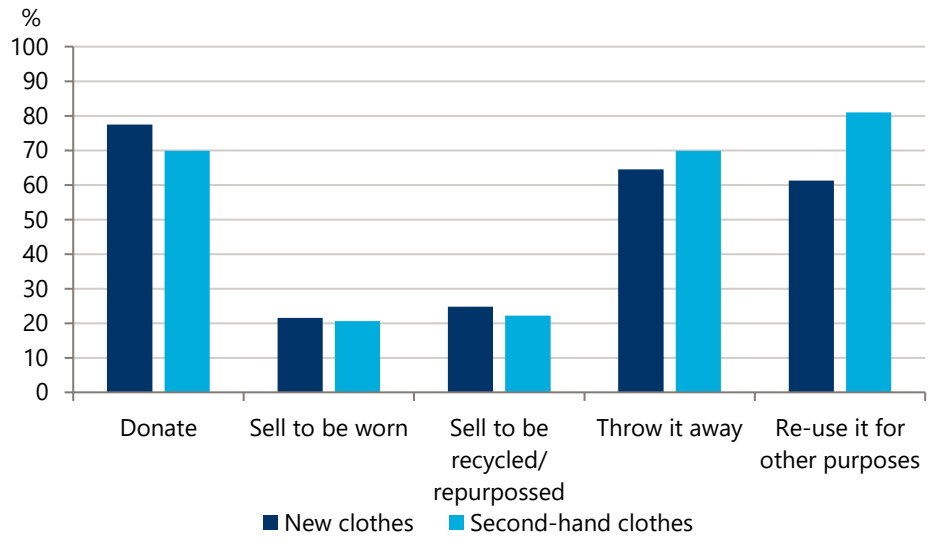
For unsalable clothes, the share of retailers reporting throwing the clothing away is—not surprisingly—higher than for clothing suitable for selling, both for formal and informal retailers. Thus, all efforts to increase the share of clothing suitable to sell will reduce the share of textile waste. The lack of domestic sorting centres in some regions might therefore increase the shares of unsellable clothes. If sorting centres existed, informal retailers could only buy clothes suited for their customers, decreasing the amount of unsold clothes being thrown away. For example, an incentive-based purchase campaign of clothing waste in Accra determined that 37% of the waste collected was "Quality 3" clothing, meaning that the clothing is still wearable, but unsellable in the local market, as it is either the wrong size, style, or for the wrong season (GIZ, 2024). The same study found that 47% of the waste was textile cuttings from the tailor and sewing industry and 15% was "Quality 4" clothing, which is unwearable.

FIGURE 44: SORTED BALE OF CLOTHING IN GHANA, 2024

Figure shows a sorted pile of clothing from an informal trader in Ghana. The clothing pile on the right is considered the "waste" pile, which contains clothes that are stained, dirty, and have frayed collars and tears.
Source: Oxford Economics based on on-site observations

Another key determinant of waste levels is consumer behaviour. Interviewed customers in the studied African countries indicated several methods of disposing of the clothes they no longer wish to wear. While new and SHC are often donated, further prolonging their use, repurposing clothes into items such as cleaning rags or simply throwing clothes away are the most often used methods of disposal. According to an interviewee in Kenya, clothes that are thrown away are no longer fit for any use, as people want to prolong the use of all items. Interestingly, SHC is more often reported to be reused for other purposes than new clothes. Recycling is an option for only around 20% of respondents, which supports a finding from Nairobi where only 24% of survey respondents knew of the importance of textile recycling programmes (Diamond, 2023a).

FIGURE 45: CLOTHING DISPOSAL METHODS FROM INTERVIEWED CUSTOMERS, 2024[57]



Source: Oxford Economics based on on-site observations

Looking at the handling of textile waste, a study in Ghana found that 39% of survey respondents indicated that they dispose of end-of-life clothing through trash bins, while 30% indicated that burning is their preferred method of disposal (Ghana Used Clothing Dealers Association, 2024). The same can be assumed to hold for informal retailers. Thus, discarded clothes can end up in landfills as most other waste in the studied countries. Informal dumping and burning of textiles are also prevalent around the Gikomba market in Kenya, while textile waste often ends up on the banks of the Nairobi River (Circle Economy, 2023).

The lack of capacity to deal with general waste in rapidly expanding urban centres in Africa further contributes to waste in undesignated disposal sites and the negative environmental impacts associated with improper waste management. In Ghana, rapid urbanisation and population growth, inadequate supply of trash bins, lack of waste transport systems, and low public awareness of the detrimental effects of poor waste management are all contributing factors to the high rate of improper waste management prevalent in the country (Lissah, et al., 2021).

[57] Values don't add to 100% as respondents could select multiple options.

The issue of textile and clothing waste in the studies of African countries is therefore much broader than the SHC trade. However, the industry provides a unique opportunity to promote circularity, as mentioned by one interviewee. By enhancing reuse and environmentally sustainable solutions for the disposal of end-of-life clothing, the socioeconomic benefits of the industry in the Global South can be enhanced while the potential negative effects on the local environment can be reduced. To a certain degree, such initiatives are taking place on a small scale in certain countries, but there is scope for better collaboration within the industry to manage waste.

When compared to new fast-fashion imports, better quality SHC is likely to be worn for longer, and therefore require less frequent substitution, which will contribute to reducing post-consumer waste. Considering the low environmental impact of reusing clothes compared to producing new clothes, solutions for managing waste associated with the SHC trade in the Global South will boost the overall environmental sustainability of the industry along its entire value chain.

5. POLICY SPACE FOR SHC

Given the environmental aspects discussed in the previous chapter and the extensively analysed socioeconomic impacts of the second-hand industry, this chapter examines the relevant policies in the EU and the African countries within the study. It aims to understand how the SHC industry aligns with existing frameworks and how it can further contribute to the development of circular economies and effective waste management in the future.

5.1. RELEVANT POLICIES AND OBJECTIVES IN THE GLOBAL NORTH

OVERVIEW OF THE EU POLICIES

The SHC industry—both its commercial and its not-for-profit part—is subject to various regulations and policies which serve as the guiding framework for the industry's activities. Besides national regulations, there are multiple relevant rules at the level of the EU. Those are mostly related to the overall objective of contributing to a circular economy, strengthening effective waste management, and eventually reducing the carbon footprint and the emission of harmful substances and materials. Defining relevant directives and regulations for the textile and SHC industry is still an ongoing process, which will probably be finalised in the coming years. In particular, the following EU policies are relevant to the SHC industry:

The **European Green Deal** is one of the flagship initiatives of the European Union around environmental protection and the mitigation of climate change. Introduced in 2019, the regulation's aim is to reduce net greenhouse gas emissions by 55% by the year 2030 (compared to the baseline value in 1990) and reach climate neutrality of the continent by 2050 (European Commission, 2024a). These targets were adopted by the European Parliament, which passed the EU Climate Law on June 24, 2021, and makes the goals set out in the European Green Deal legally binding (European Parliament, 2023). The European Green Deal serves as an overall initiative that bundles multiple specific plans, policies, and measures.

One of these is the **Circular Economy Action Plan** (CEAP). Introduced in 2020, the plan aims to decouple economic growth from resource usage. In other words, economic growth should be ensured without a substantial consumption of resources. To reach this goal, a focus is put on the reuse of materials and the reduction of waste. In this context, textiles play a crucial role: with about 12.6 million tonnes of textiles discarded every year within the EU, of which only around 22% are currently being reused or recycled, textiles constitute a significant share of the waste in the EU (European Commission, 2023b). Hence, simultaneously reducing the amount of textile waste and increasing the share of reused or recycled textiles is an important mechanism to reach the overall goal of a more circular economy. Accordingly, the 2020 CEAP defines the goal of halving the amount of residual (non-recycled) municipal waste by 2030 (European Commission, 2020). Textiles are emphasised as one of the seven key product value chains to focus on in the CEAP. Acknowledging the complexity of the value chain and the high degree of international interdependence, the plan emphasises the relevance of developing an integrated framework that addresses the multiple steps along the value chain (European Commission, 2020; European Commission, 2024b).

The **European Industrial Strategy**, also published in 2020, addresses the twin goals of transitioning towards a greener and a more digital economy in the EU, and thus emphasises the role of a more sustainable design of economic activity. Implemented and adjusted in the wake of the Covid-19 pandemic, the strategy particularly emphasises the importance of an increased resilience of the single market and of reducing trade barriers and frictions. Small and medium-sized enterprises (SMEs) play a particularly important role in the strategy. Due to their size, they are well-positioned to implement innovative business approaches, but at the same time, tend to be particularly affected by, for example, high bureaucratic requirements. With the textile sector being dominated by SMEs, as 99.5% of all companies active in this sector fall under this category (European Commission, 2024c), and defined as of the 14 industrial ecosystems by the European Commission, the sector plays an important role in reaching the goals in the industrial strategy.

The three plans—European Green Deal, CEAP, and European Industrial Strategy—target the overall economy and include multiple sectors. To adjust these general goals to the textiles sector, various further strategies are in place. In particular, the **EU Strategy for Sustainable and Circular Textiles** bundles multiple actions aimed at creating a more sustainable and resource-saving textile industry. Its explicit goal is that "by 2030, textile products placed on the EU market are long-lived and recyclable, made as much as possible of recycled fibres, free of hazardous substances and produced in respect of social rights and the environment" (European Commission, 2022a). The strategy advocates for measures along the entire value chain, including both the production and the disposal of textiles, with the measures concerning durability, reparability, the suitability for recycling of materials, or the use of recycled fabrics, for example.

Within the framework of the EU Strategy for Sustainable and Circular Textiles, several concrete plans and regulations are specified. For example, mandatory minimums for the inclusion of recycled fibres in textiles set out to make textiles longer lasting and easier to repair and recycle. This regulation ties in with wider, cross-industry regulatory efforts: the **Ecodesign for Sustainable Products Regulation** (ESPR) aims to make sustainable products the norm in the EU (European Commission, 2022b). The ESPR encourages improved product design to facilitate recycling and reuse. A new "Digital Product Passport", highlighting the environmental impact of a product, can improve both transparency and accountability of companies and allow consumers to better understand the environmental impact of products (European Commission, 2024d). In this context, experts emphasise the relevance of connecting all stages of the value chain to ensure that end-of-life considerations, like repair and reuse, are factored in during the design phase. After an agreement between the European Parliament and the Council was reached in December 2023, the ESPR is set to take effect following formal adoption (European Commission, 2023c).

There are some additional key pillars in the transition towards a greener and more sustainable economy in the EU. One of these policies is the **Waste Framework Directive**, which establishes the five-step waste hierarchy as the foundation of EU waste management (European Commission, 2024f). The directive focuses on waste management in general, with a specific emphasis on ways to reduce waste—through preventing it from occurring in the first place, or through appropriate measures that allow materials to be repurposed or disposed of correctly. Among other things, it sets out concrete reuse and recycling target rates for member states (a minimum of 55% of municipal waste must be prepared for reuse/recycling by 2025, a minimum of 60% by 2030, and a minimum of 65% by 2035) (European Parliament; Council of the European Union, 2018).

In 2023, a revision of the Waste Framework Directive was proposed within the context of the EU Strategy for Sustainable and Circular Textiles and is expected to enter into force in 2025 (European Commission, 2024e; European Commission, 2024f; European Commission, 2023d). This revision will also introduce the **Extended Producer Responsibility** (EPR), which holds producers' accountable for their products even after consumer use. Consequently, producers will be responsible for managing end-of-life processes, such as disposal or recycling (European Organization for Packaging and the Environment, 2015). In that sense, it follows the Polluter Pays Principle (PPP) and ensures that, for example, the costs associated with the disposal of waste must be borne by the producer.

In the revision of the Waste Framework Directive, the European Commission proposed an EPR scheme with a **specific emphasis on textiles** (European Commission, 2023b). Inspired by the successful implementation of the EPR in other sectors (e.g., electricity and packaging), this directive aims to ensure effective waste management that enables the re-usage and recycling process of textiles. The proposed EPR schemes also set out to support textile waste collection and sorting companies which will likely face cost pressures from oversupply as the **separate collection of textile waste** will become mandatory by 2025 (European Commission, 2023e). A dedicated collection of textiles is the first step to ensure a more effective reuse and recycling process. According to expert assessments, this regulation is important to create a level playing field for companies collecting and trading used clothes, as all actors will have the same framework conditions and existing leeway for improper disposal of textiles will be reduced. Besides the protection of scarce resources, this contributes to the creation of green jobs, with the British Office for National Statistics considering jobs in the field of waste management as "green" (Office for National Statistics, 2023).

Another regulatory framework that is relevant to the SHC industry is the EU's **Waste Shipments Regulation** (WSR). The WSR aims to regulate and control the transboundary movement of waste to ensure environmental protection and public health, both within the EU and globally. A recent revision of the WSR included a ban on waste exports from EU countries to non-OECD countries, unless these importing countries inform the EU Commission they are willing to import waste and demonstrate that they can manage it sustainably. These requirements will start to apply in May 2027 and are supposed to ensure that the EU does not export its waste challenges to non-OECD countries with environmentally unsound waste management systems. The regulation increases the accountability in the export of textile waste not suitable for reuse, and hence combats extensive waste exports. Importantly, the WSR also classifies all separately collected used textiles and textile items as waste under the proposed revised definitions of waste, until they have undergone sorting by a trained sorting operator following harmonised sorting requirements (European Commission, 2024g). The regulation acknowledges the usefulness of conducting comprehensive sorting procedures before textiles are exported to avoid uncontrolled waste exports, especially considering the lack of infrastructure to handle the waste appropriately.

Besides the regulations mainly targeted at effective waste management and circularity, the **EU Development Policy** addresses political challenges and solutions that overlap with the mechanisms of the SHC industry. The EU Development Policy bundles multiple measures that promote sustainable development and stability in developing countries, aiming at alleviating (extreme) poverty. EU development policy particularly tries to achieve the UN SDGs as reflected in the European Consensus on Development (European Commission, 2024h). Alongside its trade policies, development assistance is a fundamental aspect of the EU's external action and therefore provides important implications for

the SHC trade. By providing guidelines for strategic cooperation between countries in the EU and partner countries in the Global South, EU development policy advocates for the SHC trade that supports local economies without undermining local industries, and therefore contributes to the SDGs. This cooperation is built on various pillars and is aligned with other engagements of international institutions to combat poverty and strengthen sustainable development (EUR-Lex, 2019). In general, it aims at making development policies more coherent and harmonise various policy fields with each other. In this regard, it can contribute to organising the cooperation between the Global North and the Global South in the field of SHC.

CONTRIBUTION OF SHC TO EU POLICIES

Textile consumption in Europe follows food, housing, and mobility as having the fourth-highest negative impact on the environment. More precisely, it belongs to the top three sectors responsible for pressure on water and land use, and the top five for the use of raw materials and the emission of greenhouse gases (European Commission, 2023f). These figures emphasise the key role that the clothing sector in general and the SHC industry have in reaching the goals set out by the European Union in the field of climate and environmental protection.

Furthermore, SHC enjoy great popularity, with more than 60% of consumers in the EU27+ having purchased SHC in 2023 (Statista, 2023b). Hence, both environmentally and economically, the SHC industry has the potential to act as a large lever in the transformation towards a greener and more sustainable economy This can also be seen by the EU legislation and plans, which determine that managing the textile industry is necessary to meet the key objectives of reducing waste and mitigating the natural resources for strategic independence. The policies and initiatives developed by the EU in recent years have aimed at decoupling economic growth from extensive resource usage and environmental damage. The SHC industry is in a key position to contribute to these goals in several ways:

Prolonging the lifecycle of clothing has been one of the key objectives of the SHC industry. This is achieved through comprehensive collection, effective sorting procedures, and well-thought-out reallocation of used clothes. SHC collection points provide low-threshold opportunities for consumers to discard used clothes, enabling a high share of collected used clothes. This, in turn, allows for a comprehensive re-use of clothes and significant savings of resources and energy. Hence, the overarching goal and inherent feature of SHC—reusing clothes instead of discarding old ones and producing new ones—ties in directly with EU policies to reduce textile waste.

By prolonging the used life of clothes, the SHC industry contributes to the main goal of the EU Strategy for Sustainable and Circular Textiles. According to the strategy, textiles placed on the EU market should be "long-lived" and manufactured in adherence to environmental standards by 2030 (European Commission, 2022a). The SHC industry is the single most efficient contributor to reaching this goal. If already existing clothes are being reused, the necessity to produce new clothes is reduced. Consequently, this decreases the demand for resources, such as water, cotton (or other materials used to produce fabric), and energy, needed in the production process. In turn, this reduces the pressure on natural resources and the emission of environmentally harmful substances. Without appropriate collection infrastructure, sorting facilities, and resale institutions, it would be significantly more challenging to collect and allocate used clothes efficiently.

The waste reduction enabled by the SHC industry also ties in with the EU goal stated in the CEAP (European Parliament; Council of the European Union, 2018) of halving the amount of residual municipal waste by 2030 (compared to 2020 levels), equivalent to a target level of around 56 million tonnes of residual waste. A tentative estimate by JRC (2021) indicated that the separate collection of used textiles across the EU27+ in 2020 roughly amounted to around 1.7 to 2.1 million tonnes. Consistent with this range, we estimate that the SHC industry collected 2.7 million tonnes in the EU27+ in 2023, of which around 2.0 million tonnes have been collected in the EU27+.[58] Without the separate collection of textile waste through the SHC industry, it can be assumed that most of these textiles would have ended up as residual municipal waste due to, for instance, a lack of designated textile collection containers. With separate textile collection becoming mandatory in the EU by 2025, even more textile waste will be collected separately instead of through residual municipal waste. This underscores the significant contribution and potential of the industry towards EU goals of waste reduction.

Through the collection and sorting of textile waste, the SHC industry also contributes to effective waste management at the centre of the political agenda in, for example, the Waste Framework Directive. Reusing clothes is the preferred option to manage and reduce waste described in the directive (European Commission, 2024f). The SHC industry plays a vital part in the collection of textile waste and in ensuring that the materials are subsequently used purposefully, thereby contributing to the attainment of reuse/recycling rate targets. For instance, the sorting centres in the EU27+ report that they already enable around 90% of separately collected and subsequently sorted textiles to be reused or recycled. This compares to the Waste Framework Directive targets of 65% of municipal waste being prepared for reuse/recycling by 2035. With relevant infrastructure, such as sorting facilities, already being place, and separate collection of textile waste becoming mandatory in 2025, the industry will also play an increasingly important role in repurposing textiles that are currently still collected as municipal waste.

Moreover, one unique strength of the SHC industry is that it generates new revenue and value-added independent of resource usage. As described in Chapter 4.1, we estimate that the SHC industry in the EU27+ generated just under €3.0 billion in GVA through the collection, sorting, and sale of SHC. In this regard, the industry ties in directly with the CEAP that strives to reshape the economic landscape such that economic activity and value-added can be decoupled from the extensive need for resource usage. The aim of the CEAP and other initiatives is to reduce resource usage while still fostering economic growth. By reconciling economic activity and resource-saving, the SHC industry directly contributes to these goals.

The SHC industry also generates a substantial number of green jobs. According to the industry-based approach, the UK's Office for National Statistics defines green jobs as all jobs employed within a green industry. This includes, among others, activities related to "the collection, treatment, and disposal of various forms of waste", and recycling activities, including "separating and sorting of materials from waste streams and mixed recoverable materials into distinct categories" (Office for National Statistics, 2024). Thus, we estimate that the industry generated about 110,000 green jobs in the EU27+ (see Chapter 4.1)Chapter -1369441440 -. These are created, for example, in sorting

[58] Based on data published by the European Commission (2023) and Circle Economy, EigenDraads & Fashion for Good (2022), we estimate that around 25% of textiles collected within the EU27+ have been collected in the UK.

facilities, but also along the other steps across the value chain. Moreover, the industry likely supported green jobs in other industries as well, due to its potential procurement spending with suppliers in green industries. The SHC industry therefore provides an opportunity to stimulate jobs, revenue, and GVA without using scarce resources to produce new clothes, and can serve as a blueprint for the decoupling of economic growth from resource usage.

In the SHC industry, not-for-profit organisations are relevant actors. The revenues which they generate are often used to fund social causes that align with the EU Development Policy. For example, the profits from selling SHC can be used to deliver development initiatives in agriculture, education, and health, and to provide humanitarian aid (ADPP Mozambique, 2024). Selling clothes on the second-hand market yields significant opportunities for revenue and, consequently, profit. Hence, the SHC industry is not only important in the clothing industry, but it is more broadly an important contributor to the promotion of social and philanthropic initiatives. Hence, the direct positive impact created in the second-hand value chain is amplified by the indirect benefits that stem from measures and initiatives that support global development.

While the SHC industry's main goal is to reuse textiles, the first steps along the value chain (i.e., the collection and sorting of textiles) can also contribute to **increasing the share of recycled textiles** and are therefore indispensable for the recycling industry. Currently, less than 1% of all materials used for clothing production are recycled (European Commission, 2024i). It becomes clear that there is tremendous potential for both reusing and recycling textiles to be leveraged by the SHC sector. Based on survey responses from European collection and sorting companies, we estimate that in 2023, separate textile collections in the EU27+ facilitated the recycling of up to 550,000 tonnes of used clothes. Thus, the SHC industry is an indispensable supplier for the recycling industry. As initiatives strengthen, the re-usage of clothes is often associated with an increase in sorting infrastructure, and these initiatives can also increase the number of textiles being recycled. This can contribute to the broader goal of establishing sustainable approaches and structures in the clothing industry.

Finally, the SHC industry is essential for reconciling the goals of the WSR with the objectives of EU Development Policy. While the WSR aims to prevent EU member states from exporting their waste challenges to non-OECD countries, it may also reduce the availability of SHC in the Global South by initially considering all collected textiles as waste: As some collected, unsorted textiles are currently exported to non-OECD countries, such as the UAE, Oman, India, or Pakistan, for processing and sorting, the WSR could prevent this trade and therefore reduce the amount of sorted SHC garments. This directly contradicts the main objective of EU Development Policy—alleviating poverty—by reducing the volume of affordable clothing available for importing countries. Sorting centres within the EU27+ will therefore be even more important in conducting the necessary sorting and thus be crucial in facilitating the continuous supply of affordable clothing to many countries in the Global South, including Ghana, Kenya, and Mozambique. Through the export of used clothes to these countries, the SHC industry also contributes to EU Development Policy by creating jobs opportunities for local workers. We estimate that SHC imports from the EU27+ stimulated 22,000 formal jobs in Ghana, 6,300 formal jobs in Kenya, and 5,700 formal jobs in Mozambique in 2023, providing stable income opportunities, fostering economic growth, and further alleviating poverty. Moreover, second-hand clothing imports from the EU27+ provided substantial employment opportunities for informal workers, with at least 43,000, 68,000, and 15,000 informal workers in Ghana, Kenya, and Mozambique, respectively, directly benefitting from this trade.

5.2. RELEVANT POLICIES AND OBJECTIVES IN THE GLOBAL SOUTH

OVERVIEW OF THE POLICIES

There has been growing intent among policymakers to promote sustainable development in the African continent, act against climate change, and foster circular economies. Such initiatives are in line with the **Agenda 2063: The Africa We Want**, the continent's long-term strategic framework, which seeks not only to create transformed economies but also to build environmentally sustainable and climate-resilient economies and communities. One of the strategies identified in Agenda 2063 is to develop and implement policies to grow urban waste recycling industries.

In 2019, ministers attending the African Ministerial Conference on the Environment (AMCEN) signed the "Durban Declaration", committing to take action for environmental sustainability in Africa. The declaration acknowledges the value of the circular economy in Africa, its potential to reduce waste, and the opportunities for employment and sustainable development. Key commitments relating to the circular economy include:

- Raising political visibility and awareness of the circular economy by developing appropriate policies, regulatory frameworks, and institutional arrangements.
- Using and scaling up circular economy approaches in reaching the goals outlined for the continent in Agenda 2063.
- Encouraging the private sector and other non-state actors to promote and invest in the circular economy to create employment and support sustainable trade, as well as create markets for green products and services.
- Promoting the implementation of circular economy principles to assist with reducing the dependence on natural resources and reducing pollution on the continent.

Furthermore, ministers also reaffirmed their commitment to the implementation of the UN Framework Convention on Climate Change and the Paris Agreement, which include, among others, reducing waste and resource consumption. All three of the African countries included in the study have included tackling waste in their Nationally Determined Contributions (NDCs). Ghana aims to adopt alternative urban solid waste management solutions (Republic of Ghana, 2021) while Kenya identified the need for a sustainable waste management system as a priority mitigation activity against climate change (Kenya Ministry of Environment and Forestry, 2020). Mozambique aims to manage and recover waste by promoting sustainable waste management practices, especially in urban areas (Government of Mozambique, 2021).

The **African Union Climate Change and Resilient Development Strategy Action Plan (2022–2032)** envisions a sustainable, prosperous, equitable, and climate-resilient Africa. The action plan recognises the importance of strengthening the waste value chain and promoting waste management systems that emphasise waste-to-resource conversion. This includes promoting national industrial waste management programmes and developing properly designed and managed waste management systems to reduce emissions and pollution. One of the suggested actions included in the Action Plan is to build a circular economy for waste. However, the Action Plan does not detail how this is to be achieved. Furthermore, this strategy does not specifically mention recycling nor the textile and

clothing industry. In 2023, the African Union also adopted a **Continental CEAP (2024–2034)** which prioritises sectors such as construction, packaging and plastics, electronics, textiles, and mining.

On a country level, policies that focus on the circular economy are still in their infancy, whereas waste management legislation is more developed. Despite this, according to interviewees in Ghana and Kenya, current levels of waste management are a significant challenge and not specifically isolated to textile waste or the SHC industry.

In **Ghana**, actions to enhance the circular economy are outlined in a CEAP which prioritises plastics, electronics, textiles, agriculture and food systems, the built environment, waste, and water. However, according to our interviews, the policy was still under development at the time of writing. The **National Solid Waste Management Strategy** (2020) for Ghana emphasises the waste management crisis in the country, which is especially prevalent in urban areas with a lack of control over public behaviour and compounded by inadequate and ineffective service delivery. This aligns with information shared by interviewees in the country. While there is currently a lack of adequate recycling facilities in the country, it also provides an opportunity for developing the circular economy.

The **Kenyan** government has committed to reducing waste by enacting the **Sustainable Waste Management Act** (2022). The Act outlines the responsibilities of the private and public sector in terms of managing waste in the country to realise Kenyans' right to a clean and healthy environment which is enshrined in the country's Constitution. **The Green Economy Strategy and Implementation Plan (2016–2030)** also emphasises the need to develop sufficient infrastructure and capacity to prevent waste and improve capacity for recycling. The **Sustainable Waste Management Policy (2021)** aims to promote a local circular economy by creating an enabling environment for sustainable and integrated waste management, reducing waste generation while also creating employment opportunities.

In 2012, the **Mozambique Green Economy Roadmap** was launched, while the **GEAP** was adopted in response to the roadmap in 2013. The objectives of the GEAP are to serve as the foundation for the development of a green economy in Mozambique and to ensure that the green growth agenda is included in national development priorities. Furthermore, the GEAP seeks to provide concrete actions to promote the green economy agenda in the country, while also integrating the green economy approach into future public planning and budgeting activities (African Development Bank, 2015).

Moreover, **Just Transition** mechanisms have important implications for the SHC industry in the Global South. The African Development Bank describes the Just Transition in Africa as ensuring that the livelihoods of all people are supported as societies transition to low carbon and sustainable economies (African Development Bank, 2022). In this context, the **Solidarity and Just Transition Silesia Declaration** specifically emphasises the importance of creating decent work and quality jobs for an inclusive and effective transition to low carbon and climate resilient economies (COP24, 2018). Ghana, for example, has adapted its policy goals accordingly, by aiming at a transition into a climate-resilient economy that promotes their citizens' wellbeing without damaging the environment (Republic of Ghana, 2021).

Next to environmental policies aiming at sustainability, including a Just Transition, import restrictions have been introduced to limit the amount of unwearable clothes entering the market. For example, the Kenya Bureau of Standards (KEBS) have strict regulations regarding the import of SHC into Kenya. Some of these regulations include grading standards as well as the

permissible number of defects in a consignment. This ensures that waste levels in clothing bales remain low. The Ghana Standards Authority considers SHC a high-risk good (meaning the product has serious health, safety, and/or environmental implications), and thus also conducts inspections on consignments. Interviewed wholesalers and retailers emphasised that government interventions, such as inspecting consignments to ensure they meet quality standards, is important to reduce clothing waste associated with the SHC industry. Furthermore, through appropriate policy interventions, governments can promote circular economy principles in the industry. As stated by one interviewee in Ghana, actors within the SHC industry value chain should be supported to conduct their business in an environmentally sound way, given the benefits the industry has on the local economy.

CONTRIBUTION OF SHC TO THESE POLICIES

Despite the concerns raised that the SHC industry is harming local clothing manufacturing industries, and that the industry is contributing to environmental degradation in African countries, the value the industry has on the livelihoods of millions of people and the potential the industry holds for developing more sustainable, circular economies, cannot be ignored.

While there is little explicit mention of the SHC industry in the above policies, **the industry can play a valuable role in the development of a circular economy in Africa by providing a model for efficient textile collection, sorting, and recycling processes**. By doing so, it aids in the development of a robust waste management system that can handle not only textiles, but other types of waste as well. Domestic sorting facilities could support a central used textile and waste management system, which has the potential relieve the overburdened landfills and traditional waste management systems. This directly links to broader policy goals of African policymakers, such as the Durban Declaration, for example by promoting circular economy principles and reducing the dependence on resources. Moreover, domestic sorting facilities can also contribute to objectives of national policies, such as Ghana's National Solid Waste Management Strategy or Kenya's Sustainable Waste Management Act. Again, while these policies do not explicitly mention the SHC industry, comprehensive and precise sorting procedures following import could allow only suitable garments to be placed on the market.

The SHC industry also provides numerous job opportunities in sorting, wholesale, retail, and market trading, thus supporting local economies. As discussed in Chapter 4.2, thousands of formal and informal workers have been supported by the import of SHC from the EU27+ in Ghana, Kenya, and Mozambique. By creating jobs and generating income, the industry helps to alleviate poverty and promotes economic stability in line with the African Union's broader development goals. In particular, this directly links to the objective of Kenya's Sustainable Waste Management Policy, which aims to promote a circular economy creating employment. By supporting the SHC industry in categorising imported clothing, additional employment could be created in domestic sorting facilities while simultaneously reducing the textile waste associated with the sale of SHC and informal retail markets.

By promoting local circular economies that reduce waste and create employment opportunities, the SHC also makes valuable contributions to the Just Transition in African countries. The industry provides affordable, resource-preserving clothing for millions of people in African countries, including Ghana, Kenya, and Mozambique. Moreover, as discussed in Chapter 4.2, the SHC industries in these countries have provided substantial employment opportunities supporting the livelihoods of

both formal and informal SHC traders. Thus, SHC trade directly contributes to the creation of quality jobs envisioned in the Solidarity and Just Transition Silesia Declaration.

To enable and further extend the contributions of the SHC to these policy goals, **policymakers can also develop targeted regulations that support the SHC industry, while mitigating its potential drawbacks**. This could include increasing and enforcing standards for quality and hygiene in SHC imports, incentivising local recycling initiatives, and investing in infrastructure for efficient waste management. Additionally, policies that encourage collaboration between local manufacturers and the SHC sector can help integrate sustainable practices across the entire textile value chain.

5.3. OTHER POLICY GOALS IN THE INTERNATIONAL ARENA

OVERVIEW OF THE POLICIES

The textile industry is a highly globalised industry, with production and supply chains spanning multiple continents. Raw materials like cotton are often sourced from countries around the world—the main cotton producers being China, India, the US, and Brazil in 2023—while textile manufacturing predominantly occurs in nations with low labour costs, like China, India, Pakistan, and Bangladesh (International Cotton Advisory Committee, 2024). Major fashion brands, primarily based in Europe and North America, rely on these international supply chains to produce their goods.

The industry's global nature also means it is affected by international trade policies and policy goals. These goals are articulated through the UN SDGs which provide a universal framework to address the pressing economic, social, and environmental challenges facing the world. Through the EU development policy, and the European Consensus on Development in particular, the EU is explicitly committed to achieving the SDGs. As the SHC industry concerns several SDGs, it is paramount to consider the interplay between SHC trade and the respective policy goals. For example, the SHC industry can support several SDGs through its multifaceted activities, promoting sustainability, economic growth, and decent work across different regions.

The SDGs, established by the UN General Assembly (UNGA) in September 2015 as part of the 2030 Agenda for Sustainable Development, build upon the Millennium Development Goals (MDGs) that guided global development initiatives from 2000 to 2015. The MDGs were based on traditional concepts of development aid, concentrating on assisting the most vulnerable populations with a distinct division of responsibilities: the Global North provided financial aid to the Global South. In contrast, the SDGs expand on the MDGs by embracing a more comprehensive view of development cooperation, including targets and responsibilities for both the Global North and South. They promote cooperation both within and between these regions to achieve their goals.

The SDGs are not legally binding regulations, but rather political objectives set within the normative framework of international law, often referred to as "soft law" (Kim, 2016). As a "plan of action" (2030 Agenda), they are designed to shape the global development dialogue and establish measurable targets to encourage countries to implement national policies. While not being legally binding, the EU27+, Ghana, Kenya, and Mozambique have implemented strategies to achieve the SDGs and report on their respective progress towards these goals (European Commission, 2023g; Ministry of Finance Ghana, 2022; State Department for Economic Planning Kenya, 2022; Ministry of Economy and Finance Mozambique, 2020).

In this Chapter, we highlight how the SHC industry contributes to selected SDGs. While not all SDGs can be directly associated with the industry, many SDGs align closely with the goals and operations of the SHC sector. Therefore, pursuing the SDGs often goes hand in hand with promoting the SHC industry, and vice versa. For instance, the goals of poverty reduction, sustainable consumption and production, and climate action align closely with the industry's focus on reusing and recycling textiles, providing affordable clothing, and creating employment opportunities.

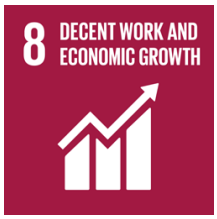
CONTRIBUTION OF SHC TO THESE POLICIES

SDG 1: No Poverty

The SHC industry **contributes to poverty alleviation by providing affordable clothing** options to low-income populations. In many African countries, a significant portion of the population relies on SHC due to their lower prices compared to new garments. In Malawi and Ghana, for example, only 10% of the population can afford new clothes instead of second-hand pieces (Watson, et al., 2016; Baden & Barber, 2005). This affordability helps people save money on essential clothing expenses, freeing up income for other necessities. Therefore, SHC exports from the EU27+ directly contribute to SDG 1. Moreover, providing access to affordable clothing supports the right to clothing recognised as a human right under the Universal Declaration of Human Rights (James, 2008). Additionally, the industry **generates numerous employment opportunities** in both formal and informal sectors, such as sorting, retail, and market trading. These jobs provide livelihoods for millions of people across the continent, reducing poverty levels. In Ghana, Kenya, and Mozambique, we estimate that the trade with SHC between the EU27+ and the three countries **generates around 56,000, 72,000, and 16,000 jobs**, respectively, for formal and informal workers directly employed within the SHC industry.

SDG 5: Gender Equality

The SHC industry promotes gender equality by **providing significant employment opportunities for women**. In the EU27+, for example, around 79% of all employees working in the SHC industry were women, with no reported difference in pay according to the surveyed companies. Women also make up a large portion of the workforce in the African countries, especially in the informal sector. During the on-site interviews in Ghana and Kenya, it was observed that most informal traders were women. These roles offer women a source of income and financial independence, which is crucial for improving their social and economic status. By empowering women through job creation and entrepreneurship, the **trade with SHC helps to reduce gender disparities and promote equal opportunities for women**. In addition, it contributes to women being increasingly recognised as (financial) supporters of their families. This empowerment fosters gender equality and contributes to broader societal development.



SDG 8: Decent Work and Economic Growth

The SHC industry **drives economic growth and creates decent work opportunities** across its value chain. From collection and sorting in the Global North to retail and market trading in the Global South, the industry involves various economic activities that contribute to local economies. Sorting centres, wholesalers, and retail shops generate substantial employment, often with a focus on fair wages and

safe working conditions. The SHC industry generated job opportunities for around **110,000 employees in the EU27+ and supported further 40,000 jobs** through its procurement spending and the wage-funded consumption spending of employees in 2023. In Ghana, Kenya, and Mozambique, the industry also stimulated **formalised employment for an estimated 22,000, 6,300, and 5,700 workers**, respectively (see Chapter 4.2). Interviewed stakeholders reported that standards regarding safe working conditions were upheld at least in this formal value chain across the EU27+, Ghana, Kenya, and Mozambique, providing decent job opportunities for thousands of people. By fostering economic activities and promoting fair labour practices, the industry, and SHC exports from the EU27+ specifically, enhance economic growth and employment.

SDG 12: Responsible Consumption and Production

The SHC industry promotes responsible consumption and production by extending the lifecycle of textiles and reducing waste. We estimate **that 2.7 million tonnes of used textiles were collected separately in the EU27+**, of which around 90% have been sold on for repurposing. Therefore, the SHC industry **prevented up to 2.5 million tonnes of textile waste in 2023**. By reusing and recycling clothes, the industry further minimises the demand for new textile production, which is resource-intensive and environmentally harmful. Sorting processes ensure that garments suitable for reuse are distributed to appropriate markets, while non-reusable textiles are directed towards recycling. This practice reduces the environmental impact of textile waste and supports the circular economy. Public awareness campaigns further encourage sustainable consumption by informing people about the benefits of donating and buying SHC.

SDG 13: Climate Action

The SHC industry contributes to climate action by **lowering the carbon footprint associated with clothing production** and disposal. While exports of SHC from the EU27+ to Ghana, Kenya, and Mozambique are associated with extensive shipping, reusing clothes reduces the need for new textile production involving significant greenhouse gas emissions from the cultivation of raw materials, manufacturing processes, and transportation. Notably, textile production can be linked to about 20% of global water pollution and 10% of global carbon emissions (European Parliament, 2024). The industry's emphasis on recycling further supports the reduction of waste and the conservation of resources, aligning with global efforts to combat climate change.

SDG 17: Partnerships for the Goals

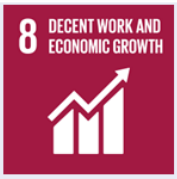
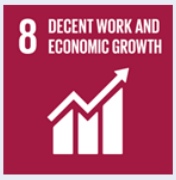
The SHC industry **exemplifies partnerships for achieving sustainable development goals** through its global value chain. The industry involves various stakeholders, including not-for-profit organisations, private companies, local municipalities, and international trade partners. These collaborations facilitate the collection, sorting, distribution, and resale of SHC, ensuring efficient and effective operations. International partnerships enable the export of sorted clothes from the Global North to the Global South, supporting economic activities and providing affordable clothing. These partnerships are crucial for the industry's success and its contributions to sustainable development.

5.4. SUMMARISED CONTRIBUTIONS OF THE SHC TO OVERALL POLICY GOALS

Table 9 summarises the above discussion and disaggregates the most important characteristic activities performed by the SHC industry. These activities are matched to the policy goals to which they contribute:

TABLE 9: OVERVIEW OF THE SHC INDUSTRY'S POLICY CONTRIBUTIONS

What the industry does...	Contribution to Policies/Objectives in the Global North	Contribution to Policies/Objectives in the Global South	Contribution to Sustainable Development Goals
Provides a more environmentally friendly alternative to newly-produced clothes	• European Green Deal • Circular Economy Action Plan • EU Strategy for Sustainable and Circular Textiles	• Agenda 2063: The Africa We Want • African Union Climate Change and Resilient Development Strategy Action Plan • Mozambique Green Economy Roadmap	
Prolongs the lifecycle of clothing, fostering circular economy practices	• Circular Economy Action Plan • EU Strategy for Sustainable and Circular Textiles • Waste Framework Directive • Eco-design for Sustainable Products Regulation (ESPR)	• Agenda 2063: The Africa We Want • African Union Climate Change and Resilient Development Strategy Action Plan • Continental Circular Economy Action Plan (2024-2034) • Circular Economy Action Plan (Ghana) • Sustainable Waste Management Act (Kenya) • Mozambique green Economy Roadmap	
Contributes to effective and sustainable waste management, increases the share of recycled textiles	• European Green Deal • Circular Economy Action Plan • EU Strategy for Sustainable and Circular Textiles • Waste Framework Directive • Extended Producer Responsibility for Textiles • Waste Shipment Regulations	• Agenda 2063: The Africa We Want • African Union Climate Change and Resilient Development Strategy Action Plan • Continental Circular Economy Action Plan (2024-2034) • Circular Economy Action Plan (Ghana) • Sustainable Waste Management Act (Kenya) • Mozambique green Economy Roadmap	

What the industry does...	Contribution to Policies/Objectives in the Global North	Contribution to Policies/Objectives in the Global South	Contribution to Sustainable Development Goals
Provides affordable clothing options which frees up income for other expenses and contributes to the alleviation of poverty	• EU Development Policy		
Generates revenue and added-value without the use of (scarce) resources	• European Green Deal • Circular Economy Action Plan • European Industrial Strategy • EU Strategy for Sustainable and Circular Textiles	• Agenda 2063: The Africa We Want • African Union Climate Change and Resilient Development Strategy Action Plan • Continental Circular Economy Action Plan • Circular Economy Action Plan (Ghana) • Green Economy Strategy Implementation Plan (Kenya) • Mozambique Green Economy Roadmap	  
Creates decent job opportunities accessible for all genders	• EU Development Policy	• Agenda 2063: The Africa We Want	 
Facilitates international cooperation	• EU Development Policy		

6. SWOT ANALYSIS

In this chapter, we conduct SWOT analyses for the SHC industry in the Global North and in the Global South. We identify and evaluate the most important SWOTs for the SHC industry, thereby providing an instructive overview of the factors that affect the industry's current and future success. Factors are classified as strengths or weaknesses if they are internal to the industry and can be controlled or affected by relevant industry stakeholders. Opportunities and threats, on the other hand, are those factors that are external and cannot be controlled or affected from within the industry.

6.1. SHC INDUSTRY IN THE GLOBAL NORTH

TABLE 10: SWOT OVERVIEW IN THE GLOBAL NORTH

Strengths	Weaknesses
• Well-established industry with functioning upstream and downstream networks • Proven adaptability to market or regulatory changes • Sustainable and circular business • Value added without the use of additional resources • Creates economic activity across multiple sectors • Substantial employment opportunities in green jobs • Accessible employment opportunities • Competent sorting practices • Broad market • Significantly better affordability than new clothes • Financially sustainable	• Lack of automated sorting infrastructure and labour-intensive sorting processes • Transport-intensive industry • Risk for exports of poor-quality clothing ending up as waste • High dependency on third actors • Small profit margins of sorting centres
Opportunities	**Threats**
• Growing market for SHC expected • Ongoing image change in the industry • Advancing technologies in sorting or recycling • Integrated networks along the value chain • Industry is in line with EU policy objectives and might further be strengthened by regulatory changes • Continuous supply of clothing of appropriate quality	• Regulatory risks could hamper the industry's operations and create additional costs and burdens • Price increases could have severe negative effects due to highly price-elastic demand • An ill-defined end-of-waste criteria • Economic volatility and geopolitical tensions; vulnerable given, for example, transport routes • Increased consumption of fast fashion might disrupt both the demand and supply of SHC industry

• High job security, especially considering the EU Just Transition Mechanism • Offshoring of less efficient steps	• Lacking infrastructure and awareness for the collection of SHC industry in some regions

STRENGTHS

The SHC industry is a well-established industry with functioning upstream and downstream networks and structures tied together by common business interests. Because second-hand clothing is not produced in the same way as new clothing, the need to closely collaborate across the value chain is high. This ensures SHC reach the most suitable sales markets. As a result, the industry builds upon a sophisticated, collaborative value chain that spans across the globe, with actors across the stages of this chain closely working together because of common business interests.

The industry has proven to be very adaptable to changes in customer demands, regulatory changes, etc. SHC companies have, in the past, reacted efficiently to policy changes that affected the supply of used textiles, by swiftly adjusting collection, transportation, and sorting processes. Close coordination between retailers and sorting centres has allowed the industry to effectively cater to changing fashion trends in the collected clothing, as well as the ever-changing customer demands. Thus, adaptability is part of the industry's everyday work.

The industry's operations are sustainable and circular in nature. By matching collected, reusable clothing items with demand across the world, the industry extends the lifecycle of garments and significantly reduces the need for new, resource-intensive clothing. As has been shown, the industry has an incentive to maximise the share of reused clothes collected to optimise their revenue generation (see Chapter 2.3). At the same time, the larger the share of waste, the more costs the businesses have. Thus, the business model and the search for profitability drives the industry to operate in a sustainable and circular manner. With more than half of the collected clothes being currently reusable in their original form, the SHC industry is already exceeding the reuse and recycling targets of 65%, named as a goal for 2035 in the Waste Framework Directive (see Chapter 5.1).

Closely related, the SHC industry adds economic value without the use of new resources. It is a blueprint for decoupling economic activity from resource usage. The industry exemplifies that there are good business arguments for the circular usage of resources. As consumers supply the second-hand industry with used clothes by discarding unwanted garments at collection points, the costs and resources associated with material inputs are small. While the comprehensive sorting activities are central to the industry's ability to generate value, the resale of sorted clothes leads to the largest revenue streams and also facilitates the largest GVA contribution to GDP (see Chapter 2.3 and 4.1.1). Thus, economic value is generated out of discarded cloth without the need to waste additional resources for production.

The SHC industry creates economic activity across multiple sectors in the EU27+. In 2023, the SHC industry stimulated an estimated €7.0 billion GVA contribution to European GDP. With €3.0 billion being generated by the industry itself, it provides a sensible business case for enterprises in the Global North. By catering to a wide array of market segments, ranging from local thrift stores to high-end vintage shops, the SHC creates various markets for businesses to operate in. Moreover, €2.0 billion GVA were supported across the industry's supply chain and another €2.0 billion by the induced

channel. This suggests that for every €1 ($1.08) in GVA directly generated by the SHC industry, a further €1.34 ($1.45) supported elsewhere in the economy of the EU27+.

The SHC industry provides substantial employment opportunities in green jobs in the Global North. According to the U.K. Office for National Statistics (2023), all jobs that address the fields of recycling, repairs, and waste can be considered green jobs. As shown in Chapter 4.13.4, the SHC industry created an estimated 110,000 green jobs in the EU27+. With the volume of collection being higher in Western and Northern Europe, and sorting being more prevalent in Southern and Eastern Europe, the industry provides job opportunities for citizens across the entire EU27+. Additionally, the industry indirectly supports a further 40,000 jobs through procurement and consumption expenditures, again benefitting workers across the EU27+.

The industry offers accessible job opportunities, as applicants do not usually have to meet extensive formal education requirements. Whilst many of the tasks that workers perform are skill-intensive and require in-depth understanding of textiles and fashion trends (especially in the sorting and retail stage), workers throughout the industry usually acquire the skills and the knowledge necessary through on-the-job training. Thus, there are few formal barriers to jobs in this industry and—particularly in the sorting and retail stages—the industry's socioeconomic contributions are increased by enhancing the skill level of employees through on-the-job training opportunities.

The targeted on-the-job training further contributes to **competent and well-established sorting practices** in the SHC industry. Sophisticated sorting manuals and comprehensive trainings are complemented by a precise knowledge of the markets to which the clothes are exported. In designated, professional sorting centres, clothes are disaggregated into categories closely matching demands and preferences of wholesalers and retailers. Since the sorting process holds a pivotal role in transforming what might be perceived as "waste" into a valuable and sellable product, these well-established sorting practices are a key strength of the second-hand industry.

The **broad market and spectrum of clients** allows for an efficient matching of supply and demand of SHC and ensures that clothes are distributed to the place where they are most likely to be further used. Moreover, the second-hand industry's key product—sorted textiles— is sold from European sorting centres for reuse in Europe, in the Global South, as well as for industrial wiper production and recycling (see Chapter 2.3). These diverse customer markets diversify the industry's customer base. Moreover, there is already a significant customer demand in the most profitable market with up to 62% of consumers in the EU27+ having purchased SHC in the same year (Statista, 2023b).

Better affordability compared to new clothes constitutes another significant strength of the SHC industry in the Global North. By offering high-quality garments at a fraction of the cost of new items, second-hand stores provide an accessible fashion option for budget-conscious consumers often living in less prosperous regions. In a survey conducted in 2021 in Germany, 83% of respondents named the affordability as one of the two top reasons to buy SHC (Statista, 2022).[59]

The SHC industry in the Global North is financially sustainable, with the costs currently associated with collection and sorting being covered by the existing business model. Effective collaboration and

[59] 87% of respondents stated that they buy second-hand clothing because it is good for the environment.

division of labour across the different stages of the SHC value chain allow for economically viable operations without reliance on external support.

WEAKNESSES

A notable weakness is the lack in automated sorting infrastructure and the labour-intensive nature of sorting SHC. Sorting is a critical step in the SHC value chain, but it is relatively expensive in the Global North due to high labour costs. This is reflected by surveyed sorting centres reporting to make little-to-no profits, with labour costs making up the largest share of GVA generated by most sorting centres. This expense can make it less economically viable to process textile waste domestically. As a result, an increasing volume of textiles is sorted outside of Europe, with the Middle East, for example, serving as a key location (see Chapter 2.3 and 3.2).

Moreover, the SHC industry is heavily reliant on well-functioning transportation networks given its extensive value chain. The business model of the SHC industry is based on bringing a product that one consumer no longer wants (a piece of clothing) to another consumer that does still want and value that product. As these two different types of consumers are often located in different parts of the world, the necessary transport between them is usually quite extensive. Furthermore, even SHC that are intended for reuse within the Global North often need to be transported across borders to sorting centres in Eastern and Southern Europe where labour costs are lower. This makes the industry vulnerable to supply-chain disruptions and can create distributional difficulties.

Additionally, there is a risk for exports of poor-quality clothing to end up as waste. When second-hand clothes are sold to businesses in the Global South—even after extensive sorting—they often include a small share of waste that cannot be sold. Recent literature has shown that up to 4% of clothes imported into countries like Ghana and Kenya are waste (Circle Economy, 2023). Although this is a small percentage, the large overall volume of textiles exported means that a non-negligible amount of waste is transported to countries that often lack adequate waste management systems. This creates environmental and social challenges in the recipient countries, exacerbating issues related to local waste management and local pollution.

By design, the SHC industry has a high dependency on third actors such as consumers discarding clothes, customers, municipalities, and policymakers. Naturally, the quality and quantity of the SHC is based on the donated clothes. While the sorting facilities can increase the accuracy regarding potential recipients and can reconcile the different parts in the value chain with each other, they eventually rely on the voluntary and free of charge input by individuals donating clothes in the Global North. Moreover, municipalities' fees on locating collection bins directly affects the industry's profitability. In addition, the industry is also dependent on changes in the regulatory environment and changes in demand patterns adding to the dependency on customers and policymakers.

Another weakness are the **small profit margins often linked to sorting centres**. There are significant operating costs associated with the sorting of used textiles, whilst the demand is quite price-elastic (demand reacts strongly to changes in prices). For almost half of the textiles that sorting centres sort through, they cannot recoup costs and are forced to sell them at loss-making prices (this is true for all but "cream" and "second-best quality" reusables). The small profit margins might keep wages low, and

might also limit the industry's resilience to, for instance, changes to the supply of high-quality reusable textiles.

OPPORTUNITIES

It is expected that demand for SHC will continue to rise, as consumers are increasingly affected by sustainability considerations in their consumption choices. Research shows that sustainability strongly affects consumer preferences, with eight out of 10 consumers making sustainability-based purchases (Capgemini, 2021). SHC is perceived as an ethical consumption choice and is valued for its significantly better environmental impact compared to similarly priced fast fashion products. Sustainability considerations are said to be one of the key factors explaining why demand is growing in such a way that a SHC market size is forecast to increase by 77% between 2023 and 2028 (Statista, 2024).

Especially in the Global North, the industry could profit from an ongoing image change. Consumers prefer to buy used clothes over new clothes no longer just because of budget-consciousness, but also because SHC are increasingly perceived as unique, fashionable, and as a means for self-expression, according to our expert interviews and expressed in the growing market size. This image change will likely contribute to demand growth for SHC in the coming years, which is especially important since the profits made by selling SHC in the Global North are essential for the overall functioning of the industry's business model.

Investing in innovative sorting or recycling technologies could help the industry reduce operational costs or open new opportunities for the productive utilisation of used textiles. Automated sorting systems, for instance, could significantly reduce the labour intensity and cost of sorting operations. Investments in such technologies can make domestic sorting more economically viable and might be particularly important as the supply of used textiles to sorting centres is projected to increase as a result of policy changes (see Chapter 5.1), whilst the average quality of textiles will likely decrease. Other technological advancements, for instance around chemical recycling, could widen the scope of textiles considered recyclable and thus reduce the proportion of clothing classified as waste during sorting. This could decrease the amount of textile waste that ends up being landfilled or incinerated, and also drive up the industry's profitability, as sorting centres might be able to sell textiles for recycling that they formerly had to dispose.

Strengthening utilisation of integrated networks within the SHC value chain could help to further reconcile the requirements in the different steps along the value chain. For example, sorting facilities that belong to the same organisation as retail shops have a much better understanding of the clothing items required by the retail shops as the close collaboration is institutionalised. Therefore, they can continuously adjust their sorting patterns according to the realities of the retail stores and the (changing) local demand of customers. Particularly effective are partnerships between sorting centres in the Global North and wholesalers in the Global South in ensuring that only clothes suitable for local demand are exported to the Global South. Such partnerships also align well with SDG 17 to achieve sustainable development through close collaboration throughout the global value chain.

The SHC industry's business model aligns closely with EU policy objectives and could be further strengthened by regulatory changes, such as the introduction of EPR. As the EU aims to transition

to a circular economy, the SHC industry, which inherently follows a circular model, should be well-positioned for future economic transitions. Expected and already implemented regulations might further strengthen the industry. For example, the EPR mandates that producers take economic responsibility for the entire lifecycle of their products, including their end-of-life phase. While producers will likely not be involved in the handling of post-consumer textiles under the EPR, they will have to pay an EPR fee to compensate for the necessary end-of-life treatment. This increased accountability encourages fashion brands to incorporate sustainable practices, such as designing for durability and recyclability, and promotes the reuse and recycling of textiles. For the SHC industry, these regulations can lead to more profitable operations, as the industry may get compensated through EPR fees for handling post-consumer textiles. Properly assigning the EPR to entities placing new clothes on the market will partially finance the costs associated with collecting and sorting SHC, making both collection and sorting substantially more profitable and strengthen the overall industry. As highlighted by an interviewee affiliated with a European sorting centre, it is therefore crucial to place the responsibility on the original textile producer instead of categorising SHC items as a new product, which would counterintuitively shift the responsibility to the SHC industry.

It can be assumed that there will be a continuous supply of clothing of appropriate quality. With regulations for the mandatory separate collection of textile waste (see Chapter 5.1), or EPR schemes (see above) coming into effect in the near future, the volume of clothes available for the SHC industry is very likely to increase. Whilst the share of high-quality clothes in the total amount of clothes collected might fall (which would put additional pressure on sorting centres), the absolute amount of high-quality items can nevertheless be expected to go up. The growing share of environmentally aware fashion consumers, and the pressure to design products facilitating recycling and reusing process as per ESPR, will also contribute to a continuous supply of high-quality used clothes.

In light of the EU's Just Transition Mechanism, jobs in the SHC industry are characterised by a high job security. This mechanism is supposed to ensure that the transition towards a circular economy is inclusive and fair, and it aims to strengthen jobs in sustainable industries. Since jobs in the second-hand industry are considered green, the mechanism will likely strengthen the employment opportunities in the industry, making them secure and relevant for the foreseeable future.

There is the potential of offshoring less efficient steps in the SHC value chain, which in turn increases the effectiveness and hence profit margins in the industry. The sorting stage, for instance, is highly labour-intensive which is why costs could be significantly reduced by shifting sorting operations to countries outside the EU27+, where labour costs are lower. However, the feasibility of such a shift in operations is unclear as the EU might not permit the export of unsorted textile waste from European countries to countries in the Global South in its current form (see Chapter 5.1).

THREATS

An overarching threat that the SHC industry in the Global North is facing is regulatory risk. The Waste Framework Directive's obligation on the separate collection of textile waste by 2025, for example, may critically affect the SHC industry, as textile waste with no reuse value will also need to be collected. This would drastically reduce the profitability of collection and sorting companies, as they must collect and sort a higher volume of textiles with limited increases in profits. Thus, both commercial and not-for profit collectors, as well as the respective sorting companies, might need

economic compensation from governments or producers, mainly via an EPR scheme, to survive economically (JRC, 2021). As EPR fees will likely not be available before 2027, the transition may need extra support until EPR schemes are implemented, covering the additional costs associated to regulatory changes.

The EPR scheme could be associated with increased costs for businesses within the SHC industry. Interviewees explained that current discussions around the EPR scheme open up the possibility to apply EPR fees for imported SHC clothes placed on the market and simultaneously lower EPR fees for new clothes. The introduction of EPR-related taxes could constitute substantial additional operating cost for SHC businesses selling reusable clothing items, consequently decreasing incentives for a circular textile economy. As discussed above, it is therefore crucial to properly assign the EPR fees to the manufactures of new clothes.

Several interviewees also attested that the new WSR of the EU could potentially threaten the industry. Within the EU, the regulation will restrict exports of waste to non-OECD countries starting in 2027. Exports of EU waste to non-OECD countries will only be permitted if these countries notify the European Commission of their willingness to import the waste and prove their capability to manage it sustainably (European Commission, 2024g). This might limit the possibility of exporting collected textiles to intermediary countries such as the UAE, Oman, or India for sorting and processing. Consequently, the SHC industry in the EU27+ may increasingly depend on domestic sorting centres potentially facing higher labour costs, therefore reducing the profitability of operations.

While these regulations aim to enhance sustainability and are aligned with the EU's goals under the Green Deal, they may lead to **higher operational costs for firms that could get passed on and result in increased prices for consumers. As demand is highly price elastic (demand responds strongly to changes in prices), this could have severe negative effects on the industry**. Since affordability is one of the main reasons for consumers in Ghana, Kenya, and Mozambique buying SHC items, higher costs and prices might substantially decrease demand for these garments and therefore adversely affect the industry. As fast fashion was identified as competition offering cheap new clothes in both the Global North and the Global South by most interviewees, retailers might not be able to recover higher costs by raising their prices. Therefore, there is a possibility for new waste management and recycling regulations to run counter to the EU's policy objectives of promoting sustainability and circular economy principles by indirectly incentivising consumers to buy cheap fast fashion products instead of increasingly expensive second-hand garments.

Additionally, an ill-defined end-of-waste criteria poses a threat to the SHC industry. According to the WFD, certain designated waste materials are no longer considered waste once they have undergone a pre-defined recovery process (European Commission, 2024f). With the current expectation being that all collected textiles will be considered textile waste before undergoing a meticulous sorting process, the industry's ability to utilise sorting centres in non-OECD countries for more cost-efficient sorting will likely be affected. Even stricter requirements potentially seeing all SHC exports as "waste exports" (as discussed in a first version of the WFD) would completely negate the possibility to export SHC to countries in the Global South, removing an important revenue stream for sorting centres in the Global North. Moreover, this would effectively stop affordable SHC collected in the EU27+ from being available in the Global South entirely.

Economic volatility and geopolitical tensions also pose significant threats to the SHC industry. The SHC value chain is highly integrated internationally, spans long transport routes, and is thus subject to distortions. For example, the sanctions on Russia have disrupted a major market for SHC, leading to an oversupply of winter clothing that cannot be sold in the Global South. Additionally, the market experienced a post-Covid-19 boost that has since declined due to inflation and changing economic conditions. Especially demand in less prosperous markets where the purchase power is lower is therefore volatile. These uncertainties impact the stability and profitability of the industry.

Increased consumption of fast fashion clothing could disrupt both the demand as well as the supply of SHC. With fast fashion often being competitively priced, increased imports of fast fashion items could decrease the demand of consumers looking for affordable clothes. Simultaneously, the increase of fast fashion products might lead to a lower average quality of clothes available for the SHC industry. Fast fashion garments tend to be made of cheap fabrics that wear out quickly, have shorter lifespans, and are difficult to recycle. The increased consumption of clothing in the case of a fast fashion boom would therefore not necessarily translate to an increased supply of clothes suitable for the second-hand market, as the lower quality of new clothes also reduces the opportunities for reuse. At the same time, with the separate collection of textile waste being mandatory in the EU from 2025 onwards according to the Waste Framework Directive, textiles with no reuse value must also be collected (JRC, 2021), leading to higher collection rates but potentially lower demand from sorting centres within the EU. This would further disincentivise business from operating within the collection and sorting stage in the Global North, as high sorting costs would be met with lower revenue. Moreover, fast fashion exports from countries like China to the Global South further threaten the SHC industry in the Global North. Competition from fast fashion manufactures exporting to the Global South could decrease the demand for affordable SHC and therefore jeopardise an important revenue stream of the SHC industry.

The lacking infrastructure regarding collection facilities in some regions, combined with a lack of awareness for the collection of SHC, leads to a large share of textiles disposed of as residual waste. Leveraging the potential of the SHC industry crucially depends on various infrastructural and organisational conditions. In the EU, a substantial portion of textile waste ends up in general household waste rather than being specifically collected for reuse or other repurposing: in 2020, only about 1.95 million tons out of 6.95 million tons of textile waste were collected separately as textile waste, with the rest being discarded as mixed household waste. This leaves substantial room for improvement of the collection systems for textiles, with the average capture rate of textile waste in Europe as low as 12% (European Environment Agency, 2024). Although integrating textile collection into general household waste management has been proposed as a solution, experiences from Denmark indicate that the percentage of reusable clothes recovered from household waste is significantly lower (see Chapter 2.2). Therefore, this approach might not be economically feasible due to the lower profits associated with sorting mixed waste streams, which undermines efforts to increase the recycling and reuse rates as encouraged by the EU's CEAP.

6.2. SHC INDUSTRY IN THE GLOBAL SOUTH

TABLE 11: SWOT OVERVIEW IN THE GLOBAL SOUTH

Strengths	Weaknesses
• Properly paid employment opportunities, especially in formal part • Low-threshold business opportunities for local entrepreneurs • Provision of affordable quality clothing that meets local demands • Reduction of demand for new clothes • Contribution to social causes • Long-standing partnership between Global North and Global South • High adaptability towards changing supply • Large variety of value-adding activities	• Highly import-dependent industry • Asymmetries in market/bargaining power between different actors in the value chain lead to precarious employment in the informal sector • Lack of widespread, adequate waste management infrastructure • Unsatisfactory knowledge of recycling options • Less developed retail networks in rural areas Isolated reports of precarious working conditions
Opportunities	**Threats**
• Introduction of domestic sorting centres can generate value-added contributions and reduce landfill waste • Continuous demand due to significantly better affordability than new clothes • Job creation and skill development through local sorting and categorising of clothes • Potential for growth-stimulating collaboration between the SHC industry and local textile recycling and manufacturing companies • Supportive and adjusted legislation • Formalisation of the industry to increase visibility and accountability • Leveraging further potential for value-adding activities	• Influx of inexpensive fast fashion clothing imports • Vulnerability towards economic fluctuations in the Global North and Global South • Higher costs due to import tariffs • Geopolitical tensions that might affect and disturb global trade • Regulatory changes in Global North and Global South • Lack of infrastructure and market for textile waste • Lack of an agreed-upon definition of textile waste that might distort the public image of the industry

STRENGTHS

There are several strengths relating to the SHC industry—and the trade with SHC in particular—in the Global South.

In Ghana, Kenya, and Mozambique, the SHC industry supports numerous, properly paid jobs at various stages of the value chain. We estimate that in Kenya, for example, more than 100,000 formal and informal jobs were sustained within the domestic SHC industry through the SHC trade with the EU27+. Especially in the formal sector, these jobs are often properly paid. Our findings suggest that the permanent full-time employees of formal wholesalers and retailers earned monthly average wages lifting them way above the country's poverty line (see Chapter 4.2.3). These jobs span from

wholesalers importing and distributing bales of clothes to informal retailers selling individual garments in the local markets. The industry enables these traders to earn a living and to support not only their livelihood, but also several dependents; interviewed informal traders reported supporting an average of five family members with their income from the second-hand industry (see Chapter 4.2.3). Therefore, the employment generated helps alleviate poverty by offering income-generating opportunities to those who might otherwise be unemployed or underemployed.

Next to the employment contribution, the demand for SHC in the Global South creates substantial, low-threshold business opportunities for local entrepreneurs. The SHC market in countries like Ghana, Kenya, and Mozambique is deeply integrated into the local, often informal, economy. Setting up an informal business can be as simple as going to a wholesaler, buying a bale of clothing, and starting to resell it on the market. As shown in Chapter 2.5, the largest part of imported SHC in all three countries was sold to informal actors, generating business opportunities for many informal retailers. Consequently, by providing jobs and raising economic activity in the Global South, the SHC industry substantially contributes to SDG 8 by providing many formal and informal work opportunities and facilitating economic growth. However, access to finance is still a challenge, especially for informal retailers (see Chapter 4.2.3).

SHC further provides an important source of quality affordable clothing for lower-income populations in the Global South. By providing quality garments at low costs, the trade with SHC makes clothing accessible to a wide demographic, ensuring that even those with limited financial resources can purchase necessary garments. This affordability plays a crucial role in improving living standards and enabling consumers to allocate more of their limited income to other essential needs such as food, healthcare, and education. Around 86% of the customers of SHC traders we interviewed in Kenya, Mozambique, and Ghana agreed that the leading reason for purchasing SHC was affordability. Furthermore, 68% of interviewed customers mentioned that SHC have a higher quality than new clothes, provide a wider variety of options, and are more unique compared to new items. Thus, SHC provides quality clothing at affordable prices, especially for those living in poverty, and thus greatly contributes to SDG 1.

The existence of the SHC industry in countries in the Global South reduces the need for new clothing production because SHC can compete with the low prices of fast fashion while offering better quality. According to a survey conducted in Kenya in 2022, used clothing costs three to five times less than locally manufactured clothing items (Dissanyake & Pal, 2022). As emphasised in Chapter 4.2.3, the reuse of textiles contributes to waste prevention and environmental sustainability goals by mitigating the need for new clothing production, contributing to SDGs 12 and 13 on responsible consumption and climate action. Furthermore, the SHC industry reduces waste not only by facilitating the reuse of existing clothes, but also by reducing the waste resulting from new fast-fashion garments that will eventually be thrown away as well. The environmental footprint of reused textiles is assumed to be up to 70 times lower than that of new clothing (European Recycling Industries' Confederation, 2023).

The SHC industry in the Global South contributes to important social causes by providing funding for social causes from not-for-profit organisations. The SHC industry enables not-for-profit organisations to generate revenue through the trade with used textiles which is often used to fund social causes that align with the EU Development Policy. For example, the profits from selling

SHC can be used to deliver development initiatives in agriculture, education, and health, and to provide humanitarian aid (ADPP Mozambique, 2024). Hence, SHC is an important contributor to the promotion of social causes and initiatives.

The SHC industry in Africa benefits from long-standing partnerships between the Global North and the Global South. Because second-hand clothing is not produced the same as new clothing, the need to closely collaborate across the value chain is high. This ensures that SHC reach the best suitable sales markets. For example, established trade relationships between the EU27+ and Ghana, Kenya, and Mozambique facilitate smooth transactions and build trust between trading partners. As highlighted by many stakeholders across the three selected African countries, trust and reliability in these relationships ensure that both suppliers and recipients can plan and execute their business activities with confidence, fostering a stable trade environment. Rigorous sorting processes in the EU27+, for example, ensure a supply of relatively high-quality SHC to the respective markets through close cooperation between wholesalers in the Global South and sorting centres in the Global North. This structure aligns well with SDG 17, showing that global partnerships are essential for achieving the SDGs.

The industry exhibits a high adaptability towards changing supply, which is partly due to the agile economic structure that is characterised by a high share of entrepreneurs running small businesses. In the case of small businesses, but also for larger, integrated companies like Humana or Sympany+, there is a close connection between the different steps along the value chain in the Global South. The sales of clothes to consumers can be adjusted immediately to, for example, changes in the availability of certain types of clothes from wholesalers. Hence, the industry can swiftly react to changes in supply.

In the SHC industry, there is a large variety of value-adding activities. In the Global North, value-adding activities are predominantly conducted via the sorting and appropriate matching of the existing supply with expected demand. In the Global South, a variety of measures can increase the value of clothes and hence the revenue and profit for businesses. Those are, for example, alterations of the textiles (upcycling/repairing), ironing the piece of clothing, or displaying it appealingly. For local entrepreneurs, this creates a lot of scope for increasing the profitability of their businesses. In the SHC industries of Ghana, Kenya, and Mozambique, for example, formal wholesalers and retailer contribute an estimated $35 million, $9.2 million, and $2.7 million, respectively, in GVA to the domestic economy. This contribution would be even larger if value-adding activities of informal actors were included.

WEAKNESSES

A major weakness of the SHC industry is the dependence on imports. With large parts of the population in the studied countries only being able to afford SHC, importing countries rely heavily on the external supply of clothing. 81% of surveyed (importing) wholesalers perceive high import costs as a major challenge in their industry (see Chapter 4.2.3). Thus, the import dependency subjects the industry to external economic shocks and policy decisions. This makes the overall clothing market in the Global South vulnerable to changes in their own countries' domestic import policies (such as import duties) as well as policies in the Global North over which the importing countries have no control, such as environmental regulations in the EU. However, it is important to add that the supply of new clothes as a substitute for SHC would also be highly import-dependent in many countries.

The informal traders and their employees, who make up a large share of the industry, face a high degree of economic insecurity and have disproportionally little bargaining power compared to other actors along the value chain. While the thresholds for setting up a business as an informal trader are low, allowing many to enter the market, these traders often encounter significant economic hardship and uncertainty. Their profits are heavily reliant on the quality of clothing bales they receive from (importing) wholesalers, who often act as oligopolists with few competitors due to the high fixed and starting costs associated with importing clothes from the Global North, distributing them, etc. As a result, wholesalers hold significantly more bargaining power than informal traders, who, if they do not organise in associations, have little means of influencing the quality of bales or their prices, leaving these traders in a vulnerable economic position.

Another weakness of the SHC industry is the lack of widespread, adequate waste management infrastructure in many recipient countries. Even though recent studies (Circle Economy, 2023) have revealed that only a relatively small fraction of SHC imports can be considered waste (around 4%), this still amounts to a non-negligible absolute amount due to the high volume of overall imports. While the general lack of waste management systems is not specific to the SHC industry, it does substantially impact the industry's ability to handle waste. As outlined in Chapter 4.3, this problem is compounded by insufficient sorting facilities in some importing countries. This negates the possibility of filtering out the remaining waste included in the imported bales in a centralised place with better capacities to dispose of the waste properly. As a result, countries importing SHC are often not equipped to handle any accruing waste when relying on their inadequate waste management infrastructure.

The industry has an unsatisfactory knowledge of recycling options in the Global South. Textiles that cannot be worn or repurposed in some other direct ways are oftentimes simply discarded. Even though these textiles might still be recyclable and could be used, for instance, as fill material for wiper production, etc., they may be perceived as waste that lacks economic value: Our findings suggest that, especially for formal retailers, repurposing/recycling as well as fixing and altering SHC is less preferred than donating or discharging the clothing (see Chapter 4.3). A finding from Nairobi confirmed that only 24% of survey respondents knew of the importance of textile recycling programmes (Diamond, 2023a). While selling used textiles as, for example, wipers—or as inputs for wiper production—may not result in profits, it would help to recover the costs associated with importing SHC. Thus, the lack of knowledge on textile recycling exacerbates waste problems and leaves economic potential untapped.

There are some reports that jobs in the informal part of the second-hand industry offer precarious working conditions. Some of the work opportunities associated with the industry are more prone to precarious work conditions, such as those of the female head porters in Ghana. These female porters are often subjected to abuse and poor working and living conditions according to one interviewee. Given the informality of their work, they do not benefit from minimum wage and other protections provided in local labour laws (Foundation for Women's Health, Research & Development, 2018). In addition, although no children were observed working in the markets that were visited to conduct customer and informal retailer interviews, one informal retailer in Ghana openly admitted to employing two children under the age of 14, working 50 hours per week. Although this is not the rule, precarious working conditions are mostly prevalent in the informal sector, discrediting the image of the entire industry.

The industry's retail networks in the Global South are less developed in rural as opposed to urban areas. Trade and formal retail networks are a lot more developed in urban areas. Rural areas, on the other hand, are supplied with affordable SHC often only irregularly by informal traders, or not at all. This disparity creates a significant gap in access to goods and services, limiting the economic growth and consumer choices available to rural populations. As a result, the untapped economic and social potential in these areas remains largely unexploited, stunting the overall development of the region.

OPPORTUNITIES

With the import of textile waste into the Global South being the most prominent critique against the trade with SHC, the **introduction of domestic sorting centres offers an opportunity to add further value to the SHC industry and to reduce textile waste ending up in landfills in the Global South**. Even though only up to 4% of SHC items imported into Ghana, Kenya, and Mozambique are waste, this still constitutes a large amount potentially ending up in landfills. By establishing local processing and sorting facilities, wholesalers have an opportunity to filter out those textiles that constitute waste before they are sold to formal and informal retailers that might lack the appropriate capacities for handling textile waste. Importantly, new legislation such as the EU's EPR would potentially allow wholesalers to recover some of the costs associated with filtering out textile waste from the imported bales. Wholesalers could charge higher prices following a detailed sorting and categorisation of clothes, by ensuring that retailers only purchase resalable items and garments fitting their customers' demands. This would allow retailers to generate higher and more certain profits, in turn enabling them to pay higher prices for the purchased clothes. Improved product description and communication between sorting centres and importing wholesalers could also reduce the amount of unsellable items being imported in the Global South.

There is a continuous demand for SHC due to its better affordability compared to new clothes in the Global South. By offering quality clothing at lower prices, the second-hand industry can cater to a large market segment, including consumers with limited purchasing power who cannot afford new garments. With rising inflation pressures, affordability becomes even more critical, further solidifying the second-hand industry's stable demand and giving it a crucial and persisting competitive advantage over suppliers of new, more costly clothes.

Local sorting and categorising of clothes can create jobs and foster skill development, contributing to economic diversification and resilience. As discussed in Chapter 2.3, sorting is a labour-intensive procedure and requires substantial training. A sorting centre in Mozambique, for example, trains their employees for up to three months before allowing them to independently sort imported clothes. Furthermore, retailers might train their employees to engage more effectively with their customers and improve sales performance. Thus, investing in training for workers, especially in sorting and retail operations, can improve product quality and worker productivity. This, in turn, boosts the industry's profitability and attractiveness to local consumers, while at the same time offering opportunities for vocational training and decent work for the local population, further contributing to SDGs 4 and 8. Moreover, with sorting centres often perceiving women to be better sorters, establishing local sorting facilities would contribute to SDG 5 as well, by specifically creating employment opportunities for women.

There is a high potential for growth-stimulating collaborations between the SHC industry and local textile industries, including textile recycling companies. For example, if importing wholesalers would undertake further categorisation of imports, they could sort out garments that could not be sold for reuse on domestic markets and sell them to recycling companies instead. The added feedstock of recyclable material would likely foster the development of the currently underdeveloped recycling industry in the Global South. Recycled materials could then further be sold to local textile manufacturers, illustrating how large-scale textile recycling contributes to a new "ecosystem around fashion waste" that would support thousands of jobs along the value chain (Tony Blair Institute for Global Change, 2021).

Supportive legislation represents another crucial opportunity for the industry. If governments in the Global South increasingly recognise the economic and environmental benefits arising from the trade with SHC, governments could support the domestic industry through favourable policies. For example, all participating interviewees and experts proposed lower import taxes as an effective way to support their businesses. Additionally, incentives for recycling and upcycling initiatives and grants for local entrepreneurs could create a more favourable business environment, and strengthen the industry. Bilateral agreements and trade policies also offer a pathway to strengthen and stabilise the SHC trade. As discussed in Chapter 3.4, agreements like AGOA provide frameworks that can be expanded or adapted to enhance trade benefits for SHC. Strengthening these agreements can provide more predictable market conditions and reduce trade barriers, allowing for easier and increased imports of affordable clothing items.

There is a significant potential for the formalisation of the industry to increase visibility and accountability. The formalisation could enable a robust and comprehensive quantification of the economic benefits, employment opportunities, and environmental potential of the SHC industry in the Global South. This, in turn, could increase the relevance in policymaking and enable the actors involved, for example, small business owners or informal traders, to gain visibility in political discourse. Moreover, the employment opportunities in the formal sector are more secure, better paid, and less prone to precarious working conditions, as our analysis has shown. Formalising the sector therefore also has socioeconomic advantages worth considering.

It is possible to leverage further potential for value-adding activities. Providing training programs/educational videos that instruct workers on how to improve their sorting skills, or how they can create the maximum amount of revenue from their clothing bales (e.g., by performing simple value-adding activities like ironing/washing clothes or selling leftover garments to tailors and repairers), could bring about significant increases to their income. Our analysis has shown that 22% of informal retailers throw away SHC still suitable for reselling. Moreover, building more local sorting facilities could also increase the value-added contribution of the sector in Ghana and Kenya.

THREATS

The influx of inexpensive fast fashion clothing imports from countries like China poses a formidable, competitive threat. These garments are often competitively priced and can therefore undercut the demand for SHC—at least for customers less responsive to the lower quality associated with the fast fashion clothes. Thus, according to nearly all interviewees, fast fashion poses a significant challenge to the second-hand market in the studied countries. With informal retailers being dependent on the already limited profits, this adversely affects the livelihood of many traders and

their dependents. Moreover, by shifting consumer preferences away from second-hand goods and increasing new textile production, the rise of fast fashion imports in the Global South directly runs counter to global policies promoting responsible consumption and sustainability.

Global economic downturns in the Global North and the Global South can have severe effects of the second-hand industry in the Global South. Since the SHC industry is fundamentally dependent on consumers discarding their clothes, global economic downturns can affect this industry more strongly than others. Economic downturns in exporting countries can lead to a decrease in the volume of collected used clothing, decreasing the amount of SHC available for export. Simultaneously, economic instability in importing countries can diminish consumer spending power, affecting the demand for SHC. For instance, several interviewed stakeholders in Kenya or Mozambique have named reduced spending power since the beginning of the Covid-19 pandemic as one reason for decreasing revenues in the domestic SHC industry. The low-income population in the Global South is particularly affected by these fluctuations: As reported by many consumers during our on-site observations in Ghana, Kenya, and Mozambique, consumers depend on the affordability of SHC to pay for other necessities such as food and rent. Worsening global economic conditions could therefore particularly affect the poor by reducing the availability of affordable clothes.

The issue of implementing or increasing import tariffs is widely discussed in the political landscape and is associated with the risk of higher costs due to these import tariffs. Already in the past, the implementation of these taxes took place. To support local manufacturing of clothes, and to reduce the amount of imported waste, many countries have adopted import bans or restrictions on SHC. In Mozambique, for example, a surcharge of roughly €0.36 per kg of imported SHC has been introduced on top of the already existing import duty of 20%. This has resulted in substantially higher costs for importing wholesalers and has raised prices on SHC in these countries, limiting affordability. Moreover, it is questionable whether regulations on SHC imports improve conditions for the local industry. With fast fashion producers exporting new, cheap clothes to the Global South, the local textile industries are often unable to compete with market prices. Therefore, import regulations in the Global South do little to support the local industry and consumers, while simultaneously hurting the SHC industry.

Additionally, the rise of geopolitical conflicts threatens the trade with SHC. As seen during the ongoing conflicts in Gaza and the Red Sea, trade routes may have to be altered substantially to facilitate the safe transport of clothes to the Global South. For example, importing wholesalers in Kenya and Mozambique reported that they had to pay substantially more for transport due to longer trading routes resulting from these conflicts. A subsequent increase in purchase prices for retailers may result in either lower profit margins, affecting the livelihoods of the thousands of workers within the formal and informal SHC value chain, or result in higher clothing prices for the population, large parts of which precisely rely on the affordable pricing of second-hand prices.

Regulatory changes both in the Global North and Global South also pose a significant threat to the industry. Various countries in the Global South, for example within the EAC, have considered or implemented bans and increased tariffs on imported SHC to protect their local textile industries (see Chapter 3.4). In Mozambique, for example, a surcharge specifically on SHC was introduced which substantially increased the cost of importing SHC. Such regulatory measures can drastically reduce the volume of trade, disrupt established business models, and potentially force formal and informal

retailers to close their businesses, as reported by many actors during our fieldwork in Ghana, Kenya, and Mozambique. Regulatory disruptions can also originate from the Global North: as discussed above, certain EU regulations have the potential of significantly straining the European SHC industry which would, in turn, also lead to a decrease in the influx of high-quality textiles from the EU27+ to the Global South.

In the countries part of this study, but also in other countries in the Global South, there is a lack of infrastructure and market for textile waste. This results in unsold textiles and textile waste stemming from both new or reused clothes often being disposed of in ways harmful to the environment and public health, such as by burning, or dumping in rivers or improperly managed landfills. The absence of a robust market for textile waste also limits opportunities for recycling or repurposing, which could otherwise create additional revenue streams. Moreover, the lack of infrastructure for waste management might threaten the supply of used clothes, as European regulators move towards making infrastructure a prerequisite to exports of used textiles from Europe to countries of the Global South (see Chapter 5.1). Lastly, almost 70% of consumers throw second-hand cloth away to dispose of them. This lack of consumer awareness intensifies the problems associated with a lack of waste infrastructure.

The lack of an agreed-upon definition of textile waste threatens to negatively distort the public image of the SHC industry and might also lead to hampering supply from the Global North. Studies that examined the amount of waste that the SHC trade produces have often adopted differing definitions of waste. Resultingly, study findings might easily be misinterpreted and might be difficult to cross-compare. While some estimate the share of waste based on the share of unsold items in each bale—which includes even high-quality clothing items—others refer to those items that are considered unsellable by the respective traders (see Chapter 4.3). Studies adopting the very broad waste definition overstate the waste challenge created by the industry, which can lead to an unfavourable public and political perception of the industry. Regulators both in Europe and Africa might respond with unreasonably hard measures (export/import bans, surcharges, tariffs, etc.) to combat a possibly overstated or misunderstood waste problem.

7. POLICY RECOMMENDATIONS

Based on the SWOT analysis, we derived recommendations for policymakers, as well as businesses and not-for-profit organisations active in the second-hand industry, for promoting sustainable economic activities—both in the Global North and the Global South, i.e. Ghana, Kenya, and Mozambique.

7.1. POLICYMAKERS

GLOBAL NORTH

Implement and strictly enforce EPR schemes for new textiles. EPR holding producers responsible throughout a product's lifecycle will ensure costs for collection, recycling, or disposal of textiles are borne by the original producer, incentivizing the design of more sustainable and recyclable clothing. Well-designed EPR schemes would likely also facilitate collaboration between producers and the SHC industry, which would lead to a more robust supply chain for the latter. Properly assigning the EPR to producers of new clothes—and especially not subjecting SHC to EPR fees by imposing them on the sale of SHC—can contribute to making collection and sorting financially sustainable for SHC industry stakeholders (see Chapter 5.1 and 6.1). If reusable textiles are mixed more and more with textile waste, the share of quality textiles will decrease per tonne collected, resulting in less profitable operations. Thus, both commercial and not-for profit collectors, as well as the respective sorting companies, might need economic compensation from governments or producers, via EPR legislation, to survive economically (JRC, 2021).

Develop clear end-of-waste criteria for textiles to enable SHC exports and prevent the export of textile waste to the Global South without hampering the industry. By establishing clear and stringent guidelines on sorting, as well as end-of-waste criteria that clearly differentiates SHC from waste, the EU can help recipient countries ensure well-sorted clothing is arriving from the EU (see Chapter 5.1), whilst also creating continued business opportunities for companies exporting reusable textiles to the Global South. The SHC industry can support in drafting transparent and well-established rules for sorting procedures to ensure that only appropriate quality items enter the market.

When evaluating the WSR, it is crucial to consider the potential consequences for both employment and poverty alleviation in the Global South. As highlighted in Chapter 5.1, the WSR poses a risk to the second-hand industry, which is a major source of employment and provides well-paid jobs in these regions. By restricting the flow of used textiles to non-OECD countries that perform parts of the sorting activities for collected textiles, the WSR could inadvertently undermine the EU's Development Policy objective of reducing poverty. To mitigate this trade-off, policymakers could consider granting exceptions to the WSR for certified local sorting centres in the Global South and intermediary countries if they can manage their waste properly. These exceptions would allow the continuation of the SHC trade while ensuring that sorting practices meet environmental standards. Moreover, this approach would support the economic and social objectives of both the WSR and EU Development Policy, balancing environmental concerns with the need to sustain livelihoods and alleviate poverty in developing regions.

Support or encourage research and development in advanced sorting and recycling technologies. Investing in and fostering innovative technologies, such as automated sorting systems for recyclable textiles and chemical recycling, can significantly increase the operational efficacy and reduce the costly labour intensity within the SHC sector (see Chapter 4.1.1 and 6.1). Technological advancements in these areas would be valuable as policy changes (mandatory separate collection of textiles, EPR schemes) will lead to a growing supply of textiles with a higher share of low-quality garments, which threatens the profitability of collection and sorting efforts within the SHC industry (see Chapter 5.1 and 6.1). While categorising reusable textiles into sales markets will likely remain manual as it requires a deep knowledge of the market, the first filtering of textiles for waste and the automatic sorting of recyclable textiles can support the second-hand industry's profitability. Further technological advancements in the future might even open possibilities for automatic sorting of reusable SHC.

Incentivise or promote the reuse of clothes over the purchase of new clothes. While the reuse of clothes is associated with both environmental benefits and the support of local economies, affordability remains among the top reasons for buying SHC even in the Global North. To facilitate the range of benefits associated with SHC, consumers should be incentivised to purchases SHC by, for example, reducing VAT on SHC or discounting repairs of used clothes.

Acknowledge that the SHC industry is a driver of green jobs. It is important to recognise that the SHC industry creates many employment opportunities while relying on little to no new resources. Therefore, the SHC industry directly promotes a circular economy, including the creation of green jobs. Keeping this in mind when drafting regulations can support the overall goal of supporting green jobs.

Engage with various stakeholders in the Global North and the Global South. With the SHC industry in the Global North depending on the sale of clothes to all markets—including those in the Global South—it is important to understand the SHC industry from a holistic point of view, including the challenges of different actors along the value chain. Furthermore, discussions with wholesalers and retailers in the Global South could inform the design of policies and regulations to better achieve environmental policy objectives and development goals of the EU.

GLOBAL SOUTH

Introduce supportive legislation to relax import regulations for SHC. As import taxes and SHC surcharges constitute a substantial part of the costs of wholesalers (see Chapter 2.5 and 4.2.1), policymakers could make the pricing of SHC more affordable for the lower-income demographic by reducing import barriers and bureaucratic hurdles. This would be especially sensible in light of the findings that suggest that import tariffs and/or bans on SHC do little to support local manufacturing and rather benefit fast fashion producers (see Chapter 6.2).

Encourage the establishment of local sorting and processing facilities. Investing in local sorting, such as in Mozambique, will foster job creation, support skill development, and contribute to economic diversification in communities. By locally categorising and processing SHC, policymakers can partake in the global value chain more effectively and better ensure that textiles which could not be resold on domestic markets are not disposed of in unsustainable ways (see Chapter 4.3). Sorting centres could sell such textiles directly to recycling companies or they could transport textiles to

properly managed landfills. Therefore, the establishment of local sorting centres could further strengthen the local recycling industry or incentivise the establishment thereof. As the labour costs tend to be lower in countries of the Global South, domestic sorting would also reduce operational costs and likely increase the affordability of SHC for retailers and consumers. As discussed, however, outsourcing the sorting stage to the Global South also requires the establishment of a more effective waste management infrastructure.

Create incentives for businesses to enter the formalised sector. Offer incentives to the many small, entrepreneurial business owners to enter the formal economy, as this can positively impact GDP, increase tax revenues, and increase decent employment opportunities. As the analysis shows, employment in a formalised sector tends to be more secure, better paid, and less vulnerable to precarious working conditions. This not only improves the livelihoods of workers but also contributes to broader socioeconomic stability and development in the region. Therefore, the formalisation of the SHC industry is a strategic move that aligns with the goals of poverty alleviation, sustainable development, and inclusive economic growth.

Increase investments in textile recycling infrastructure to reduce overall waste and create additional economic value. Establishing advanced recycling facilities can turn unsold textiles that would otherwise simply be disposed of into raw materials for new products (see Chapter 6.2). Policymakers should support collaboration between the SHC industry and, for instance, local textile manufacturers who could use recycled raw materials for creating new products, thereby preventing textile waste, supporting local industries, and creating job opportunities. This could also benefit the local textile industry as importing fabrics, while exporting cotton, is a major weakness of the African textile and garment manufacturing value chain (Xiaoyang, 2014). Investing in locally made, recycled textiles could therefore also benefit the local textile industry.

Develop effective waste management infrastructure. Policymakers in the Global South should prioritise establishing efficient waste management entities to handle unsold textiles and textiles at their true end-of-life, and to reduce the environmental impact of textile waste. The lack of such infrastructure not only threatens the environment and public health but also puts the SHC industry in jeopardy. Despite the many positive socioeconomic contributions of the industry, its reputation with policymakers in both Europe and Africa suffers because it creates challenges in the Global South that are mainly general waste management issues (see Chapter 4.3). Without appropriate waste management capabilities, domestic sorting will also be threatened, because the EU's Waste Shipment Directive will ban exports of unsorted textiles to countries which cannot prove their capacity to handle waste appropriately and sustainably (see Chapter 5.1).

7.2. BUSINESSES/NOT-FOR-PROFIT ORGANISATIONS

GLOBAL NORTH

Develop integrated partnerships within the supply chain for streamlined operations. Enhanced coordination between collection centres, sorting facilities, and retail outlets can ensure efficient matching of supply and demand, reduce waste, and improve the overall profitability of businesses within the SHC market (see Chapter 2.3-2.5.; 5.3; and 6.1). The case of Humana has shown that running own sorting facilities makes the whole value chain more effective.

Set up e-commerce platforms to reach wider audiences. Digitalising the retail process can significantly expand market reach and cater to a broader consumer base. With more than 70% of EU consumers who make online-purchases ordering clothes online, e-commerce provides a large customer base for SHC (Statistisches Bundesamt, 2024). Moreover, e-commerce eliminates geographical constraints and could make affordable SHC a viable option in more rural areas, where setting up physical retail shops might not be economically feasible (see Chapter 6.1).

Engage in public awareness campaigns to promote the environmental benefits of disposal for reuse and purchasing SHC. By educating the public on the reduced environmental footprint of SHC compared to new products, organisations can increase consumer participation and support the broader goals of sustainability and circular economy (see Chapter 4.3, 5.1, and 5.3).

Educate the public on the right to adequate clothing as a human right. With many people around the world lacking access to adequate clothing, raising the public's awareness on this issue and on how the SHC industry supports the right to clothing may change consumer's willingness to actively discard used clothes through designated collection points, consequently increasing the volume of collected clothes.

Invest in modern sorting technologies to increase efficiency and reduce labour costs. Advanced technologies such as automated sorting systems can help streamline operations, reduce the labour intensity of sorting, and decrease operational costs. Such investments can improve overall efficiency, and help sorting companies to process textiles in a financially sustainable way. As discussed above, such technology would be especially valuable given expected increases in the amount of textiles that sorting centres will have to process, of which more is likely to be low-quality (see Chapter 5.1). With automated sorting systems handling the separation of lower quality textiles for recycling, labour-intensive manual sorting centres would be able to focus solely on the sorting of reusable SHC.

GLOBAL SOUTH

Invest in local sorting and processing facilities to enable a better matching of supply and local demand. Second-round sorting by (importing) wholesalers increases the quality of clothing bales, as textile waste can be filtered out and clothes can be categorised and closely aligning with local demand, trends, etc. Not only does this help retailers, as second-round sorting reduces the amount of clothes that they are unable to sell and that accrues as waste (see Chapter 4.3), it also allows wholesalers undertaking the sorting to charge higher prices for their clothing bales due to a higher share of valuable items, possibly increasing their profit margins.

Establish associations representing informal market retailers to push back against asymmetries in market and bargaining power. Despite playing a pivotal role in the SHC value chain, informal market traders are usually very reliant on the quality of bales and the prices wholesalers ask for them (see Chapter 2.7 and 4.2.3), without having any means of influencing these variables (see Chapter 6.2). Trade associations could give informal traders a voice for advocacy and allow them to engage in collective bargaining with other market players. This could significantly improve their market power and give them more economic security. Such associations would also be well-positioned to provide vocational training programs for members.

Provide vocational training programs for workers and employees. Training workers in skills like sorting, repairing, or upcycling of textiles, or retail business strategy can significantly improve the profitability of (informal) businesses. The additional revenue that businesses or workers can generate through these value-adding activities can help them earn more stable incomes and decrease their economic vulnerability (see Chapter 2.7 and 6.2).

Promote eco-friendly practices including textile recycling. Businesses and retailers in the SHC industry should focus on sustainable practices, including recycling non-reusable textiles to reduce waste and their environmental footprint. Partnering with local textile recycling firms can harness the full potential of otherwise unusable garments, helping to create secondary raw materials and additional revenue streams. Such efforts would closely align with policy goals aiming at strengthening circular economy principles and sustainable waste management (see Chapter 5.2). Garments that can neither be reused nor recycled should be disposed in organised and appropriate waste facilities.

Explore options to extend trade and retail networks to more rural areas. Extending the reach of distribution channels can ensure that rural populations gain access to affordable SHC (see Chapter 6.2). Whilst the economic feasibility of supplying poor, remote regions is not certain, these options should nevertheless be explored to ensure that no economic potential is left untapped.

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APPENDIX: DETAILED METHODOLOGY

EXPLORATORY INTERVIEWS

Exploratory expert interviews were conducted to gain a better understanding of the entire second-hand trade value chain. Therefore, at least one interview with a typical stakeholder per stage of the value chain, i.e., collection, sorting, trading and transport, categorisation in the Global South, and local retailers/market traders, took place. An overview of the 12 interviewees' role and their corresponding role in the value chain is shown in Table 12.

For the recruitment of the interview partners, we depended on Humana's support in identifying relevant interview partners and in establishing the first contact. Afterwards, we independently organised and conducted the interviews.

TABLE 12: OVERVIEW OF INTERVIEWEES

No.	Role and company	Stage	Relation to HPP and/or Sympany+
1	Reuse and recycling advisor, UFF-Humana	Collection	HPP employee
2	Head, Humana Italy	Collection	HPP employee
3	Head, Humana Bulgaria	Sorting in Europe	HPP employee
4	Head, Humana Baltics	Sorting in Europe	HPP employee
5	Trade Manager, Garson&Shaw	Transport to Africa	Not affiliated with HPP
6	Shipping Agent, Kenyan shipping agency	Transport to Africa	Not affiliated with HPP
7	Sorting advisor, Malawi Service Station (HPP)	Second-round sorting in Africa	HPP employee
8	President, Boer Group	Second-round sorting in Africa	Not affiliated with HPP
9	Head of sorting centre, Baltic Textile Trade Oman	Second-round sorting in Africa	HPP employee
10	Programme officer, ADPP Mozambique	Second-round sorting in Africa & Local Retailers/Market Traders	HPP employee
11	Kenya Director, Baltic Textile Trade Kenya	Local Retailers/Market Traders	HPP employee
12	Regional Commercial Director, Baltic Textile Trade	Local Retailers/Market Traders	HPP employee

The interviews were conducted online, recorded, and analysed. They lasted around one hour, were conducted in English and in Portuguese (if requested). The interview partners were informed that they would remain anonymous to encourage their participation.

QUANTITATIVE SURVEY

The GSM requires detailed data from the various actors involved the value chain of SHC. To gather this data, we conducted a quantitative survey that targeted actors in all stages of the value chain. In addition, we included questions in the survey that helped us to better understand the social contribution of different actors across the value chain.

Again, we required Humana's support to recruit participants for the survey. We envisioned that a minimum of three participants were required per stage to ensure reasonable robustness. However, fewer participants took part in the survey. The surveys were conducted using Excel templates.

TABLE 13: OVERVIEW OF SURVEY RESPONDENTS

No.	Company/Respondent	Stages	Relation to HPP and/or Sympany+
1	ADPP Vestuário	Wholesale, Sorting, and Formal and Informal Retail in Africa*	HPP
2	Baltic Textile Trading Ltd.	Wholesale and Formal Retail and Informal in Africa*	HPP
3	Baltic Textile Trading LLC FZC	Sorting (Oman)	HPP
4	DAPP Malawi	Wholesale, Sorting, and Formal and Informal Retail in Africa*	HPP
5	Dr. Steven Odonkor	Wholesale, Formal and Informal Retail in Africa**	Not affiliated with HPP
6	Humana Fundación Pueblo para Pueblo	Collection, Sorting, and Retail in Europe	HPP
7	Humana People to People Bulgaria	Sorting and Retail in Europe	HPP
8	Humana People to People Italy	Collection, Sorting, and Retail in Europe	HPP
9	Humana People to People Lithuania	Sorting and Retail in Europe	HPP
10	Humana People to People Portugal	Collection and Retail in Europe	HPP
11	Humana People to People Romania	Retail in Europe	HPP
12	Humana People to People Slovakia	Sorting and Retail in Europe	HPP
13	Sympany+	Collection and Sorting in Retail	Sympany+
14	UFF-Humana	Collection and Retail in Europe	HPP

* Note: Collected the responses of other informal retailers.

** Note: Provided survey responses of wholesalers and formal and informal retailers.

ON-SITE OBSERVATIONS

In June 2024, interviews were conducted with importers, wholesalers, formal retailers, informal retailers, and tailors working from informal markets. Customers of retailers (formal and informal) were also interviewed. These interviews aimed to gather information to complement the existing literature (secondary sources), and the exploratory and expert interviews. Local fieldwork teams were assisted by the in-country organisations: the Ghana Used-Clothing Dealers Association, the Mitumba Consortium Association of Kenya, and ADPP Mozambique. These organisations assisted with identifying importers, wholesalers, and retailers to be interviewed. Customers and informal traders were randomly selected. The table below lists the number of entities interviewed in each country.

TABLE 14: NUMBER OF ON-SITE INTERVIEWS

Country	Wholesale/ importer	Formal retailer	Informal retailer/ tailors	Customers	Total
Ghana	4	4	23	32	**63**
Kenya	5	2	19	31	**57**
Mozambique	2	3	22	30	**57**

These structured interviews included the perceptions of interviewees on the following topics:

- Demand for SHC.
- Socio-economic benefits of the industry.
- Interventions to maximise economic benefits and minimise waste.
- Impact if trade were to cease.
- Methods of disposing of worn clothing.

DATA VALIDATION WORKSHOPS

To establish reliable data inputs that could be used for modelling the socioeconomic impact of the SHC industry, we triangulated data from various sources. We reviewed academic literature on the (second-hand) clothing industry, as well as official trade statistics. We conducted expert interviews with stakeholders across the value chain and collected data through quantitative surveys. At times, however, the data exhibited considerable variance or was internally contradictory. This was likely caused by both the limited availability of high-quality official statistics, especially in countries of the Global South, and ambiguities/discrepancies concerning what specific figures were assessed or reported in academic studies or our quantitative surveys.

To maximise confidence in our data inputs and ensure comparability of data across countries, we conducted additional data validation workshops for the countries of Ghana, Kenya, and Mozambique. We talked to local experts and stakeholders with extensive knowledge of the industry, presented and

discussed our data estimates, and gathered their feedback and opinions. This way, we ensured that our data was realistic, consistent, and comparable across countries. Going through these multiple verification steps gave us the highest possible degree of confidence in our data inputs based on which we modelled the socioeconomic impact of the SHC industry.

GSM MODELLING

As described in Chapter 4, we conducted an economic impact assessment of the SHC industry in the EU27+ and SHC imports from the EU27+ in Ghana, Kenya, and Mozambique. This involved quantifying the economic impacts of the industry across three channels, namely the direct, indirect (supply chain), and induced (wage-financed consumption expenditure) channels.

Combined, these three channels of impact make up the second-hand industry's total core economic impact. We measured these impacts across three metrics: GVA contribution to GDP, employment, and tax revenue (due to very different tax systems applying to commercial and not-for-profit organisations within different countries of the EU27+, we only estimated the tax revenue stimulated in the three African countries of interest).

To conduct the economic impact assessment, we used the different data as input. We first used the survey responses to calculate average values per kilogram of SHC, such as purchase and sales prices, compensation of employees, and people employed, sold by collection companies, sorting companies, and retailers in the EU27+. We also presented the resulting values to an industry expert to validate the results. Similarly, we used survey responses to calculate average values per kilogram of sold second-hand garments in the three selected African countries. However, we also used on-site observations, UN Comtrade data (2024), and data validation workshops to inform these values. Moreover, we used trade data reported by UN Comtrade to extrapolate averages per kilogram to total values, including the total revenue and GVA generated by the industry, among others.

Once we collected all necessary data, we used the share of sorted clothes sold for reuse in Africa reported by European sorting centres and the data on the volume of used clothing items exported from the EU27+ to Africa (UN Comtrade, 2024) to estimate the total amount of clothes sorted by sorting centres within the EU27+. Based on the total sorting volume, we were able to estimate how many clothes needed to be collected in the EU27+ to sell this specific amount to European sorting centres. We also estimated how much the sorting centres sold to European retail shops and how many kilogrammes were sold in the EU27+ based on the survey responses.

Extrapolating the average values obtained during the data collection process with the total volume of clothes sold in each stage, we were able to calculate the total revenue and profits (EBITDA) generated in the SHC industry in the EU27+ in 2023, along with the industry's procurement expenditure on goods and services, the compensation of employees paid by the industry, and the number of people employed within the industry. Using this data, we were able to estimate the direct effect of the SHC industry in the EU27+.

We then used data reported by the EU Commission on textile collection volumes and textile sorting capacities (European Commission, 2023a) to apportion the estimated revenues and GVA within the collection and sorting stages across countries in the EU27+ (with separate data on the UK, (Circle Economy, EigenDraads & Fashion for Good, 2022)). To apportion the SHC retail activities within the

EU27+ to single countries, we used the total spending on clothes within each country (Oxford Economics based on Office of National Statistics, Eurostat, 2024) and adjusted this by the percentage of second-hand purchasers within each country (Statista, 2023b) to estimate country weights. In essence, if twice as much is spent on clothes in one country compared to another, but its share of second-hand purchasers is half as big, both countries were weighted equally. We then apportioned revenues and GVA to EU27+ countries based on the resulting weights and market shares. Since the survey evidence on SHC purchasers does not cover all EU27+ countries, but covers around 92% of EU-wide spending on shoes, we apportioned the retail spending according to the resulting distribution across the covered countries. Therefore, no economic activity was apportioned to the SHC retail sector in Bulgaria, Czechia, Croatia, Denmark, Greece, Hungary, Ireland, Lithuania, Slovenia, and Slovakia. While this may skew the results, this only affects countries outside the top 15 countries in the EU27+ with the highest expenditure on clothing and footwear.

To estimate the indirect effects within the EU27+, we also needed to apportion the procurement spending of all three stages to the SHC industries of different countries. Using Eurostat data from 2021 on output, purchases of goods and services, and compensation of employees in the broader industry categories including textile waste collection, textile sorting, and second-hand retail (collection: Waste collection, NACE code 38.1; sorting: Other specialised wholesale, NACE code 46.7 (including the sorting of collected waste); retail: Retail sale of other goods in specialised stores, NACE code 47.79), we have calculated the industry share of spending on goods and services as a proportion of the value of output for each country in the EU27+ (Eurostat, 2024d). We then applied these shares to the revenues calculated in the previous step to estimate the procurement spending of collection companies in each country. For sorting companies and retailers in the EU27+, we simply used the country weights applied to allocate revenues, as Eurostat provided questionable data (within the EU27+, purchases of goods and services were substantially higher than overall output). Thus, we assumed procurement spending in the sorting and retail stages is distributed according to the collection volumes and sorting capacities in the individual countries.

After allocating the total procurement spending of the EU27+-wide industry to the SHC industries of different countries, we further needed to estimate in what countries and other industries the procurement expenditures of the separate SHC industries of each country incurred. As details on procurement expenditure differed quite a lot, we used industry averages for each European country to estimate how much the respective SHC industry spent with suppliers of a certain industry and located in a certain country using Oxford Economics' global IO table.

Finally, to be able to estimate the induced effects, we needed to apportion the European industry's compensation of employees to the EU27+ countries to know where employees spend their money and subsequently induced economic activity. To do so, we used a similar approach to the allocation of procurement spending in the collection stage. Using Eurostat (2024d) data, we calculated the respective industry shares of wages and salaries in output for collection, sorting, and retail companies in each country. We again applied the resulting weights to the estimated EU-wide revenue of each stage and apportioned the total EU27+-wide compensation of employees according to the resulting weights. Similarly, we used Eurostat (2024d) data to estimate the average compensation of employees per employed worker in each sector and country. Combined with the allocation of compensation of

employees in the previous step, we used this data to apportion the total employment numbers in the EU27+ to individual countries.

We used a similar approach to estimate the economic impact in Ghana, Kenya, and Mozambique. We first shared a survey with wholesalers and retailers in all three countries. Due to few responses and inconsistent data, we also asked similar questions during our fieldwork, trying to expand our sample size. After combining the results of the survey and the fieldwork, we had separate workshops with experts from each country to discuss the resulting "stylised value chain" including purchase price, sales prices, EBITDA, compensation of employees, procurement expenditure, employment, and customer shares per kilogram of sold SHC. Following these discussions, we then used UN Comtrade data to scale up the average results to the volume of SHC items imported from the EU27+ in each country. In Mozambique, we had to rely on the export data reported by the EU27+ countries, as import data in Mozambique was already below that reported by our survey and fieldwork participants. As it is highly unlikely that companies would over-report their imports due to the import taxes paid on used clothes, the export data of the EU27+ is more reliable in this instance.

Subsequently, we used the respective results in each country to derive the direct impacts of SHC imports from the EU27+. As for the EU27+, we then used the resulting procurement expenditure in the three countries to estimate the procurement vector in each country. We used the respective industry-wide procurement shares of wholesalers and retailers with other industries as given by Oxford Economics' global IO table to allocate procurement spending to different industries. We also scaled up the compensation of employees per kilogram according to the trade data to estimate the induced economic impact. Finally, after calculating the inputs needed for the GSM both for the EU27+ and the three African countries, we then used the GSM to estimate the indirect and induced effects in the formal economies of the EU27+, Ghana, Kenya, and Mozambique.

As the GSM is based on official statistics, it captures the formal part of the economy. However, with the SHC industry in Ghana, Kenya, and Mozambique highly informal, we also estimated the informal employment generated within the SHC industry in each country. To do so, we have used the shares of formal versus informal employment within the wholesale and retail industries in Ghana, Kenya, and Mozambique (NACE codes 46, 47) to estimate the number of informal jobs employed with SHC wholesalers and retailers in each country (ILO, 2024a).

EXPERT INTERVIEWS

Expert interviews were conducted with stakeholders identified in Kenya, Ghana, and Mozambique to get a better understanding of how the SHC industry operates within each country, as well as to understand the benefits and negative aspects of the industry. Stakeholders were selected based on their likelihood of being directly or indirectly associated with or having knowledge of the SHC industry in the respective countries. Through desktop research, a list of 37 stakeholders was identified including government departments, research organisations, Non-Government Organizations (NGOs), academic researchers, industry associations, trade organisations, and business chambers. Together with Humana, we selected five stakeholders based on the availability of current contact details. If a selected stakeholder was unreachable, another was selected. Semi-structured interviews were conducted with the following individuals:

TABLE 15: EXPERT INTERVIEWS

No.	Name	Country	Designation	Internal/ external to the industry
1	Mr. Edward Binkley	Ghana	Secretary - Ghana Used Clothing Dealers Association	Internal
2	Mr. Oliver Boachie	Ghana	Special Advisor Ministry of Environment, Science, Technology and Innovation	External
3	Ms. Theresiah Njenga	Kenya	Chairperson - Mitumba Consortium Association of Kenya	Internal
4	Mr. Kwame Owino & Ms. Jackline Kagume	Kenya	Independent researchers	External
5	Mr. Fernando Hong	Mozambique	Member of a local formal business organisation that also supports the informal industry (including SHC traders)	External

The key topics discussed during the interviews include:

- The socioeconomic advantages and disadvantages associated with the industry.
- Demand dynamics associated with the industry, including the impact on the local manufacturing industry and the import of fast-fashion clothing.
- Current and future policy implications that can influence the SHC industry.
- Opportunities and threats associated with the SHC industry.
- Waste generation and potential mitigation measures.

The opinions expressed during the interviews were those of the individual and do not represent their organisation's views. Each interview lasted about an hour and was conducted via MS Teams. The interviews were recorded and analysed. They were conducted in English and, upon request, in Portuguese.

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