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Ghana Circular Economy Centre

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Republic of Ghana

CIRCULAR ECONOMY OPPORTUNITY MAP

Ghana Textiles Value Chain

SEPTEMBER, 2025

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Authors

This publication was prepared under the coordination of UNIDO, within the framework of the Ghana Circular Economy Centre (GCEC) project, implemented in collaboration with the Ministry of Environment, Science and Technology (MEST), with funding support from Global Affairs Canada.

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UNIDO gratefully acknowledges the cooperation and support of all partners and stakeholders whose engagement made this work possible.

About This Report

This report maps circular economy opportunities within the textiles value chain to support more sustainable production, reuse, and recycling. The sections progress from value chain context and baseline analysis to opportunity identification and recommendations for policy, investment, and innovation.

Executive Summary

Current global patterns of textile consumption and production are unsustainable. The natural ecosystems of planet Earth are out of balance, which is causing severe disruptions to climate and weather patterns, food and agriculture and ultimately commerce and economies. In 2023 the Stockholm resilience Centre at the Stockholm University updated its planetary boundary tracker to indicate that six of nine interrelated planetary boundaries assessed have been surpassed by human impact on ecosystems and two of the three measurements that remain within boundary limits are dangerously close to being surpassed1. The global fashion industry operating with the predominant take, make, waste model of consumption and production is regarded as one of the largest contributors to this planetary imbalance, driving up to 8% of all greenhouse gas emissions globally, which are the leading cause of climate change and the disruption of planetary boundaries[2] [3]. The predominant fashion business model of the 21st century thus far is based on producing high volumes of low value garments at a fast pace, a combination that is only possible through the externalization of environmental and social costs not included on the price tag of garments designed to be worn a few times and thrown away[4]. Meanwhile the costs are borne by underrepresented supply chains and global ecosystems[5]. A change to business-as-usual is necessary and Ghana is keenly positioned to catalyse such change on a global scale. Yet the ability to steer such a shift across a global industry is not a position that should be taken for granted. Emerging from the Ghana Circular Economy Centre this report identifies the window of opportunity that is open for Ghana to champion a circular textiles economy – preserving resources and reducing the carbon footprint of textiles through traditional practices of reuse and remanufacturing alongside innovative material and economic developments. The Report also identifies the necessary strategies to achieve such a vision.

The Ghana Circular Economy Centre Project funded by Global Affairs Canada, is intended to create a Circular Economy Centre through a hub and spoke model of central resources and value chain experts that together can support and enable a circular economy in Ghana. The ultimate outcome of the

1 https://www.stockholmresilience.org/research/planetary-boundaries.html
2 https://unfashionalliance.org/
3 https://www.ellenmacarthurfoundation.org/what-is-the-linear-economy
4 Cite
5 Cite

project is to enhance circular economy-based inclusive economic prosperity and through a low-carbon strategy that aims to particularly support women and youth in Ghana. The project will achieve this outcome through two intermediate outputs

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1. **Increased use of financial and/ or business and clean technology development services by small-scale women and youth entrepreneurs supported by the Centre**
2. **Increased adoption of circular economy based clean energy and energy efficient solutions by private and informal sector businesses and organisations led by women and youth with support from a local ecosystem.**

The Or Foundation, a Ghana-based operational NGO working in Accra since 2011 with the mission to catalyse a justice-led circular economy in the textile sector, has been appointed the Textile Value Chain Lead for the Ghana Circular Economy Centre, and is thus the lead author of this sector Report, calling on more than a decade of tangible work on community-based circular textiles solutions, environmental remediation and human rights, as well as newly conducted research and third-party sources.

The purpose of this report is to outline a circular economy roadmap to help diverse stakeholders to identify and prioritise pathways and actions that can facilitate a transition towards a circular economic model. Building on pathways identified in the Circular Economy Roadmap and Action Plan established by MEST in 2023, this roadmap towards a socio-economically inclusive and ecologically-sound circular textiles economy for Ghana defines the core business activities and action plans necessary to shift Ghana towards the future state of circularity for textiles. Most critically the opportunity map was developed in close collaboration with traditionally underrepresented groups with the specific objective of identifying two focus areas for action among 1) existing textile circularity practices in need of support, and 2) existing linear businesses that may implement socio-economically inclusive and ecologically sound circular practices. Each of these focus areas are mapped across two somewhat distinct value chains that both hold unique positions within the global textile industry: virgin production of local textiles in Ghana, and the secondhand clothing trade in Ghana.

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Ghana has a deep tradition of textile manufacturing, from handweaving to batik dyeing, though this tradition is facing strong competition with which it is struggling to keep up. Similarly Ghana is one of the world's largest recipients of secondhand clothing under the premise that globally sourced secondhand garments will be reused, which on its surface is a key circular practice, yet the secondhand trade now competes with low cast firsthand imports and many small business owners report that they are stuck in debt due to the lowering quality of secondhand items as a result of poorly produced firsthand goods never intended to see a second life.

Ghana is **one of the world's largest recipients** of secondhand clothing

Looking across both virgin production and the secondhand industry in Ghana, the report identifies three core opportunities as critical to facilitating a thriving and equitable circular textiles economy. These are:

1. **Strengthen and enable existing reuse practices to catalyse circularity.**
2. **Create and grow recycling pathways and domestic textile circularity.**
3. **Bridge formal and informal manufacturing as the foundation for inclusive innovation and cohesive momentum for circularity across the textile sector.**

These opportunities align with numerous UN Sustainable Development Goals, specifically SDGs 1, 5, 6, 8, 9 10, 11, 12 and 13 to eliminate poverty, to promote gender equality, to ensure access to clean water and sanitation, to promote affordable and clean energy along with decent work and economic growth based on resilient industry and innovative infrastructure that ultimately reduces inequalities and fosters sustainable cities and communities through responsible consumption and production that holistically drive climate action in an urgent moment when planetary boundaries have been surpassed with new garment production as one of the largest contributors to climate change.

Abbreviations and Terminology

Circularity: Circularity: Circularity represents an alternative to the traditional "linear" model of take-make-dispose and instead promotes a system where products and materials are kept in use as long as possible, thereby reducing the negative environmental impact of a product when compared to a newly produced version from virgin materials. Material circularity does not inherently address socio-economic circularity and inclusion, though the model of circularity put forth in this report is grounded in the principle of Justice and considers that with the circular flow of materials there is no bottom or top of a supply chain, thereby also presenting an alternative to the linear economic patterns of extraction and accumulation.

Extended Producer Responsibility: Extended Producer Responsibility (EPR) is a policy approach that makes producers (generally regarded as the company placing a new product onto the market for the first time) responsible for the entire lifecycle of their products, including collection, recycling, and disposal after consumer use. First introduced in the packaging industry in Germany in the 1990s, EPR policies are intended to offset the cost of municipal waste management and incentivise manufacturers to design more sustainable products and reduce waste by internalizing the environmental costs of their goods.

Fast Fashion: Fast Fashion is a business model where clothing and accessories are designed and marketed to sell in high volumes for low prices with rapid turnover.

Harmonized System (HS) Codes: HS Codes are an internationally standardized system used to classify traded goods. Developed by the World Customs Organization, HS codes facilitate global trade, determine tariffs and duties, and ensure uniform product classification across countries.

Informal Sector: Whilst there is no standard definition of the informal sector, this typically refers to economic activities that operate outside formal government regulation, taxation, and applicable laws.

Kayayei: "Kayayei" " is a local Ghanaian term to describe a female head porter or head carrying. Headcarrying is a traditional practice of transportation, involving mainly women carrying goods on their head. Generally, goods can be small items like food or water, however, Kayayei working in the used textile trade carry clothing bales up to 55kg, typically traveling a kilometer or more across Kantamanto Market.

Microfiber: Microfibres are small synthetic or natural fibers that shed from textiles such as during wear and washing, which can contribute to air, water and soil pollution and associated health risks, exacerbated by synthetic microfibers that do not biodegrade in the local environment.

The Ministry of Environment, Science, and Technology (MEST): MEST is the government ministry responsible for environmental protection, science and technology development in Ghana.

Waste Hierarchy: The waste hierarchy is a framework used to prioritize waste management strategies based on their environmental impact, emphasizing that prevention, reuse and remanufacture are preferred steps before recycling because recycling can incur a higher environmental cost.

Women and Youth: Women and Youth refers to women of all ages and male youth between the ages of 15-35.

1 | Introduction

Learning from Global History to Chart a New Future

Clothing is without a doubt an essential part of human existence and has been recognised in development theories such as Maslow' Hierarchy of Needs as one of the core pillars to satisfy individuals' needs.6 AAs societies have evolved and nations, developed, clothing consumption has grown beyond basic needs to become a source of creativity, individual expression, and an economic tool for development. To quote historian Professor Sven Beckert, "the industry that brought great wealth to European manufacturers and merchants, and bleak employment to hundreds of thousands of mill workers, had also catapulted the United States onto center stage of the world economy."[7] Certainly the early economic boom of the textile industry benefited many stakeholders along its value chain, from raw material suppliers such as the cotton industry and oil industry for synthetic fibres; as well as its adjacent milling and garmenting manufacturing industries providing much needed foreign exchange to foster the growth of a newly independent and industrializing nation in the case of the United States of America throughout the 19th century. However, as the industry and academic discourse has developed, it has become apparent that the growth of the textile industry, at a time where economic prosperity and increased consumption were the prized pillars, was both deeply rooted in social and environmental exploitation, as an outcome of a linear business model. The clothing industry in the United States arose due to slave labor.[8]. The industrial revolution brought on in large part by textile mills created enormous environmental with mills discharging waste water into rivers and fields over-farmed to keep up.[9] [10]. More than 150 years after the abolition of slavery in the United States many of the same concerns for labor rights, human rights and environmental rights still exist.

On April 24, 2013, after months of protests and numerous factory fires in nearby buildings, a garment production centre in Bangladesh, one of the world's largest exporters of new clothing for major European and American fashion brands, collapsed, killing 1,134 people and injuring thousands more. This echoed the factory disaster one hundred years earlier in New York City's Triangle Shirtwaist Factory in which 146 people were burned alive or jumped to their deaths in an event that gave rise to organized labor and unions in the United States. Torn from the same cloth, and producing for some many of the highest profile global brands, labor movements in Bangladesh, Cambodia, Vietnam and Ethiopia have faced fierce resistance in their struggle for decent working conditions and modest increases in wages that sit at on in some case below the global poverty line as recently as 2025[11][12]

6 Saul Mcleod, Maslow's Hierarchy of Needs (2007), https://doi.org/10.5281/zenodo.15240896

7 Sven Beckert, Empire of Cotton (2014), https://www.theatlantic.com/business/archive/2014/12/empire-of-cotton/383660/

8 Baptist, E. E. (2016). The half has never been told. Basic Books.

9 https://dem.ri.gov/environmental-protection-bureau/land-revitalization-and-sustainable-materials-management/state-2

10 Baptist, E. E. (2016). The half has never been told. Basic Books.

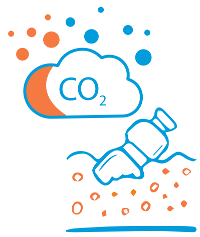
11 https://fortune.com/asia/2025/01/09/bangladesh-garment-industry-bounces-back-revolution-workers-complain-unachievable-targets/

12 https://www.businessoffashion.com/news/sustainability/garment-workers-protests-leave-one-dead-in-bangladesh/

[13] [14] [15] [16]. Just as with labor rights concerns, the industrial pollution that plagued textile mills across the United States during the early industrial era has only moved to today's major garment producing hubs two centuries later, such as in Dhaka Bangladesh, where the Department of Environment has classified three rivers in the capital city as biologically dead due to pollution from garment factories[17].

Ghana has not escaped these challenges. Through ongoing work of The Or Foundation, recently conducted research and independent investigations, major environmental concerns have been linked to global fashion waste washing up on Accra's beaches and dumped throughout the capital city. Additionally, severe labor rights concerns and gender disparity in income have been identified within Ghana's largest (and likely the world's largest) secondhand clothing market, Kantamanto Market in Accra, Ghana, with thousands of young women living and working in abusive conditions to dangerous headcarry secondhand clothing across the market and the majority of secondhand clothing retailers earning less than the global poverty line[18]. In Ghana, new, export oriented garment production with synthetic fibers is increasing and pay across the new garmenting sector and the secondhand trade has been reported as significantly below a living wage standard according to multiple informants[19].

On a global level, the environmental and social impacts of the global textile industry, predominantly characterised by a take-make-dispose model, are not a secret. Numerous reports in major media outlets describe how the global fashion industry overproduces goods by 30 - 40% per season, and the United Nations has organized a working group to address the fact that the fashion industry contributes up to 8% of global greenhouse emissions and 9% of global microplastic pollution. [20]



The fashion industry contributes up to **8%** of **global greenhouse emissions** and **9%** of **global microplastic pollution**

[21] These figures represent substantial and concerning contributions to the overshoot of interdependent planetary boundaries, that, without immediate intervention, set the stage for drastic climate change events as identified by the Stockholm Resilience

13 https://www.hrw.org/report/2022/11/21/only-instant-noodle-unions-survive/union-busting-cambodias-garment-and-tourism

14 https://www.aljazeera.com/news/2024/3/1/vietnam-orders-control-of-workers-unions-despite-un-pledges-watchdog-says

15 https://www.industriall-union.org/profile-organizing-in-the-garment-and-textile-sector-in-ethiopia

16 https://www.workersrights.org/wp-content/uploads/2019/03/Ethiopia_isa_North_Star_FINAL.pdf

17 https://www.youtube.com/watch?v=3ypO7nMd2ko

18 https://ce-public-documents.s3.eu-west-1.amazonaws.com/textiles-9e4ca4f0extile+Trade+Flow+and+Employment+Baseline+Analysis+Ghana+20241205.pdf

19 Key informant discussions are compared against living wage calculator tools such as the Global Living Wage Coalitions. Additionally, as of June 2025 the World Bank has established the global extreme poverty line as USD 3 per day. Placing wages of the majority of secondhand clothing retailers reported in a 2024 study commissioned by the trade association of secondhand clothing importers at below the global extreme poverty line, and reported wages at garmenting factories of USD 110 per month according to key informants at just above the global extreme poverty line.

20 Aslaug Magnusdottir, How Fashion ManufacturingWill Change After The Coronavirus(2010), https://www.forbes.com/sites/aslaugmagnusdottir/2020/05/13/fashions-next-normal/

21 United Nations Environmnet Programme (UNEP), Sustainability and Circularity in the Textile Value Chain: A Global Roadmap (Paris: UNEP, 2023), https://www.oneplanetnetwork.org/sites/default/files/2023-10/Full%20Report%20-%20UNEP%20Sustainability%20and%20Circularity%20in%20the%20Textile%20Value%20Chain%20A%20Global%20Roadmap.pdf

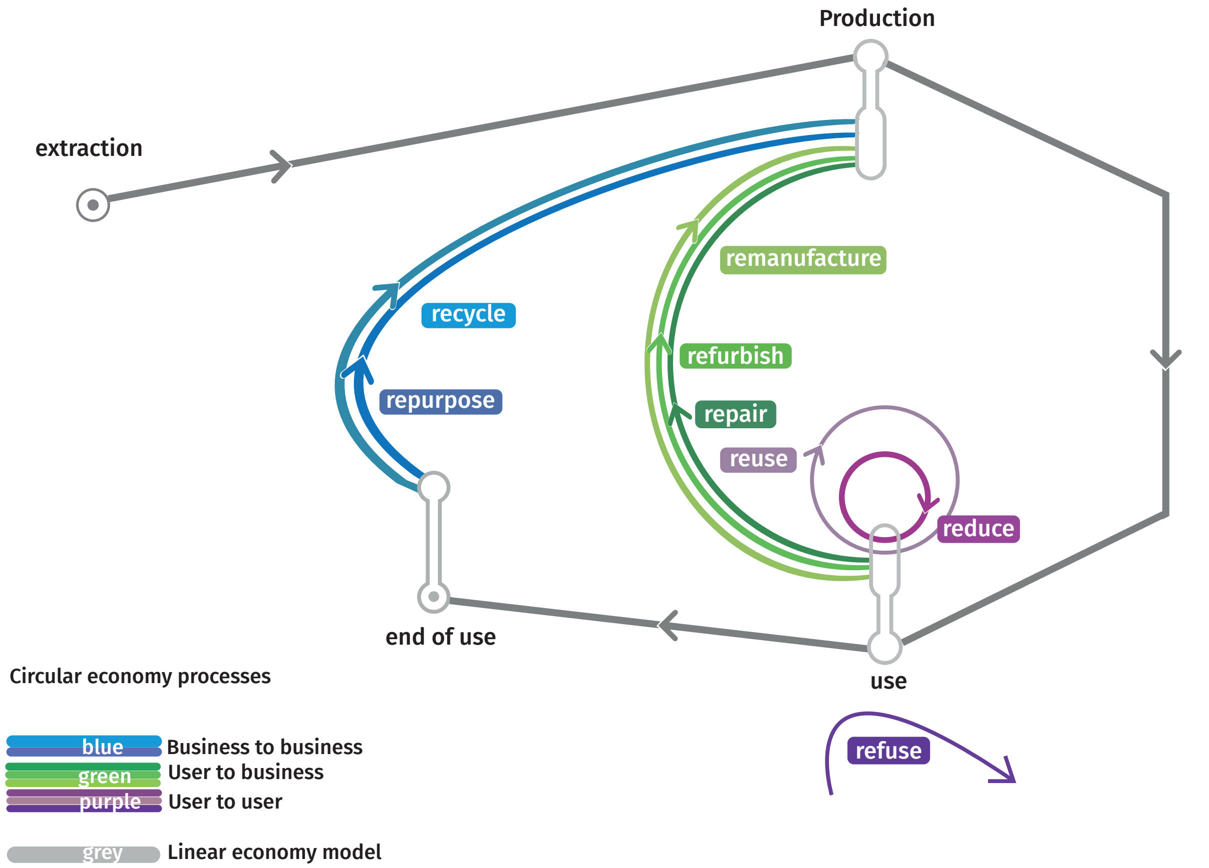
Center. The social impacts are equally concerning with workers on either end of the value chain – both those creating new garments and those managing the waste of such overproduction – facing low wages and operational health and safety risks, where women are particularly vulnerable, making up the bulk of the labour force. These impacts are heightened by the fickle nature of global supply chains riding the political tides on the race to the bottom, such as in Lesotho where garmenting factories have recently shut down due to increased tariffs into the mountain kingdom's largest textile export market, the United States of America, leaving thousands of people jobless overnight. The facts are inescapable. The current model of low priced, fast fashion production, comes at a cost the planet and societies cannot afford.

The clear externalities of the industry that nearly everyone touches either as a consumer of clothing or along the supply chain have sparked global calls for the fashion industry to transform itself and operate sustainably.[22] A circular textiles economy presents a pathway toward such sustainability. In a circular textiles economy products and materials are kept in circulation, and are used as a resource as opposed to becoming waste. By extending the life of already existing products and subsequently utilizing their constituent parts as the resources for new products – either textiles or other materials – the circular textiles economy greatly reduces the demand for new resources, thereby allowing for nature to regenerate itself.[23] Importantly, circularity begins with reducing consumption (depicted in Figure 1 as "refusing" to buy new) so as to adjust expectations along the circular supply chains (where everyone is both consumer and producer) to accommodate the processes of reuse, repairing and refurbishing, remanufacturing, disassembling and reassembling, recycling and possibly composting[24]. Material circularity does not inherently address socio-economic circularity and inclusion, though the model of circularity put forth in this report is grounded in the principle of Justice and considers that with the circular flow of materials there is no bottom or top of a supply chain, thereby also presenting an alternative to the linear economic patterns of extraction and accumulation.

Key Finding

Material circularity does not inherently address socio-economic circularity and inclusion, though the model of circularity put forth in this report is grounded in the principle of Justice and considers that with the circular flow of materials there is no bottom or top of a supply chain, thereby also presenting an alternative to the linear economic patterns of extraction and accumulation.

22 https://www.unep.org/technical-highlight/governments-call-global-textiles-policy-dialogue
23 https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview
24 https://www.ellenmacarthurfoundation.org/our-vision-of-a-circular-economy-for-fashion



Circular Economy DIagram extracted from the UNEP Circularity Platform[25]

The Building Blocks and The Roadblocks for a Thriving Justice-led Circular Textiles Economy in Ghana

The building blocks of a circular textiles economy are in Ghana. Through both the secondhand trade as well as longstanding cultural traditions, Ghana has strong practices of reusing and repairing clothing, both pillars of circularity. Ghana imported 148,894 metric tons of secondhand clothing and used textiles under classified under customs code HS 6309 in 2023, and has reported similar numbers for over a decade, making Ghana consistently one of the top five importing countries of secondhand clothing intended for reuse in the world, which can be a strategic asset on a number of levels in a circular textiles economy, as reuse is a pillar of circularity. In addition, a legacy of textile manufacturing holds the know-how to produce high value woven textiles that can be passed down for generations. Mobile tailors, known as adeɛyie, walk the streets of cities, towns and villages offering to repair garments to keep existing items in circulation, and thousands of tailors and seamstresses around the country produce one of a kind pieces for customers within their own communities. In Accra's sprawling and dense Kantamanto Secondhand Clothing Market and throughout the country, garments that no longer hold value for their original purpose are cut up and put back together as garments with a higher demand, for instance turning stand men's button up shirts into children's boxer

25 https://buildingcircularity.org/

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shorts sees the transformation of tens of thousands of items every week. Young engineers (working for The Or Foundation, the lead author of this report) have created a process to recycle discarded textiles into furniture, sound insulation and other hard goods utilizing machinery designed and built in Ghana with recycled materials. With the right support these building blocks for circularity and sustainable fashion can come together as a shining example on a global stage of what is possible outside of the centuries-old pattern of overproduction and overconsumption that once tore people from the shores of Ghana and that today brings millions of discarded garments to the same coastline. Yet to weave the threads of circularity into a successful industry for Ghana as a standard bearer of sustainable textile on a global, or even regional scale, is not without significant challenge.

Many of the existing circular practices within Ghana's textile sector take place throughout what is commonly thought of as the informal economy. This means that there is no centralized investment vehicle, not one single entity in charge and in that regard no economy of scale, and scarce data available. For each of these challenges, the informal sector patterns also presents opportunities through the resilience of scale-by-replication, low barrier to entry spawning innovation, and direct small business ownership placing the means of production in the hands of the people driving circular textile practices in a manner that can (but does not inherently) see more equitable distribution of financial gains and freedoms in comparison to the predominant linear model of extraction and accumulation. Yet ensuring collaboration, systems planning, and shared infrastructure investment across informal infrastructure requires cooperative building, community organizing and institutional representation. The challenge in achieving such cohesion must not be underestimated, especially within what is essentially a subsistence economy, where a focus on immediate needs often takes priority for stakeholders over longer term improvements and systems planning.

Defining Informality[26]

Without a clear binary definition of informal and formal sectors, the VAT de minimis threshold and registration of businesses with municipal governments versus with the central government's registrar general stands in as a defacto guideline of whether a business is considered formal or informal.[27]

26 https://www.fibre2fashion.com/industry-article/1015/stitching-for-survival?utm_source=chatgpt.com

27 Ministry of Finance. (2023). 2024 Budget Statementhttps://mofep.gov.gh/sites/default/files/budget-statements/2024%20Budget%20Statement_v2.pdf

Discarded whole garments are currently left as waste throughout the major secondhand market and at the household level. Throughout both remanufacturing and new manufacturing process offcuts are often tossed into waste piles without any clear waste management strategy aside from open burning or dumping. The dispersed nature of tailor and seamstress shops, as well as households and markets throughout the country make textile waste collection and sorting at a scale aligned with economic efficiency and market viability of recycled outputs an enormous challenge, yet the centralized nature of Kantamanto Secondhand Market in Accra where thousands of upcyclers, secondhand retailers and remanufacturers are based affords the opportunity to develop waste collection, sorting and transformation businesses at a scale that matches economic needs with material volumes. This is exactly the work underway with on such initiatives highlighted in this report and through the digitization of the community sensitization materials used to onboard market member participation in waste collection and sorting programs, the program could eventually be replicated in other urban hubs with spokes spreading out into surrounding rural areas on regular collection routes so as to achieve the economies of scale necessary to make such work worth it for the actors involved. The first step, however, is ensuring full participation in the program in Kantamanto Market as the trial site before spreading elsewhere, work that requires addressing the challenges of community organizing, planning and shared infrastructure investments.

Another challenge identified through tangible work within the sector is to define textile waste so as to build policy around waste management practices. For some stakeholders an unsold garment is waste. For others it is a resource to be upcycled or recycled into something new. While the strict definition may influence whether or not certain actors must be classified as waste service professionals or as manufacturers, and as such which governmental agencies, under current laws, may be monitoring their activities or shepherding through tax incentives and co-financing investment strategies, the grey area of defining waste and product is inherent to the circular economy where there is neither bottom nor top of the supply chain and where waste is a resource and a product is waste. The fact that such ambiguity is openly discussed among stakeholders indicates that circular practices are already underway. Now the challenge is for policy both domestically and internationally to align with the nuance of circularity.

Addressing these challenges so as to bolster the practices underway and to foster new circular economic and material pathways holds enormous potential for Ghana and the global textile industry at large.

In **2017,** the global clothing industry was valued at **USD1.3 trillion**, with an estimated **300 million** people involved in the global value chain

In 2017, the global clothing industry was valued at USD1.3 trillion, with an estimated 300 million people involved in the global value chain.[28] Though both of these figures may be underestimations as the extent of such an enormous industry is not possible

28 A New Textiles Economy (2017) p.18

to capture with conventional data tools, especially with limited transparency into the full scope of supply chain and downstream activities – for instance, how many people work on remote cotton farms and how many people move secondhand clothing throughout informal markets. These data challenges are particularly taking place within the informal sector, which is particularly relevant in Ghana where estimates suggest that 89% of employment is within the informal sector, employment in this case often meaning self-employed[29]. Regardless of the exact size of the existing industry, the United Nations Environment Programme (UNEP) estimates that there is a USD700 billion economic potential for circular textiles by 2030, which would see millions of tons of carbon emissions offset in comparison to new production[30]. This represents roughly half of the market value of the fashion industry. UNEP further emphasizes that much of the circular potential rests within the Continent of Africa.

To be clear, new garmenting production is not by definition circular, and thus the circular transition is not an inevitable process. Policies supporting high volume, low-cost new garment production including those in export processing zones may be directly contradictory to circular principles and may undermine efforts to build on the patterns and the know-how of reuse, repairing, remanufacturing, and recycling currently underway across the informal sector in Ghana. Specific interventions to make existing new garmenting practices more sustainable from material, economic and waste management standpoints must be deliberately required as part of new garmenting initiatives, if such initiatives are to take shape, so as not to have two divergent paths at odds with one another. This requires concerted, deliberate efforts across policy, investment and education, which is no doubt tremendous work guided by long-range visioning to shift out of business-as-usual. But there is a strong reason to put in the work. If the Ghanaian circular textiles economy can capitalise on its unique opportunities so as to achieve even 1% of the total global market share potential for circular textiles, or USD 7 billion by 2030 with an estimated reduction in 13million tons of CO2 compared to equivalent linear activity, the economic and environmental outlook would be deeply transformative for the communities involved[31]. This is a feasible target and this report and the subsequent documents emerging from it lay out the pathways to achieve such transformation.

Key Finding

If the Ghanaian circular textiles economy can capitalise on its unique opportunities so as to achieve even 1% of the total global market share potential for circular textiles, or USD 7 billion by 2030 with an estimated reduction in 13million tons of CO2 compared to equivalent linear activity, the economic and environmental outlook would be deeply transformative for the communities involved.

29 Baah-Boazteng et. al., "Informal Workers in Ghana: A Statistical Snapshot," WIEGO, 2020, https://www.wiego.org/sites/default/files/publications/file/WIEGO_Statistical_Brief_N21_0.pdf.

30 https://www.youtube.com/watch?v=eLxAVp7TOQs

31 https://www.youtube.com/watch?v=eLxAVp7TOQs

Ghana's Present, Past, and Future Textile Industries

With USD 1.077 billion of new textile related imports into Ghana in 2023 in addition to USD 172,518,536 of secondhand clothing imports against USD 42 million of textile and apparel exports, Ghana's textile industry is dominated by imports32. This was not always the case. Remnants of the country's textile producing past include a major road connecting the industrial port city of Tema with the capital Accra that is called Spintex, short for Spin Textiles. Spintex received the name due to the numerous textile factories that once sat beside it.[33] There remains deep cultural significance within the traditional Ghanaian wax printing, kente and smock weaving which still exist today. Although these textiles have received global recognition and are often thought of as symbolic of African textiles at large, today almost all printed and woven fabrics produced in Ghana are made of imported textiles.[34] [35] [36] The shift away from holistic domestic textile production from field to closet in the decades after Ghanaian independence to today's limited domestic finishing, cutting and sewing of imported textiles and a proliferation of secondhand clothing can in part be attributed to the fact that after less than 30 years of independence, Ghana's textile sector restructured as a result of stabilization and structural adjustment policies required by the International Monetary Fund, which greatly reduced government support for the domestic textile sector leading to a decline in jobs from over 30,000 formal textile manufacturing jobs to roughly 5000 formal textile manufacturing jobs today.[37] This underscores the ability of policy initiatives to steer an industry. In crafting inclusive policies, it is critical to recognize that the textile industry jobs lost in the formal sector have surged across informal spaces and are in many cases grounded in circular practices.

The secondhand trade in Kantamanto Market, which may be underrepresented in conventional statistical services due to the prevalence of small-businesses operating under the VAT de minimis threshold of GHS 200,000 per year, collectively represents upwards of USD 500 million of annual economic activity across a largely self-employed workforce of an estimated 30,000 people. With a lack of centralized data these calculations are extrapolated from secondhand clothing bale prices established through surveys of Kantamanto Market retailers conducted by The Or Foundation in 2024. Since that time the market has suffered a devastating fire due in large part to inadequate infrastructure as a result of underinvestment and fragmented planning efforts, despite being widely regarded as the largest clothing reuse market in the world. Kantamanto Market, sprawling across roughly 18 acres and dedicated almost entirely to secondhand clothing, is the largest but not the only secondhand market in the country, meaning that many thousands of other individuals and likely

32 UNComtrade. See Appendix.

33 Information established in a 2016 interview with a manager at a textile manufacturer in Ghana.

34 https://www.africanews.com/2024/12/13/ghanas-kente-cloth-recognized-as-unesco-cultural-heritage/

35 Essel, O. Q. & Asare, G. D. (2020). Breaking the academic silence on anonymity of indigenous textiles: Textile art of Nana Kwaku Duah II in focus. Journal of African Art Education, 1(1), 21-41. https://www.researchgate.net/profile/Osuanyi-Essel/publication/344046818_Breaking_the_Academic_Silence_on_indigenous_textile_artists_Textile_art_of_Nana_Kwaku_Duah_II_in_focus/links/5f4fc6d692851c250b8b24ae/Breaking-the-Academic-Silence-on-indigenous-textile-artists-Textile-art-of-Nana-Kwaku-Duah-II-in-focus.pdf

36 https://dailytrust.com/inside-ghanas-collapsing-textile-industry/

37 [add source]

many millions more dollars are involved in the trade throughout the country in some capacity, from carrying goods to recrafting what cannot otherwise be sold. In each context, whether in Kantamanto Market in the Central Business District of Accra, or on the side of the road in a rural village, the risks and benefits of the secondhand trade and the economic throughput of the industry are not evenly divided and require further interrogation as explored in later sections of this report.

1.2 | Kantamanto | New Year's Fire

Late in the night on January 1st of 2025, Kantamanto Market experienced a devastating fire outbreak. The market had seen previous large fires in 2022, 2022 and 2013, as well as smaller fires quenched by fire extinguishers installed by The Or Foundation. But the New Year's Fire in January of 2025 was the largest. The market infrastructure is predominantly flammable, untreated wood. Exacerbated by the absence of fire lanes as well as limited security measures and response systems, the fire rapidly spreading through roughly 60% of the market within hours, destroying approximately 7,000 market stalls, including millions of dollars of secondhand clothing, sewing machines and other equipment of small businesses based in the market, including auxiliary services such as food vendors and hairdressers as well as thousands of upcyclers and secondhand clothing retailers. Two people died as an immediate result of the fire. This supply chain disaster serves as the background of the research findings emerging from this project.

The Or Foundation, lead author of this report, has contributed over USD 3 million to support market members get back on their feet with direct transfers of funds to over 9000 individuals, and rebuilding support, including rewiring the market for every newly rebuilt stall to have up-to-standard electricity. Through this effort three market-wide associations have formed to facilitate comprehensive market wide planning, security and representation efforts.

In addition to secondhand clothing, the Ghana National Tailors & Dressmakers Association reports membership of 50,000 master craftspeople training 75,000 apprentices at any given time. This means that tailors, seamstresses and dressmakers, along with the people training for the professions, make up just under 1% of the entire workforce in Ghana (including people involved in the secondhand trade and traditional handweaving, this number exceeds 1% of the Ghanaian workforce).[38]. While the vast majority of this work takes place within the informal sector or as non-basic employment for domestic markets, the contribution toward circular principles of tailors and seamstresses producing custom made garments that might be worn for years and handed down over generations as is a tradition in Ghana must be brought into the central strategy of the circular textiles economy and as a significant contributor to Ghana's economy overall. Today the raw materials of such craftspeople are almost entirely imported, yet the opportunity to recraft existing

38 https://data.worldbank.org/indicator/SL.TLF.TOTL.IN?locations=GH

garments as a circular practice is ripe as well as exploring local textile production with recycled materials that may be particularly well suited for hand weaving practices found throughout Ghana, and onboard tailors and seamstresses, whether of first hand apparel or of upcycled garments to contribute their offcuts to the numerous recycling pathways currently under development in Ghana.

A concentrated hub of reuse, repair and remanufacturing activities is a tremendous advantage for establishing a flagship for the circular textiles economy, setting precedent and guiding the path on nationwide, regional and even global level. The challenges of fostering any initiative to scale when members of the supply chain are spread out across the country cannot be overstated. Even significant resources distributed across the 16 administrative regions of Ghana and the many thousands of small businesses, while necessary, may only be a small drop in the bucket for each decentralized business operationally, which presents a risk of making small advances everywhere while achieving tangible results nowhere. In response to this challenge, this report argues that the opportunities for business development and cooperative building found within Accra's globally unique Kantamanto Secondhand Market, where thousands of diverse small businesses dedicated to the reuse, repair and remanufacturing of millions of textile products on a weekly basis are centralized on a scale unparalleled globally, should not be overlooked. Targeting work in Kantamanto Market, where surveys indicate that 75% of market members are women, also advances the objectives of inclusivity, and the UN Sustainable Development Goal 5 of gender equality. While there is no single business entity controlling the market, the centralized market location and the recent emergence of three new market-wide associations, including the Kantamanto Women's Association, presents as a hub through which to direct concerted activities that can then be disseminated across the country through open source digital knowledge sharing and key stakeholder engagement at events organized by Ghana Circular Economy Centre and the Projects' Value Chain Leads through which this report is published.

Targeting work in Kantamanto Market, where surveys indicate that **75% of market members are women,** also advances the objectives of inclusivity, and the UN Sustainable Development Goal 5 of gender equality.

Kantamanto Market in the Central Business District of Accra is divided into multiple geographic and administrative areas, shown above including areas with vendors on the street and the adjacent June Fourth secondhand clothing market. Outside of these areas importers offload containers of secondhand clothing on a weekly basis.

The Ghana Circular Economy Centre Project (GCEC) funded by Global Affairs Canada, is intended to create a Circular Economy Centre through a hub and spoke model of central resources and value chain experts that together can support and enable a circular economy in Ghana. The ultimate outcome of the project is to enhance circular economy-based inclusive economic prosperity and through a low-carbon strategy that aims to particularly support women and youth in Ghana. The project will achieve this outcome through two intermediate outputs:

1. Increased use of financial and/or business and clean technology development services by small-scale women and youth entrepreneurs supported by the Centre
2. Increased adoption of circular economy based clean energy and energy efficient solutions by private and informal sector businesses and organisations led by women and youth with support from a local ecosystem.

The GCEC and the findings of this report build on pathways identified in the Circular Economy Roadmap and Action Plan established by MEST in 2023, which lays out the series of actions necessary to establish socio-economically inclusive and ecologically-sound circular textiles economy for Ghana, as well as other critical value chain sectors such as Plastics and Agriculture. The opportunity mapping charting the pathway forward has been developed in close collaboration with traditionally underrepresented groups with the specific objective of identifying two focus areas for action among 1) existing textile circularity practices in need of support, and 2) existing linear businesses that may implement socio-economically inclusive and ecologically sound circular practices. Each of these focus areas are mapped across two distinct value chains that both hold unique positions within the global textile industry: virgin production of local textiles in Ghana, and the secondhand clothing trade in Ghana. The strategic calls to action presented in this report are to:

- **Strengthen and enable existing reuse practices to catalyse circularity.**
- **Create and grow recycling pathways and domestic textile circularity.**
- **Bridge formal and informal manufacturing as the foundation for inclusive innovation and cohesive momentum for circularity across the textile sector.**

If successful these actions see inclusive, women and youth owned business cross the VAT de minimis threshold and in so doing become incorporated into policy planning and investment strategies at the central government and development partner level. Whether considered non-basic employment for domestic markets or basic employment for export markets, if successful employment arising from these actions will contribute to a stronger balance of trade in the textiles sector for Ghana through the domestic recirculation of material, offsetting demand for imported goods. If successful these actions address critical infrastructure shortcomings that make way to mitigate labor rights abuses and manage waste as a resource through circular pathways. If successful these actions lower the carbon footprint of textiles in Ghana and light the way globally for the nation to lead a much needed circular transition. Comprehensively the pathways identified in this report address UN Sustainable Development goals 1, 5, 6, 8, 9 10, 11, 12 and 13 to eliminate poverty, to promote gender equality, to ensure access to clean water and sanitation, to promote affordable and clean energy along with decent work and economic growth based on resilient industry and innovative infrastructure that ultimately reduces inequalities and fosters sustainable cities and communities through responsible consumption and production that holistically drive climate action in an urgent moment when planetary boundaries have been surpassed with new garment production as one of the largest contributors to climate change.

2 | Methodology

The following report adopts a mixed methods approach, utilizing both primary research and secondary sources, to inform baseline metrics, identified inefficiencies and targeted action plans for the circular opportunity roadmap. This includes leveraging previous primary data collected by The Or Foundation, in addition to institutional knowledge developed as a non-governmental organisation (NGO) operating in Ghana since 2011.

Since its founding, The Or Foundation has worked closely with the Kantamanto Market community through educational and product-design programs before beginning research on Ghana's secondhand clothing trade in 2016, research which continues to today. As part of this research, The Or Foundation has engaged in various levels of participatory observation - from passive observation of daily market dynamics to full active participation, including former Kantamanto market stakeholders joining The Or Foundation's research teams as full-time employees. This inclusive approach provides an in-depth understanding of challenges and opportunities, including firsthand accounts gathered through extensive organizational program operations implementing waste management, material transformation, community organizing, urban planning – including census taking – and economic training activities across Kantamanto Market In addition to work directly within Accra's secondhand clothing market and predating the GCEC, The Or Foundation team has conducted multiple site visits to major Ghanaian textile mills and printers, Volta Star and Akosombo Industrial Corporation Limited and conducted both formal and informal interviews with senior staff and leadership at both companies. The organization has also supported textile-based apprenticeships including at small-scale weaving and dyeing studios, a process that has provided intangible context helping shape this report.

Some of the tangible research informing this report was conducted by The Or Foundation as part of the Circularity and Used Textile Trade Research in collaboration with the United Nations Environment Programme and funded by the EU through a project running concurrently to the GCEC-based opportunity mapping. This research includes commissioning a survey in Kantamanto Market conducted in October and November of 2024, hosting a stakeholder validation session in December of 2024 and a multi-stakeholder consultation in February of 2025 to identify current challenges and opportunities related to policy and financial mechanisms around Ghana's secondhand clothing market. Additionally insights are gathered from MEST's Circular Economy Roadmap and Action Plan, also funded by the EU, which called on similar stakeholder engagement sessions conducted between 2022 and 2023, and similarly led by The Or Foundation as the textile sector contributing author.

The Or Foundation conducts research in order to drive impact. The organization operates a range of programs from apprenticeships and business incubation to material science, product development and environmental remediation. Combined, these programs have reached thousands of participants, identified and removed thousands of tons of textile and plastic waste from the environment, supported the rebuilding of Kantamanto Market sections after the last three severe market fires, conducted thousands of community meetings, installed over 300 kilometers of safe electrical wiring in the Market, and catalysed millions of dollars of funding in support of a justice-led circular economy ecosystem in Ghana's secondhand clothing trade. Through this ongoing work The Or Foundation has developed a depth and breadth of institutional knowledge and stakeholder relationships that guide this report and continuous program improvement.

Considering that a key limitation of the participatory research methodology includes the risk of bias stemming from social interactions between the researcher and their research subjects, The Or Foundation applies the approach of triangulation, deploying multiple observers and surveyors to validate findings, and has also called on four years of waste data analysis within Kantamanto market, over three thousand of water and air samples collected since 2022, hundreds of beach monitoring reports and countless stakeholder interactions through multiple points of contact both in Ghana and internationally, including dedicated forums soliciting input on opportunities and challenges conducted in Accra, Tamale and Kumasi. Each of these activities is described in detail throughout the remainder of this section.

2.1 | Waste Data Analysis

Since November 2021, The Or Foundation has conducted an audit of textiles leaving Kantamanto Secondhand Clothing as waste. As of the publishing of this report, this form of waste data analysis is an ongoing research effort, with an initial snapshot of data published in The Or Foundation 2022 Waste Landscape Report.39

This form of participatory research entails The Or Foundation selecting a diverse range of secondhand clothing retailers across Kantamanto representing different clothing categories and geographical locations in order to determine statistically the approximate volume of different fiber types currently going to waste across the market. This audit has been organised by asking individual retailers to save their waste. Throughout the week, 1 - 2 members of The Or Foundation's team will sit with the retailer in her or his stall, and inspect every garment collected over the course of the preceding week that the retailer considers waste and that they would otherwise have gotten rid of had we not asked to sort through it. The team member will then check each garment within the retailer's wastestream looking at the garment care tags and noting in our survey forms the relevant information.

The original intent of this research was to enlist retailers to report data back to The Or Foundation However, it was determined that this would come with its challenges, in part to the dust of the market, impacting many retailers eyesight causing impairment to read the fine print of the garment care tags or manufacturers labels. Visual acuity and eye health of market members has been assessed through a separate study conducted by The Or Foundation providing comprehensive health examinations for 139 people working as market retailers and upcyclers, from which data was captured and analysed. While specific of these health examination results are outside of the scope of this specific opportunity mapping report, the overall findings serve as background knowledge with regards to key gaps in access to healthcare that members of Ghana's circular textile economy may face.

39 https://theordev2.s3.amazonaws.com/2023-01/Waste%20Landscape%20Report%20-%20Compressed.pdf

2.2 | Microfibre Pollution Research

Since 2022, The Or Foundation's Accra-based team and community partners lead a multi-year citizen science based program to track the impact of whole garment and microfiber pollution in Accra. Water and air samples have been taken weekly along a gradient around a known textile waste dump site. Samples are processed through fiberglass filters and imaged under a stereomicroscope with UV fluorescence and images captured using a 20 megapixel camera. Microfibers visible in the Images of filtered samples are then counted by three different community-based citizen scientists and compared against additional samples imaged with scanning electron microscopy at the Deheyn Lab at the University of California Scripps Institute of Oceanography. In addition to water sample, this research also includes continuous monitoring of air quality using PurpleAir sensors placed in an around Kantamanto Market and known textile waste dump sites in Accra. A coriolis air capture device from Bertin Instruments has also been deployed to capture air samples, which are then processed through similar methodology as the water samples. A rain gauge has been used to capture rainwater which is also analysed with similar methodology. Rain events are monitored using an Atmos 41 Weather Station on the rooftop of The Or Foundation building in Adabraka, Accra, 1km north of Kantamanto Market. A link between pollution observed through the aforementioned methods and globally sourced secondhand clothing has been established through a direct correlation (using Pearson correlation coefficient) of global brand tags in the textile waste found in the market and on the nearby beaches and by comparing the fiber types found of water and air samples established through Fourier Transform Infrared spectroscopy with fiber types established using the waste data methodology noted above

2.3 | Stakeholder Consultation, July 11 - 12, 2024

On July 11 - 12, 2024 The Or Foundation held a data validation workshop dedicated to further inform and validate insights garnered over the years concerning the socioeconomic health of the Kantamanto Market, Ghana's epicentre of the secondhand clothing trade. A group of 27 market stakeholders participated in a two day workshop hosted at Coconut Grove Hotel's Conference Facilities in Accra. This workshop, gathered qualitative insights from participants relevant for consideration within policy frameworks both domestically and internationally. This included establishing concerns and challenges of stakeholders. Feedback was also collected on the definition of ”waste”, which may be an important aspect of policy interventions. The attendees also developed a list of actions to strengthen the clothing reuse trade in Ghana, with interventions for market stakeholders to government ministries. Notes from the session are included in the Appendix section.

2.4 | Circularity and Used Textile Trade Research in Kantamanto

As part of the previously mentioned "Circularity and Used Textiles Trade" project in collaboration with UNEP The Or Foundation designed a new questionnaire survey to administer within the Kantamanto Market in order to gather comprehensive insights from stakeholders performing textile circularity practices within Ghana. The aim of this survey was to gather insights across 300 participants to understand the economic benefits and challenges of the second-hand clothing market, its social implications, environmental effects, and regulatory landscape. The initial research design, consisting of open-ended, but predominantly of close-end multiple choice questions to ensure consistency across data collection, was developed internally by The Or Foundation. However, the final survey administered was informed by stakeholder consultations from UNEP and Kantamanto market stakeholders, including survey data collectors and Kantamanto Market Leadership. Feedback from Kantamanto Market leadership was gathered from a stakeholder dialogue session held on October 17th and 18th, 2024 to inform leadership on the purposes of the survey and to gather the necessary buy-in to drive market participation. Four data collectors were enlisted based on their pre-existing familiarity navigating Kantamanto Market in addition to knowledge of the local language - Twi. Data collectors received more than eight hours of training to ensure the methodology and questions were fully understood with monitoring ongoing.

The data collection target was exceeded to collate responses from 322 individuals. Outliers were removed from the final dataset analysis making the total population surveyed 293 individuals.

2.5 | Upcycling Surveys in Kantamanto Market

In May of 2025 The Or Foundation independently commissioned a pulse check of 42 surveys targeting Kantamanto Market members self-identying as upcyclers. The surveys were conducted by members of the Katamanto Upcyclers Association and aimed to establish baseline information after the Kantamanto Market New Year's Fire to contextualize the return to business operations within the market as well as specific, up-to-date representative data points about upcycling inputs, outputs, costs and revenue. The survey instrument is included in the appendix.

2.6 | Circular Opportunity Mapping Research in Kumasi, Tamale and the Central Region

During the week of 21 - 25 May 2025, The Or Foundation extended its research to Kumasi in the Ashanti Region of Ghana in support of the GCEC circular opportunity mapping. The study design employed was a mixed-methods approach, combining survey administration with a focus group discussion. Three different survey instruments were developed for three different stakeholder groups:[40]

- **Waste Management Services and Government Officials**
- **Capacity Building, Business Development, Financial Vehicles, Development Partners, Associations, Media Houses**
- **B2C & B2B: Designers, Manufacturers, Tailors, Seamstresses, Traders, Upcyclers, Weavers**

These surveys gathered both quantitative and qualitative information from a broad range of stakeholders working along the intersections of waste management, virgin and second hand textile business operators, media houses, capacity building institutions, donor agencies as examples. The aims of these surveys were to capture data on waste streams managed, resource flows, business practices, perceptions of value chain opportunities, gaps, perceived barriers, and ideas for advancing circularity in the sector.

Approximately 90 stakeholders participated in the survey, selected to represent diverse roles across the three stakeholder categories. Participants included: fashion designers and small apparel brands, tailors and dressmakers, secondhand

40 See Appendix

clothing traders, kente weavers and traders, informal waste pickers, journalists, representatives from local government departments (waste management and department of cooperatives) and policy agencies (Ministry of Environment, Science and Technology), business development experts and project managers from donor agencies, among others. The mix ensured a thorough appreciation of the issues from a well represented sample of producers or textile handlers to those who deal with post-consumer waste.

Stakeholders were engaged through a structured questionnaire and follow-up discussions. The questionnaire included multiple-choice and Likert-scale questions (to quantify trends like level of harm caused by waste, frequency of collection, etc.) and open-ended questions (to gather nuanced perspectives and suggestions). Surveys were administered in person via Google Forms and survey administrators were fluent in both Twi and English. The data was collected over a four day period. In addition to the surveys, a literature review was performed, drawing on global and local reports to contextualize the findings.

In Tamale fact finding meetings were held by The Or Foundation research team over three days with leaders of 13 different textile or textile-adjacent associations, an innovation hub and municipal waste management authorities, including smock weavers and former cotton farmers. The meetings took the form of guided interviews with standardized questions asked through conversation, covering topics such as the activities of each group interviewed, the awareness of principles of circularity, circular opportunities and waste management practices within the sector. Similar conversations were held during a day trip conducted by The Or Foundation research team in Awutu Senya, Central Region, with two women led groups involved in upcycling textiles.

2.7 | Circular Opportunity Mapping Multi-Stakeholder Consultation

On June 16, 2025, The Or Foundation held a multistakeholder engagement and data validation workshop in Kumasi dedicated to presenting and discussing the findings from the Circular Opportunity Mapping data collection studies in Kumasi and Tamale.

60 people participated in a day-long workshop, including stakeholders from Tamale, Kumasi and Accra. Stakeholders represented included fashion designers and upcyclers, tailors, kayayei, waste managers, educators, municipal leaders, entrepreneurs and journalists.

The workshop, diverse with representation from the Northern, Ashanti and Greater Accra regions, collected both qualitative and quantitative insights from participants through structured group breakout tasks to understand how different actors within the value chain could work together towards a circular transition for the textile industry in Ghana.

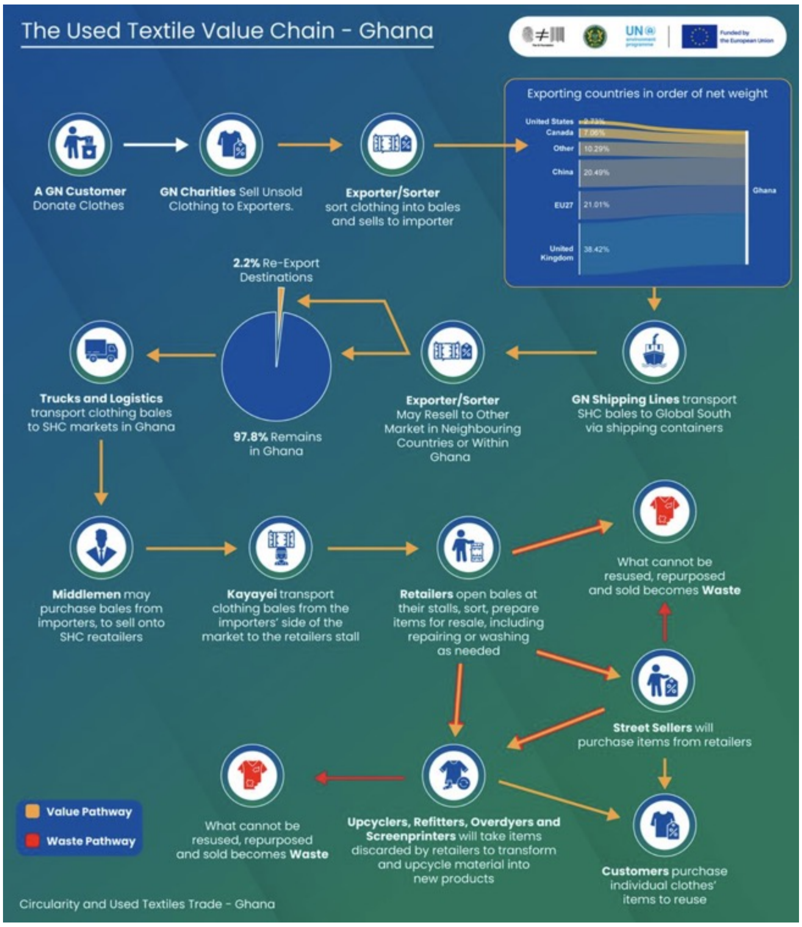
2.8 | Secondary Sources

To supplement primary research, The Or Foundation has also drawn on existing bodies of work, including, but not limited to, industry reports, academic literature, open access databases such as the World Bank and UNComtrade, as well as government websites such as Ghana Statistics Services.


AKA SIKA

3 | Value Chain Mapping and Baseline Assessment

Figure 3.1 | Overview of The Used Textile Value Chain[41]



3.1 | Primary Textile Production | Material Flows from Ghanaian Tailors and Printing Operations

In 2023 Ghana imported US $176M of Light Woven Cotton cloth (HS 5208)[42].

In **2023** Ghana imported **US $176M** of **Light Woven Cotton cloth** (HS 5208)

Much of this woven cloth may have value added in Ghana through dyeing and printing operations, utilizing hand batik methods, industrial wax print (at Akosombo Industrial Company Limited) and roller screenprinting. Waste water and chemical treatments vary drastically across these operations. Few are circular. At Akosombo Industrial Company Limited, which prints millions of yards of textiles a year and once housed a now defunct spinning and weaving operation, a series of sand filters and dilution tanks are used to ensure waste water is only discharged once below limits established and occasionally

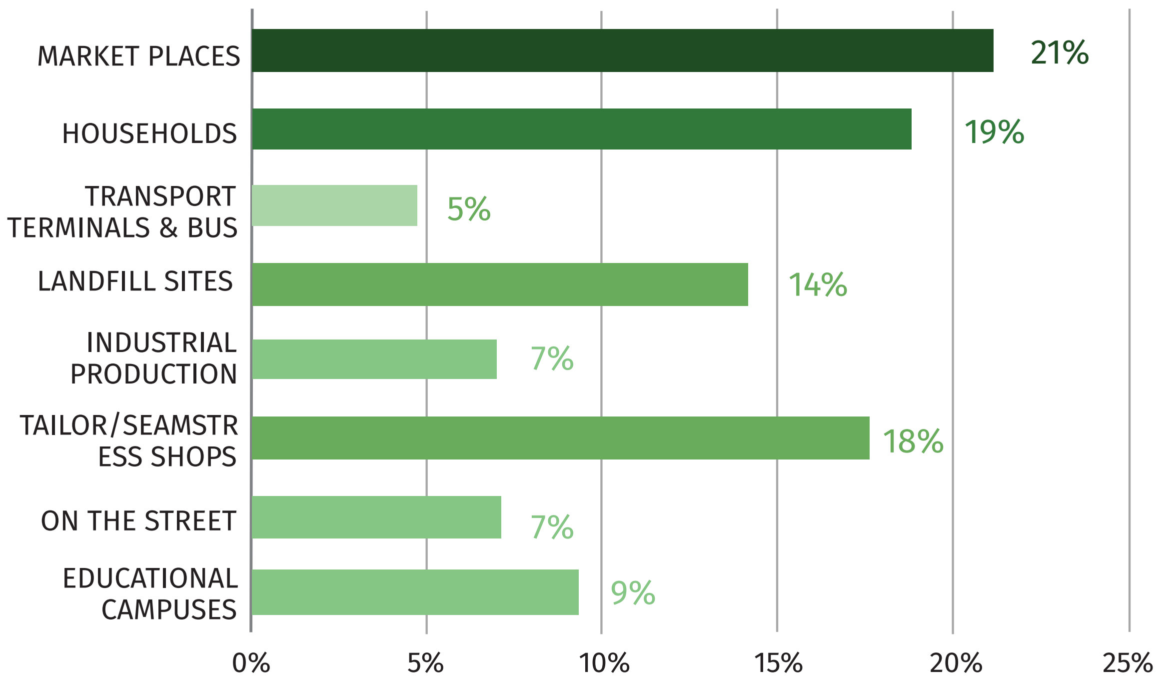
41 United Nations Environment Programme and The Or Foundation on Circularity and Used Textile Trade in Ghana
42 UN Comtrade

monitored by the Environmental Protection Agency. At smaller batik dyeing operations, which may process a few thousand yards of textiles annually, dye-laden water may end up dumped on the ground or in gutters. Dye waste water treatment, both in first hand production as well for overdying secondhand garments as discussed later, presents an opportunity to support stronger circular practices of water recirculation and cleaning.

Cut and sew operations at both the microenterprise and the industrial level are found throughout Ghana, including the pervasive practice of tailors making garments, often custom ordered, with predominantly printed fabric produced through processes mentioned above or imported already printed into Ghana. Off-cuts from dressmaking and tailoring do present a significant opportunity to apply circular principles, however, with micro-enterprises of dressmakers and tailors geographically dispersed across Ghana, there is limited data and no uniform process to connect the supply of offcuts with the demand of offcuts. The majority of relevant stakeholders questioned about quantities of offcuts noted that they do not keep track of their offcuts or waste material, yet 34% of business owners surveyed in Tamale and Kumasi reported an interest and readiness to offer on-demand repair or alteration services and an additional 34% reported an interest to offer upcycling workshops for their customers, indicating that upcycling and repair may have market traction as entry points to circularity for businesses and consumers.

Survey respondents outside of Accra identified key hotspots where textile waste or discarded items and offcuts are most frequently found based on their experiences. Such stakeholder feedback provides clear indication that centralized markets are the top location where textile waste is likely to be found, and emphasizes the strategy of developing replicable processes in Kantamanto Market that can then be disseminated throughout the country.

Graph 3.1.1 | Key hotspots for textile waste identified by Survey respondents



3.2 | Secondhand Clothing Trade | Material Flows and Factors

As the term Secondhand Clothing Trade suggests, the key material input of the trade is used clothing, typically donated or discarded from countries in the Global North; in this regard the input and practice of reuse is inherently circular, but that does not mean the trade in its current state is without significant social and environmental concerns. In 2023 Ghana imported 148,031 metric tons of HS Code 6309, considered "worn clothing and other worn articles" with a total value declared import value of USD 172,518,536 or approximately Ghana Cedi (GHS) 2 Billion at the 2023 average exchange rate.[43]

In **2023** Ghana imported **148,031** metric tons of HS Code 6309, considered "**worn clothing** and other **worn articles"**

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Ghana was the **world's second largest** net importer of **second hand clothing** in **2023.**

These volumes made Ghana the world's second largest net importer of secondhand clothing in 2023, behind Kenya.[44] The primary countries of origin of secondhand clothing imports into Ghana are the UK, the EU27 and China.

Table 3.2.1 | shows the top five exporters of HS 6309 to Ghana as compiled from UN Comtrade data for 2023.

Origin of Bale	Percent from UN Comtrade
United Kingdom	38.42%
EU27	21.01%
China	20.49%
Canada	7.06%
United States	2.73%
Other	10.29%

43 See Appendix
44 See Appendix

Nearly every single secondhand garment arriving in Ghana arrives inside of 55kg (predominately from Europe, the UK and North America) or in some cases 100kg (predominantly from Asia) compressed bales with around 400 bales packed inside of 40 foot long shipping containers. Nearly every single bale is pre-sorted before shipping to Ghana whereby exporters categorize clothing by garment type and attempt to ensure that every garment is in wearable condition. Dealing with such large quantities of garments makes this work a challenging job. Secondhand retailers in Ghana report that sorting is not always performed accurately, but that some degree of sorting, grading and categorizing is always performed. Once in the country bales are sold by importers to secondhand retailers and in some cases directly to secondhand upcyclers. The secondhand retailers purchasing bales from importers do not have an opportunity to inspect the contents of the bale before buying it. While they know what category of garments is inside of each bale, for example men's dress shirts as opposed to ladies joggers, they do not know what the individual items look like. In that regard they are purchasing their inventory site-unseen, thereby taking significant risk.

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or in some cases **100kg** (predominantly from Asia) compressed bales with around **400 bales** packed inside of **40 foot** long shipping containers.

3.2.1 | A Colonial Legacy | Extracting Resources from the Most Vulnerable

The secondhand clothing trade arose during British colonial rule, and continues within a colonial legacy whereby businesses in former colonial powers are making money by sending items that are underwanted in their country to Ghana. While there has traditionally been a common perception within exporting nations across the global north that secondhand clothing is a charitable activity, it is not. Secondhand clothing retailers, predominately women, are sending over USD 172 million to the Global North on an annual basis, and spending much more with importers and middle men in Ghana taking a significant cut of the economic pie available.

There are over 100 different categories of garment types by which bales are sold. The top three garment types reported by survey respondents are children's wear, ladies' tops and ladies' dresses. While there are many pathways that an individual garment may journey once in the market, often varying by garment type, the journey almost begins the same way: the selection process. The journey almost always ends one of two ways: sold to customers or discarded as waste.

Immediately upon opening a bale, a retailer, an upcycler, or a selector, will begin sorting through the garments, grouping items based on their value within the market and the potential pathways available for each garment. This process, known colloquially within the market as the selection process, is performed on nearly every bale being opened in Kantmanto Market, even though 100% of retailers report buying pre-sorted bales and 87% of retailers report buying Grade A (high quality) bales. Bales are sorted into four selections garment by garment. The first selection is considered the most valuable and generally has the fewest garments The fourth selection is considered the least valuable and the colloquial term used to describe it Asei means "under' and is often used interchangeably to mean waste. Since The Or Foundation began analyzing the selection process in 2016 and first published a report based on hundreds of data points in 2019, fourth selection has grown. In 2019 The Or Foundation's research found fourth selection garments to be around 5% of every bale. At the time this 5% of material was immediately discarded as waste (with other unsold material eventually added to it)[45]. In 2024, this number was 22%. As a result the economics underlying a four fold increase in fourth selection have changed practices of retailers in the market. Compared to data derived from a similar survey instrument and published in 2019, more retailers report trying to sell the fourth selection material, which is still widely regarded as waste, at a loss, as retailers must try to recoup some of their money spent on the bale and other costs of operating a business in the market. Multiple stakeholders have informed that due to the lowering quality of garments overall, an item of clothing considered first selection in 2025 would have been considered third selection in 2015. Meaning that the quality of all garments has reduced.

Table 3.2.2 | Overview the Selection Process conducted by Kantamanto Retailers when opening a bale

1st Selection	2nd Selection	3rd Selection	4th Selection
Like new, on trend, relevant size, durable seams, no stains/ tears.	Clear signs of wear but not damages beyond repair. Relevant size and relevant style.	Heavy wear, requires investment to make (re)sellable, unsuitable for tropical climate.	Known locally as "A3ei" or "the under". Clothing that is not sellable for direct reuse, and, in some cases may be unwearable, [46] this includes, but is not limited to, non-clothing or mis-sorted items.

Table 3.2.3 | Average percentage composition of selections in clothing bales from a Kantamanto retailer

	First Selection	Second Selection	Third Selection	Fourth Selection
Mean* Percent Reported in Bale	19.34%	28.02%	30.59%	22.04%
***Mean is used here for simplification, however, due to the dynamic state of the trade, a confidence interval can be applied.**				

Influencing the selection process, Surveys have identified that the key factors determining value of a secondhand garment is material quality, defined as the durability, texture, and overall craftsmanship of the fabric, including factors such as resistance to wear and tear. Material quality may affect a garment's comfort, longevity, and how well the garment retains its shape and appearance over time, which is closely related to fiber type, the

45 Skinner, J. Fashioning Waste. https://theordev2.s3.amazonaws.com/2023-01/JBransonSkinnerThesis.pdf

46 96% of respondents find on average 5 garments per bale are new/unworn that are slashed either sometimes or all the time. These garments, if intentionally destroyed, are generally regarded as 4th selection pieces with little to no resale value.

second most critical factor in determining a garments value.

Table 3.2.3 | Average percentage composition of selections in clothing bales from a Kantamanto retailer

Material Quality	Fiber Type	Clothing Style	Clothing Colour	Clothing Condition
1	2	3	4	5

Conversely waste is most heavily influenced by clothing condition, defined as the physical state of the garment, including wear and tear and the presence of stains, holes, fading, piling. Clothing condition is also related to a garment's structural integrity and function, for instance, whether or not zippers work.

Table 3.2.4 | Identified key factors determining the value of items within the selection process, where 1 = most important factor in order of priority

Clothing Condition	Material Quality	Fiber Type	Clothing Style	Clothing Colour
1	2	3	4	5

Relating the two sets of variables determining value and waste during the selection process shows that even a garment that is technically rewearable, but in poor condition, for example, stained or showing signs of heavy use, may be regarded as waste despite the underlying high quality of garment construction and fiber type. The garment remains wearable, but secondhand clothing resellers cannot find customers willing to pay to wear the garment as it is. If that same garment has high enough quality construction and a desirable fiber, there is a chance that it may be salvaged through remanufacturing or repair, whereas if that garment is poorly constructed with an undesirable fiber type, it is more likely to be discarded as waste, not worth the investment to upcycle it. It is critical to note that clothing condition and wearability are not necessarily the same thing. For instance, a missing button does not make a garment unwearable, but it does require investment to buy a new button and sew it back on, an investment which in some cases retailers and upcyclers simply cannot afford. Even garments in relatively good condition may require uplifting and repair, such as removing piling, ironing or washing in order to connect with a customer. Such activities are considered preparation for reuse, which is a term with significant relevance in emerging policies on waste management and circularity as discussed in subsequent sections. In the case of Kantamanto Market, preparation for reuse is ubiquitous, meaning that garments, even those sold directly to end consumers, are not necessarily finished products when imported compressed inside of bales.

While bales are sold by garment type, which is related to style, and in some case bale wrappings are translucent so that retailers can see the colors of the first layer of garments inside, the three most critical factors influencing whether garments will actually be resold and thus whether there is waste and whether a retailer will earn income are unknown until the bale is open and the selection process takes place. This means that purchasing and opening a bale is in effect a gamble, a term that multiple stakeholders have attributed to the work.

Surveys conducted in 2024 indicate that between 10.05% and 22.97% of garments in bales opened in Kantamanto Market are never sold in any form and regarded as waste within two weeks after bale opening.

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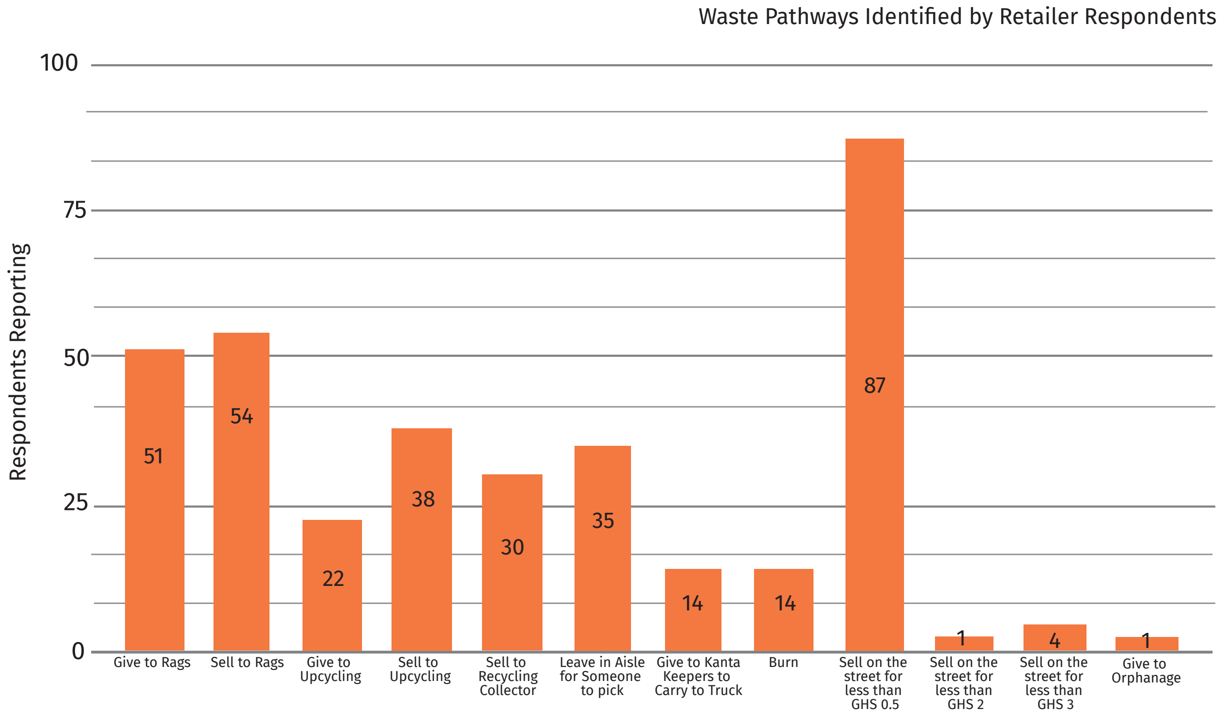
In addition, at least 20% of material that is sold for such low value that it is regarded as waste by the retailers selling it. In fact, 96.76% of retailers regard selling for extremely low cost to upcyclers, rag makers, recycling collectors or street hawkers as a waste management pathway. (The Or Foundation is the largest recycling collector operating in Kantamanto Market, purchasing hundreds of thousands of garments for less thant USD 0.2 each annually.) In total this means that between 32% and 43% of material entering the secondhand trade at Kantamanto Market for reuse is likely to leave the secondhand retailers who purchased the material as site-unseen bales regarded as waste. The majority of retailers' stalls do not have secure storage (though there has been a noticeable increase in stall enclosures throughout the rebuilding of the market after the New Years Fire). As a result, retailers must pay for storage in centralized storage points. Retailers are not inclined to pay daily storage costs, increasing their costs of goods, for material they doubt will ever sell, so garments are discarded. Nearly 84% of retailer survey respondents report regarding items that have not sold within two weeks of opening a bale as waste. This does not mean that the material's journey ends there. Possible pathways deployed for waste management vary significantly by garment type and fiber type.

Figure 3.2.1 | Retailer Responses on pathways pursued to manage items considered as waste



When deployed as a waste management pathway for garments regarded as waste by secondhand retailers, upcycling may treat waste as the raw material for a new product. The practice of upcycling, which is applied as a term to broadly encompass remanufacturing, overdying and other techniques, sees roughly two million otherwise unwanted garments transformed into new products every week inside of Kantamanto Market. Surveys conducted in May of 2025 indicate that on average an individual upcycling operation, run by one person, created 669 new products every week from an average of 662 original items. Designs include turning men's shirts into children's boxer briefs, creating patchwork dresses, reusable bags, hats and split panel t-shirts, which might combine two stained shirts into one fresh shirt. This represents circularity in action and it is taking place on a significant scale. Roughly three thousand people are currently engaged in such upcycling activities in Kantamanto Market.

Material purchased in Kantamanto makes its way through Accra, across the country and throughout the West African region. Just as they enter the country in bales, secondhand garments generally transit around the country and region in the form of bales directly from imported containers, re-baled clothes purchase in bulk (often second or third selection) during the selection process, and upcycled items carefully folded, compressed and baled for cost optimization during transportation. Baling operations exist around Kantamanto Market to re-bale opened garments and move them out of the market. Of course many boutique owners, either selling on-line or in-person, may source individual items from Kantamanto, whether directly from a secondhand retailer or from an upcycler and move those newly purchased items in bags, as opposed to baling them which creates a heavy brick of textiles and can damage garments.

Ghana officially reexported around USD 1,485,000 of secondhand clothing to African countries such as South Africa, Côte d'Ivoire, Senegal, Zambia, Kenya, Burkina Faso, Mali, Niger, Benin in 2023 [47].

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Importantly, it is considered common knowledge that porous borders, in part as an intended result of regional trade agreements, mean that customs data between West African countries is likely not comprehensive. Optimizing Harmonised Tariff Codes for the circular economy and in the interim providing customs guidance for upcycled products are two policy and regulatory aspects discussed in subsequent sections of this report.

3.3 | Baseline Performance Indicators

Primary Textile Production | Economic Value

Despite Ghana's rich history in textiles, Ghanaian textile exports (newly manufactured, exclusive of HS6309 reexported) totaled US$49million in 2023, equivalent to 0.18% of Ghana's total exports by value that year. Recent trade data indicates that raw materials for spinning and weaving are almost entirely imported.

Whether or not upcycled garments are considered an output of primary textile production in the same manner as a newly manufactured garment from virgin materials is regarded as a new product, is part of the nuance of the circular economy, where tools of measurement must align with the reality the there is no bottom or top of the supply chain, yet for the purposes of the statistics considered in this report as part of primary textile production, upcycling and other circular methods of production are excluded.

Ghanaian textile exports totaled **US$49million** in 2023, equivalent to **0.18%** of Ghana's total exports by value that year

Stakeholders report that textiles inputs are the highest cost for primary producers, with an average of GHS 1991 spent every month. Threads and notions are the second highest expense with around GHS 1049. The median sale price reported by stakeholders for a finished garment is GHS 300.

Primary Textile Production | Environmental Impact

Only 17 of 51 primary production stakeholders surveyed track their offcut waste. Of those who do, the mean reported is 33 kilograms every month.

Rates of energy demand, water usage and carbon emissions among new textile and new garment production businesses vary so widely that calculating a true but unknown mean would require an impossibly large

47 UN Comtrade – See Appendix

sample size. Some stakeholders use hand or foot powered machines. Others have hydropower and biofuel boilers. Noting the statistical implausibility of accurately accounting for the variance in types of activities, 7 of 51 stakeholders (13%) queried have reported attempting to conduct a life cycle analysis (LCA) of their product supply chain, all focused on energy and water footprints or one or the other. Three additional stakeholders reported numbers independently. Results are reported in Table 3.3.1. At the same time, no stakeholders have been able to calculate their greenhouse gas emissions, leaving a wide data gap on environmental impact.

Table 3.3.1 | Responses on environmental impact indicators in the primary textile value chain

METRIC/VARIABLES (per month)	VALID ENTERIES	MINIMUM	MAXIMUM	MEAN	MEDIAN
Energy Used (kWh)	8	55	300	142	113
Energy Spent (GHS)	3	200	7,500	3900	3900
Water Use (m^3)	9	20	930	201	100
Water Use in Drums/ Barrel	3	3	6	5	5
Water Spent (GHS)	4	100	200	162	175

Secondhand Textile Trade | Informal Divide

All retailer respondents from surveys in Kantamanto Market state they do not issue VAT receipts to customers upon a sale, and only 15% of retailer respondents state they are always issued VAT receipts upon a bale purchase. Only 34% of survey respondents in Kantamanto Market report having a registration with a government agency or municipality. With low governmental involvement as well as severely lacking market infrastructure, 98% of respondents in Kantamanto Market report that they have no access to health services while at work in the market.

Secondhand Textile Trade | Despite High Circularity, Economic Returns Remain Low

Despite Kantamanto's ability to successfully re-circulate millions of garments flowing into the market on a weekly basis, this does not always translate into economic inclusivity for everyone involved. The average bale costs reported through surveys in 2024 was GHS 3,479.90, equivalent at the time to around USD 231. This represents a 237% increase from the mean bale price of GHS 937 reported through a similar survey instrument conducted in 2019, which is partly attributable to 210% devaluation of the Ghana Cedi against the US Dollar during the five year period, highlighting the economic volatility of reliance on imported materials[48].

The average **bale costs** reported through surveys in **2024** was **GHS 3,479.90,** equivalent at the time to around **USD 231.** This represents a **237% increase** from the **mean bale price** of **GHS 937** reported through a similar survey instrument conducted in **2019.**

With 78.3% of retailers reporting that 52.6% of the garments inside of their bales are on average below the per garment bale cost of GHS 20.2 or USD 1.34 as of November 2024, this is often a losing gamble. Survey Data shows that on average Kantamanto retailers experience a loss of GHS 105 per bale opened (US$ 6.77) with significant gender differentiation.

Survey Data shows that on average **Kantamanto retailers** experience a loss of **GHS 105 per bale** opened **(US$ 6.77)** with significant gender differentiation

For male identifying retailers, the median net income equates to GHS 500 per bale compared to female identifying retailers reporting a median net loss of GHS 250 per bale. 87% of respondents surveyed in Kanatamanto Market report experiencing debt during their time working in the market.

Upcyclers report a median sale price of GHS 15 per upcycled item, which at the time of surveying was roughly USD 1 per item, meaning that the majority of upcyclers are operating in a high volume, low value business model.

48 Skinner, Fashioning Waste.

Table 3.3.2 | The sale price range of upcycled goods reported by Upcyclers

Lowest Upcycled Sale Price	Lower Quartile Upcycled Sale Price	Median Upcycled Sale Price	Upper Quartile Upcycled Sale Price	Highest Upcycled Sale Price
GHS 0.5	GHS 6.375	GHS 15	GHS 80	GHS 750

3.3.1 | Living Wage as a Pillar of Sustainable Development

The UN Global Compact has defined the living wage as an essential pillar to meeting Sustainable Development Goal 8 - Decent Work and Economic Growth. Here, a living wage is defined as the "level that is necessary to afford a decent standard of living for workers and their families, taking into account the country's circumstances and calculated for the work performed during normal hours."

A Living wage is deeply context specific, meaning there is no global standard to calculate or compare living wages across countries. For Ghana, The Global Living Wage Coalition places a living wage at ~GHC 3,609 per month (~GHC 120 per day) with variations across urban, peri-urban and rural areas.[49]

This is in comparison to the international poverty line established by the World Bank to be earning US$ 3.00 (~GHC 26.55) per day.[50]

Secondhand Textile Trade | Circularity at the End of a Linear Economy

Retailers in Kantamanto Market report opening a mean average of 2.3 bales per week. With a wide range from one bale to twelve bales per week as the lowest and highest reported volumes.

Table 3.3.3 | The range of the number of bales Retailers report opening each week

Lowest reported Volume of Bales Opened Per Week	Lower Quartile of Bales Opened Per Week	Median Quartile of Bales Opened Per Week	Upper Quartile of Bales Opened Per Week	Highest Reported Volume of Bales Opened Per Week
1	1	2	3	12

With the majority of retailers reporting that unsold garments are regarded as waste within two weeks, and with retailers opening at least one and up to twelve bales a week, clothing moves through Kantamanto Market with the same frequency as fast fashion items. Despite the work of market members to recirculate millions of garments every week, fast fashion items coming into a circular system overwhelm that system and lower the value of goods for everyone involved.

49 https://www.globallivingwage.org/living-wage-benchmarks/ghana/

50 https://datatopics.worldbank.org/world-development-indicators/themes/poverty-and-inequality.html

While there may be no uniform definition of waste in a circular economy, observations in Kantamanto Market indicate that an item can be considered waste when an individual has either no use for it, or cannot profit from it. Slimmer margins mean that there is less for retailers and upcyclers to invest in recovering value from a product, creating a cycle whereby economic losses cause waste. If the value of a garment determines whether or not it is regarded as waste, and there are no resources to invest in raising the value of the garment, then it is more likely that the garment will be considered waste, even if a retailer tries to recover some of their costs by selling the garment in bulk for pesewas (pennies). 23% of retailers report that they do not deploy any method for trying to capture value from valueless garments. The value of garments is thus linked to whether those garments will be considered waste and the environmental impact of such waste.

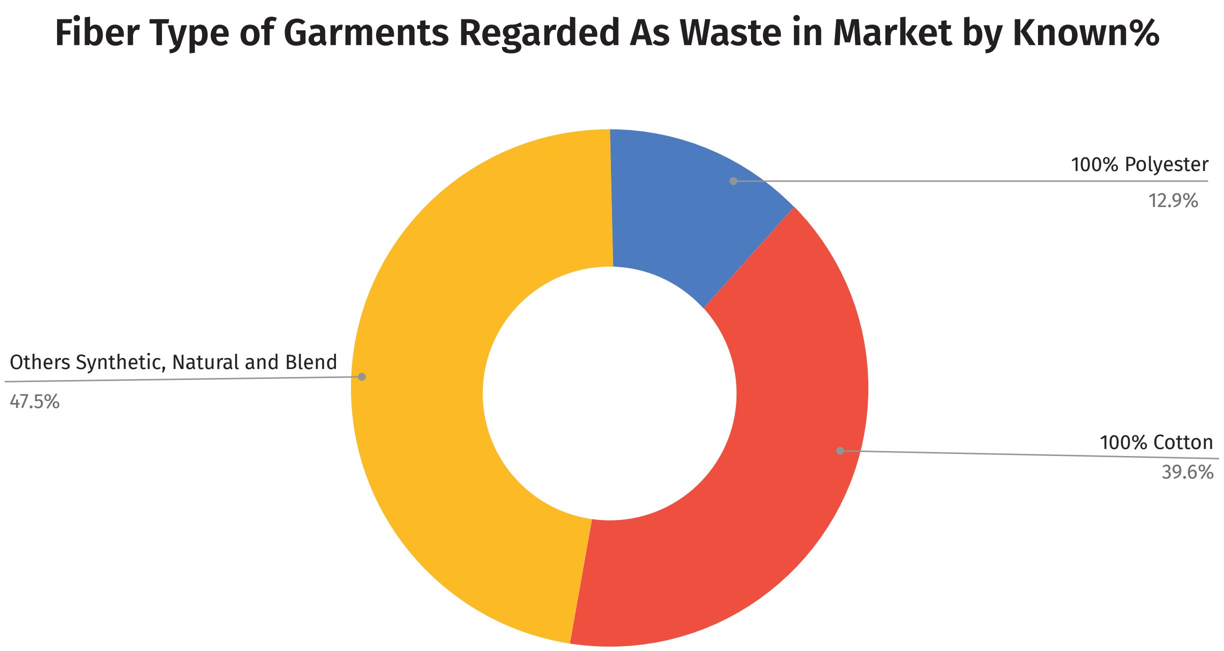


Figure 3.3.1 | Shows the fiber type of garments found in the waste stream of Kantamanto Market. The largest single known waste stream is cotton, followed by polyester, but multi-fiber blended fabrics and other synthetic fiber types make up nearly half of the entire waste stream.

Second Hand Textile Trade | Emergence of Waste Hotspots

Where there is limited waste management infrastructure to process textile waste leaving Kantamanto market, material flowing out of the market as waste presents a major challenge that impacts numerous communities.

Figure 3.3.2 | Map of Key Waste Sites in Central Accra. Background Imagery, ArcGIS.

With limited municipal capacity, waste management practices for uncollected material include open burning, dumping in informal settlements (including Old Fadama in close proximity to kayayei residences), and sweeping into gutters. Material dumped in informal settlements and swept into gutters eventually wash out to sea. Aside from the economic loss of the material for market retailers, the most tangibly impacted communities are those reliant on fishing as their livelihood at Jamestown Fishing Beach.

Since October 2021, The Or Foundation's team of citizen scientists has been monitoring and observing seven kilometers of Accra's coastline transecting through two major fishing harbors and multiple beachfront fishing communities where textile waste can be observed in ecosystems. Textiles washed out to sea regularly become entangled amongst themselves, including other waste items to form tentacles as shown in Figure 3.3.3.

Figure 3.3.3 |Textile Tentacles at a beach cleanup operated by The Or Foundation's Tide Turners team in Jamestown, Accra in January of 2025. R) A Tag from a global fashion brand found in the textile tentacle

Between October 2021 and July 2025, The Or Foundation has counted the number of tentacles that have appeared on the coastline, which has amounted to 4,275 textile tentacles.[51] This research and subsequent work has provided key insights to inform the waste management strategies of the market for the Accra Metropolitan Assembly (AMA).

Second Hand Textile Trade | Waste Hotspots also give rise to Microfibre Pollution

Pre-publication research from The Or Foundation indicates that water samples contain microfiber levels "100x greater" than comparable studies in other urban environments around the world and directly attributable to textile waste dumped in both unsanctioned and sanctioned dumpsites, including one site run by a formal waste management company Zoomlion along the Korle Lagoon. By establishing a gradient from north of the dumpsites as the river current flows past the dumpsite and out to sea, it is clear that piles with visible textile waste are leaching microfibers into the water and that whole garments are entering the water with a strong direct correlation (0.59 Pearson correlation coefficient) between identified brands and fibers in the market and identified brands and fibers washing up on the beach after moving through the lagoon and gutter system.

51 Counting the number of tentacles have been the preferred methodology due to technical challenges to separate garments individually once they become entangled. Equally, tentacles can be as long as 30 foot, and must be cut via machete before disposal, creating challenges with weighing tentacles which must be balanced against clean up efforts

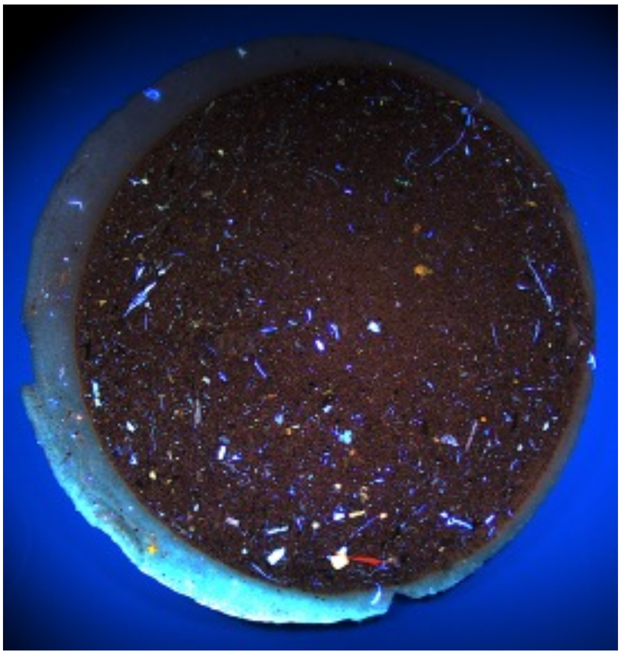


Figure 3.3.4 | A filtered water sample under UV spectrum light of 360 to 380 nm with a 415 nm longpass filter showing microplastic fibers, and microplastics from water taken from the Korle Lagoon in Accra, adjacent to a known dumpsite. Image, The Or Foundation

4 | Identification of Systemic Barriers and Enablers

Infrastructure Challenges | Linear Waste Management Insufficiencies

The Accra Metropolitan Assembly (AMA) is responsible for Accra's waste management infrastructure to process waste across the city, including markets like Kantamanto. Under its mandate, secondhand garments leaving the Kantamanto Market as textile waste may be transported to the closest official municipal dumpsite. Since the only sanitary and engineered landfill servicing Accra exploded in 2019 due to exceeding its capacity, which is partially attributed to a high volume of secondhand clothing, the Adepa dumpsite in Nsawam is used by the AMA and its various waste management contractors. With uneven roads and heavy traffic the trip to Adepa can take more than three hours one way from Kantamant Market. With limited vehicles, this means that only one municipally contracted truck is able to service Kantamanto Market every day. To address this challenge and the resulting environmental overflow, The Or Foundation has organized a market-based team of waste collectors known as the Kanta Keepers and an additional private waste truck on a regular basis to amplify the municipal waste collection and hauling capacity. Yet the limitation of linear waste management capacity can be an enabler of circularity, providing impetus to direct investment toward circular infrastructure as a future facing growth driver.

Infrastructure Challenges | Kantamanto Market Infrastructure

The Kantamanto Market infrastructure itself is unsafe, and significantly underfunded relative to the scale of business activity. Open electrical wiring on top of highly flammable materials such as wood and textiles, compounded by the presence of open cooking, and the absence of fire lanes, the market is a major fire hazard. The market has three major fires in the last five years, including the most recent fire on New Year's. The Or Foundation has installed over 1000 fire extinguishers across Kantamanto Market, and since the New Year's fire has coordinated across market sections, the Electricity Company of Ghana, the Accra Metropolitan Assembly and the Ghana National Fire Service to connect every stall with electricity.

In addition to fire risk, due to heavy pavement and gutters clogged with textile waste across the market, Kantamanto frequently floods during the Ghanaian Rainy Season. In collaboration with the AMA and market members, The Or Foundation has organized a community task force to maintain drainage canals free of waste so as to reduce flooding risk and rejuvenate the nearby waterbody of the Korle Lagoon.

Despite these efforts, flooding, fire, dust, heat and overall infrastructure shortcomings present major economic challenges for the secondhand market. Not only do floods and fires destroy inventory, but particularly in the face of increased competition and consumer options – from new malls to online retail, few customers come to the market. 18% of retailers report that the market has changed since they began working in Kantamanto Market due to increased competition, more retail options and fewer customers in the market.

Infrastructure Challenges | Narrow Aisleways have given rise to Dangerous Head Carrying

The narrow aisleways that characterise Kantamanto prevent the transportation of secondhand clothing bales, both opened and unopened, across the market in a dignified and safe manner. Instead, the predominant form of transportation is headcarrying, which inside of the market is frequently performed by young women. Headcarrying 55kg secondhand clothing bales can have a crippling effect.

There is existing research, although limited and inconclusive, to suggest that there is a safe-limit with respect to weight that a person can safely carry a load on their head. Research published in the National Library of Medicine (1995) placed the safe-limit of carrying up to 20% of your own bodyweight[52]. In Kantamanto, women, typically aged between 15 - 40, but can be as young as 9 years old as observed by The Or Foundation, can carry loads of up to 55kg, or in many cases more than their entire body weight. For this work, women typically receive a piece rate of between US$ 0.30 to US$ 1.00 per bale per trip. Headcarrying in Accra, colloquially known as kayayei work, meaning she who carries the burden, is typically carried out by women who have migrated to Accra from rural areas of northern Ghana.

In Kantamanto, **women**, typically aged between **15 - 40,** but can be as young as **9 years old** carry loads of up to **55kg,** or in many cases more than their **entire body weight.**

Existing literature is clear that headcarrying can lead to acute injuries to the spinal cord, including paralysis, and detrimental impacts on reproductive health organs, on top of physical pains and distress to the women.[53] [54] [55] These findings have been confirmed by The Or Foundation's own chiropractic research study conducted with over 120 women working as kayayei in Kantamanto Market. The Or Foundation's study, conducted between 2021 and 2022 in collaboration with Dr. Ashetey of Nova Wellness Centre, found that the physiological effects of headcarrying can become irreversible after two months of work as a kayayo. During a multistakeholder session on February 26, 2025, two stakeholders representing the Kayayei

52 https://pubmed.ncbi.nlm.nih.gov/7723841/
53 https://www.sciencedirect.com/science/article/abs/pii/S0277953613002281
54 https://pubmed.ncbi.nlm.nih.gov/7723841/
55 https://pmc.ncbi.nlm.nih.gov/articles/PMC7904483/

population reported that multiple deaths of women working as kayayei have occurred due to headcarrying and that sexual abuse among the population is a significant concern.

In observance of the globally recognised international standards, such as the International Labour Organisation Conventions and the UN Sustainable Development Goals, key social inefficiencies identified within dangerous headcarry present within Ghana's secondhand clothing trade include:[56] [57]

Table 4.1 | Overview of Globally Recognised International Standards as they relate to dangerous headcarrying

Heavy Loads provide a risk to women's immediate and long-term health outcomes	- ILO Convention No.155 - Occupational Safety and Health Convention (1981) - SDG 3 – Good Health and Well-being - SDG 8 – Decent Work and Economic Growth
Girls as young as 9 years old also participate in the trade	- Ghana's minimum working age is 15 years old[58] - ILO Convention No. 182 – Worst Forms of Child Labour Convention (1999) - ILO Convention No. 138 – Minimum Age Convention (1973)
Women are the disproportionate labour participants in dangerous headcarrying	- SDG 5 – Gender Equality
Trips can exceed a kilometer earning between US$ 0.30 - 1.00	- SDG 1 – No Poverty - SDG 10 – Reduced Inequalities

Social Challenges | Informality and Division

100% of retailer survey respondents within the secondhand textiles trade report not issuing VAT receipts. This can in part be attributed to the graduated VAT system based on annual revenues. Businesses with revenues exceeding GHS 500,000 annually collect and pay a standard 15% VAT in addition to an array of levies. Businesses with revenues between GHS 200,000 and GHS 500,000 annually pay a reduced rate of 4% combined VAT and Covid-19 Levy. Businesses with annual revenues of less than GHS 200,000 qualify under de minimis to not collect and pay VAT and accordingly to not issue VAT receipts.

The challenge presented by not issuing VAT receipts is that businesses seeking to account for money spent and show expenses against income, cannot deduct an expense without a VAT receipt.[59] This essentially prohibits larger businesses from buying from smaller,

56 https://www.ilo.org/international-labour-standards/conventions-protocols-and-recommendations

57 https://sdgs.un.org/goals

58 https://melr.gov.gh/files/publications/Ghana_Accelerated_Action_Plan_Against_Child_Labour.pdf

59 "Ghana Revenue Authority Issues Multiple Administrative Guidelines on Income Tax and VAT," EY Global Tax News, May 28, 2024, https://globaltaxnews.ey.com/news/2024-1068-ghana-revenue-authority-issues-multiple-administrative-guidelines-on-income-tax-and-vat.

often informal businesses, creating, in effect, two parallel economies. For instance, if a corporation wants to commission upcycled uniforms for all of its employees, without a VAT receipt the corporation will not be able to claim the cost of the uniforms as an expense against the corporation's tax commitments to the Ghana Revenue Authority.

The secondhand clothing trade in Ghana exists almost entirely within the informal economy where the majority of businesses that are registered are registered with the local government, but not with the Ghana Revenue Authority, meaning that no VAT receipts are provided. In addition to presenting a hurdle to establish business ties between formal and informal enterprises, operating outside of the VAT system means that much of the economic activity occurring within the sector is not tracked by government, and thus inclusion within potential development projects that could support the sector is lacking.

In addition to the divide between formal and informal economies, Kantamanto Market itself has multiple sections, each with different land lease arrangements, landlords and rules. This has been a major impediment to mobilizing infrastructure improvements that require holistic planning. Over the past three years The Or Foundation has actively engaged market members, leaders and landlords across sections to develop a comprehensive plan for upfitting market infrastructure and eliminating dangerous headcarrying. After the New Years Fire market leaders from each section signed a collective agreement to work together on fire safety measures, for which The Or Foundation is leading the fabrication of a small demonstration as of August, 2025. Beyond the challenge of infrastructure planning, fragmentation across informal sector stakeholders, whether in new production or within the secondhand trade, leads to weak negotiating power both upstream (buying materials) and downstream (selling products or securing transport).

While market sections representing thousands of upcyclers and secondhand retailers build cohesion, many secondhand importing businesses, of which stakeholder interviews and observations indicate there are approximately 100 operating in a coordinated fashion to set prices of bales, have publicly opposed efforts of secondhand retailers and upcyclers to address concerns of clothing quality and waste, and to work toward unified price negotiation. During the February 26th multi-stakeholder dialogue organized by The Or Foundation, UNEP and MEST representatives of the trade association for importers continuously refuted and interrupted submissions by market retailers and upcyclers. As retail and upcycling market members alongside groups such as The Or Foundation continue to build bridges with importing businesses so as to encourage importers to support market infrastructure upfitting and other initiatives, there is also an opportunity for retailers and upcyclers to begin sourcing secondhand clothing domestically, closing the loop of the circle economy in a resilient manner and mitigating against currency fluctuation.

National Policy Landscape

Currently there are opportunities to strengthen and develop policies in support of the textile industry within Ghana. The longest standing policies in place directly related to textiles are intended to promote local manufacturing and the hygienic recirculation of secondhand clothing, although challenges exist in implementation and enforcement of policy objectives. Beyond this, the main primary policies impacting Ghana's textile sector are related to tax and tariffs as shown in the table below. As of August, 2025, the Ghanaian Ministry of Trade, Industry and Agribusiness has introduced a policy proposal on textiles for stakeholder comments. The proposal puts forward vision to expand high volume, low value new garmenting operations in export processing zones. More stringent environmental and labor rights protections are necessary to synchronize this policy proposal with a vision for the circular economy.

In Ghana's existing environmental policies, including the Environmental Protection Agency Act of 1994, there is no explicit mention of textiles and its associated environmental impacts. This also includes the absence of specific laws on regulation overseeing the effective disposal or recycling of textile waste.

Key gaps identified through this review are the lack of policy around used textiles and secondhand clothing in general along with clear catalysts for circularity in the textile sector in Ghana.

Key Finding

Key gaps identified through this review are the lack of policy around used textiles and secondhand clothing in general along with clear catalysts for circularity in the textile sector in Ghana.

An Overview of Existing National Policies and their Impact on Ghana's Textile Industry

POLICY/ REGULATION	DESCRIPTION	IMPACT ON TEXTILE TRADE	LIMITATIONS	RECOMMENDATIONS
Customs and Excise (Duties and Other Taxes) Act of 1995	The specific Ghanaian basis for import duties, rests in the Customs and Excise (Duties and Other Taxes) Act of 1995, which created an updated and consolidated framework for import duties and VAT under Ghana's 1992 constitution[60].	Taxes and import duties are relevant to textiles in Ghana as there are specific rates set for product classes and specific exemptions given.	VAT marks distinguishing lines between informal and formal sectors of the economy, which presents barriers to inclusive progress toward circularity within the textile sector, as will be discussed below.	Align import duty frameworks with the reality of the preparation for reuse and remanufacturing processes necessary to sell secondhand clothing in Ghana. This should consider whether or not this material should be considered an input or a finished good. Support business relations between informal and formal sectors to overcome the defect trade barrier posed by the lack of VAT receipts to allow sourcing from the informal sector.
National Health Insurance Levy	A standard insurance levy applied to all imports passing through customs at the port of entry into Ghana.	Imported textiles are still obligated to pay duty, VAT and levies.		

60 Ghana Corporate Taxes. PwC. Retrieved September 18, 2024 https://taxsummaries.pwc.com/ghana/corporate/other-taxes#:~:text=Unless%20otherwise%20exempted%20or%20zero,Imported%20services.

POLICY/ REGULATION	DESCRIPTION	IMPACT ON TEXTILE TRADE	LIMITATIONS	RECOMMENDATIONS
The Circular Economy Roadmap and Action Plan for Ghana	Developed by the Ministry of Environment, Science, Technology and Innovation, though not yet publicly launched, the Circular Economy Action Plan and Roadmap lays out plans of action for five sectors to support circularity. This includes textiles and features the used textiles trade and clothing reuse and remanufacturing as a pillar of textile circularity.	The plan calls for infrastructural improvements for secondhand clothing markets to remain competitive, for business development programs for small enterprises working with used textiles, such as remanufacturers, and for improving financing available within the sector by regulating interest rates for circular practices.	Without a financial mechanism to support the actions of the plan, the stakeholders cited in the plan may struggle to enact the strategies laid out. Additionally the plan requires cohesion across ministries which may not yet be in place.	Utilize the plan as an entry point to build a cohesive, comprehensive strategy across ministries and financial institutions so as to align policy from throughout public sector focus areas and private sector finance around circular textile initiatives.
Exemptions Act of 2022[61]	The Ministry of Finance and the Parliament of Ghana has put in place a zero rate tax for locally produced textiles, and created an excise stamp scheme for both domestically produced and imported textiles[62].	Textiles entering Ghana are exempt from paying excise duty.		

61 Ghana Exemption Act, 2022, Ghana Revenue Authority, April 2023, https://gra.gov.gh/wp-content/uploads/2023/04/Ghana-Exemption-ACT-2022-2-1.pdf.

62 "Implementation of New Tax Laws and Amendments," Ghana Revenue Authority, accessed September 20, 2024, https://gra.gov.gh/implementation-of-new-tax-laws-and-amendments/.

POLICY/ REGULA-TION	DESCRIPTION	IMPACT ON TEXTILE TRADE	LIMITATIONS	RECOMMEN-DATIONS
The Excise Stamp Act, 2013 (Act 873)	The Excise Stamp Act, 2013 (Act 873) covering tobacco, alcoholic and non-alcoholic beverages, was amended in 2018 by the Ghana Revenue Authority to include textiles[63][64][65].	Align import duty frameworks with the reality of the preparation for reuse and remanufacturing processes necessary to sell secondhand clothing in Ghana. This should consider whether or not this material should be considered an input or a finished good.	Used textiles fall outside of the excise stamp process.	
Free Zone Act, 1995 (Act 504)	Created by the Ghana Free Zones Authority (GFZA), Free Zones are designated areas where operating businesses benefit from significant advantages in terms of duty relief by selling a product at a landed cost to customers that is considerably less than similar products from suppliers in countries without preferential trade agreements or free zones manufacturing hubs.	Free Zone benefits are accessible to textile manufacturers, including textile remanufacturers and recycling, although limited examples of textile remanufacturers and recycling are known.	Large scale textile remanufacturing and recycling is still nascent in Ghana.	Align free zone waste import practices with the potential for recycling off cuts of manufacturing.

63 “Regulatory Details,” Bureau of Radiological Protection, accessed September 10, 2024, https://www.brr.gov.gh/reg_details.php?id=MzMz#:~:text=The%20Government%20of%20Ghana%20introduced,Act%20873%20and%20its%20amendment.

64 “Regulatory Details,” Bureau of Radiological Protection, accessed September 10, 2024, https://www.brr.gov.gh/reg_details.php?id=OTc=#:~:text=Excise%20Stamp%20Act%2C%202013%20(Act,)%2C%202018%20(Act%20981)&text=AN%20ACT%20to%20amend%20the,definition%20of%20%22product%20unit%22.

65 “Excise Tax,” Ghana Revenue Authority, accessed September 10, 2024, https://gra.gov.gh/domestic-tax/tax-types/excise-tax/#:~:text=Objective%20of%20Excise%20Tax%20stamp,enable%20them%20obtain%20the%20stamp.

POLICY/ REGULATION	DESCRIPTION	IMPACT ON TEXTILE TRADE	LIMITATIONS	RECOMMENDATIONS
Legislative Instrument (LI) 1586	Legislative Instrument (LI) 1586 bans the importation of secondhand handkerchiefs, underwear, mattresses and sanitary wear[66].	LI 1586 prohibits the trade of used handkerchiefs, underwear, mattresses and sanitary wear within Ghana.	The LI 1586 has been challenging to enforce[67]. Undergarments and handkerchiefs are considered secondhand clothing under HS Code 6309 entering into Ghana in compressed bales packed tightly within a container of at least 400 bales challenging inspection at port. As a result, secondhand undergarments and handkerchiefs both are commonly found within the Kantamanto Secondhand Clothing Market and throughout the country.	Align policy with pragmatic implementation, considering, for instance, the inability to inspect contents of bales and the non-granular customs coding for all categories of items.

66 Emmanuel Sena Gohoho & Christabel Ewedji, "Assessing the Effectiveness of the Enforcement and Implementation of the Ban on Importation of Some Selected Second-Hand Items," Asian Social Science Research Journal Vol. 11, No. 7 (2024) https://www.journals.scholarpublishing.org/index.php/ASSRJ/article/view/17126#:~:text=In%201994%2C%20Ghana%20passed%20the,and%20presented%20a%20health%20hazard

67 "Standards Authority to Enforce Law on Banned Second-Hand Undergarments, Others," GBC Ghana Online, July 28, 2023, https://www.gbcghanaonline.com/general/standards-authority-to-enforce-law-on-banned-second-hand-under-garments-others/2023/

POLICY/ REGULATION	DESCRIPTION	IMPACT ON TEXTILE TRADE	LIMITATIONS	RECOMMENDATIONS
The African Growth and Opportunities Act (AGOA)[68]	The African Growth and Opportunities Act (AGOA) grants duty free access to the USA[69].	To import into the USA from Ghana without paying duty, the responsible importing party must demonstrate that value has been added to the products in Ghana, and in some cases, must indicate the original source of raw materials. Many Ghana-based free zone enterprises across sectors, including new garment and footwear production, regularly utilize these trade agreements. This allows them to operate with significant advantages in terms of duty relief by selling a product at a landed cost to customers that is considerably less than similar products from suppliers in countries without preferential trade agreements or free zones manufacturing hubs. The Ghana Free Zones Authority specifically advertises AGOA access as a key reason for textile and apparel manufacturers to invest in Ghana[70].	It is currently unclear if and how the export of secondhand clothing or new products made from secondhand clothing as a raw material could demonstrate such value addition and material sources within existing trade agreements. This presents an impediment to market access largely related to HS Code and product labeling requirements. Presently, many businesses remanufacturing secondhand garments into new products in Ghana operate at de minimis thresholds to avoid import duty into the USA.	The longevity, growth and the financially and ecologically sustainable supply chain management practices of remanufactured secondhand garments, require clearer guidelines for textiles within the circular economy to be incorporated into the trade agreements and customs practices in both the sending and receiving countries[71].

68 It is yet unclear if and how the terms of AGOA will be impacted by USA tariff realignment policies.

69 "African Growth and Opportunity Act (AGOA)," Office of the United States Trade Representative, accessed September 10, 2024, https://ustr.gov/issue-areas/trade-development/preference-programs/african-growth-and-opportunity-act-agoa

70 "Ghana Free Zones Authority," Ghana Free Zones Authority, accessed September 10, 2024, https://gfza.gov.gh/.

71 Drop shipping individual orders to customers in Europe, UK and the USA via air courier is a common practice among small upcycling brands based in Ghana, but incurs significant financial cost effectively negating any tax advantage of duty free access and undermining the carbon footprint advantage of reusing clothing as a raw material as well.

POLICY/ REGULATION	DESCRIPTION	IMPACT ON TEXTILE TRADE	LIMITATIONS	RECOMMENDATIONS
African Continental Free Trade Agreement or AfCFTA	As part of its participation in AfCFTA, the Government of Ghana released the National AfCFTA Policy Framework and Action Plan in 2023 adding “Textiles, Garments and Apparel Manufacturing” to its list of 10 Strategic Anchor Industries[72]. In 2023, the AfCFTA ministerial ruled to prohibit the duty free movement of secondhand clothing between Member States[73].	It is unclear how targeting secondhand clothing for unique duty application will be implemented and enforced under AfCFTA. This is particularly challenged considering the regional free trade agreements on which AfCFTA is modeled, which have aimed to remove barriers to trade and streamline border crossings, particularly for small-scale traders and women[74].	Thus, imposing tariffs on the movement of secondhand clothing between African countries could prove extremely difficult to implement in light of the vision within AfCFTA to have a contiguous economic zone. In the absence of an HS code to distinguish between secondhand garments and remanufacture/ upcycled products made from secondhand goods, upcycled products do not benefit from preferential trade agreements.	

72 American Chamber of Commerce in Ghana, National Policy Framework (2022), https://amchamghana.org/storage/2018/03/Nationalpolicyframework.pdf.

73 Alice Kagina, “AfCFTA: African Ministers Adopt Ban on Trade of Second-Hand Clothes,” The New Times, April 12, 2024, https://www.newtimes.co.rw/article/7985/news/africa/afcfta-african-ministers-adopt-ban-on-trade-of-second-hand-clothes.

74 USAID, West Africa Trade Facilitation (Washington, DC: USAID), accessed September 22, 2024, https://www.usaid.gov/west-africa-regional/document/west-africa-trade-facilitation-tfwa.

POLICY/ REGULATION	DESCRIPTION	IMPACT ON TEXTILE TRADE	LIMITATIONS	RECOMMENDATIONS
Environmental Protection Agency Act of 1994	The Environmental Protection Agency Act of 1994, established the Ghanaian EPA under MESTI. The EPA is granted broad authority to "issue environmental permits and pollution abatement notices for controlling the volume, types, constituents and effects of waste discharges, emissions, deposits or other source of pollutants and of substances which are hazardous or potentially dangerous to the quality of the environment or any segment of the environment," and to "to prescribe standards and guidelines relating to the pollution of air, water, land and other forms of environmental pollution [...]"[75]			Incorporate into policies, regulations and customs coding with the reality of non-binary definitions of waste and product within the circular economy.

75 Republic of Ghana. (1994). ENVIRONMENTAL PROTECTION AGENCY ACT, 1994 (ACT 490)

Global Policy Landscape | HS Codes

As a global standard, secondhand clothing enters Ghana under Harmonised Tariff Code 6309, defined by the World Customs Organization as "worn clothing and other worn articles." While new clothing and textiles have four chapters of customs codes (51, 52, 61 and 62) with at least 34 heading codes and dozens of subcodes, adding up to hundreds of combinations of customs codes to differentiate by garment type, fiber type and intended use, there is no distinction within HS 6309 to differentiate between garment types, fiber types or whether secondhand clothing is sorted, unsorted, intended for reuse or intended for upcycling. This also compounds the challenge of distinguishing between post-consumer secondhand used goods and value-added upcycling or remanufactured products, particularly if upcycled goods made from HS6309 do not have the primary source and fiber content information often necessary for trading material globally under new garment and new textile customs codes.

This creates barriers for Ghana-based upcycling designers and remanufactures to capitalise on global interest in sustainable fashion and circular products. Preferential trade agreements both across the continent of Africa and between Global North countries and Ghana generally require documentation of value added in Ghana, yet upcycled products are exported back out of Ghana under the same customs code that the original secondhand garments entered Ghana the value addition or transformation process is difficult, if not impossible to prove from a customs documentation standpoint.[76]

Global Policy Landscape | Globally Accountable Extended Producer Responsibility

Extended Producer Responsibility (EPR) is a policy framework that makes producers (generally defined as the companies or brands bringing new products onto the market place) responsible for the entire lifecycle of their products, including collection, recycling, and disposal after consumer use. Such policies have existed for packaging, plastics and batteries since the early 1990s, originating in Germany. In 2008 France introduced an EPR framework for textiles. In 2023 the Netherlands followed suit and in 2024 the US state of California also introduced a policy. While law, neither of these most recent policies will be operational for several years. The government of the United Kingdom has an exploratory committee on overall circularity in fashion, of which EPR for textiles is considered a key component. In 2025, after years of consultations, The European Union plans to amend its Waste Framework Directive to include a mandate for member states to institute EPR programs for textiles. All of the program proposals would charge companies only for new products brought onto the marketplace and would aim to incentivize through support for infrastructure and operations reuse, repair, upcycling, remanufacturing and recycling. These programs, especially those in major exporting countries, have the potential to mobilize financial and technological resources to move with clothing exported to Ghana and other recipient countries, yet currently no program has made such international transfers. Public consultations with the European Union's Joint Research Centre, indicate that the definition of waste and the point at which waste ceases to be

76 In June 2023, the African Continental Free Trade Area (AfCFTA) adopted protocols preventing the trade of secondhand textiles across the continent: https://allafrica.com/stories/202306050215.html

waste and rather becomes a resource in the circular economy is a critical factor in the regulatory structure of EPR programs. This definition also influences actions proposed by Sweden and France to add certain types of textile waste to the framework of the Basel Convention banning the export of such materials. The policy development process and high-level proposals make clear that existing policy frameworks do not support the nuance and grey area between waste, product and resource in the circular economy.

The Or Foundation has organized seven delegation trips to Europe and the UK for Kantamanto Market-based retailers, upcyclers, women working as kayayei and officials from the Accra Metropolitan Assembly to share their nuanced experiences with lawmakers in the EU Parliament and Commission, and the German, French and UK governments working on EPR. As part of that process The Or Foundation has submitted a policy position paper to relevant regulatory and policy making groups that terms the phrase Globally Accountable Extended Producer Responsibility and that is endorsed by over 10,000 signatories from within Ghana and around the world. The position paper calls for a floor EPR fee of USD 0.50 per garment, for at least 29.5% of that fee to be paid to tier three reuse, repair, upcycling and recycling operators and for at least 10% of the fee to fund environmental remediation in ecosystems impacted by textile waste. The Or Foundation also served on the advisory council responsible for introducing EPR policy in California, creating the possibility that California's nascent program monitors and supports the management of clothing to the final disposition site, including if that site is in Ghana.

5 | Circular Opportunity Identification and Prioritisation

Based on the assessment of existing conditions, barriers and enablers of circularity, this report identifies three overarching strategic avenues to rapidly catalyse Ghana's textile circular economy:

1. **Strengthen and enable existing reuse practices to catalyse circularity.**
2. **Create and grow recycling pathways and domestic textile circularity.**
3. **Bridge formal and informal manufacturing as the foundation for inclusive innovation and cohesive momentum for circularity across the textile sector. .**

Each avenue is explained in further detail throughout this section, with major challenges and key actions to address those challenges presented side by side, along with accompanying rationale for each key action area.

Strengthen and enable existing reuse practices to catalyse circularity

Table 5.1.1 | Overview of the Action Areas to Strengthen and enable existing reuse practices to catalyse circularity

CHALLENGES IDENTIFIED	KEY ACTION AREAS
Dangerous, Uncompetitive and Inefficient Infrastructure for a Circular Economy ◦ Major fire outbreaks due to lack of fire safety design features, such as firelanes and hydrants, have taken lives and have destroyed millions of dollars of circular goods and equipment ◦ Narrow aisle ways necessitate dangerous headcarrying ◦ Low-lying, paved market aisleways, with nearby clogged gutters are prone to flooding ◦ Lack of market registry and cohesion compounds planning and development challenges ◦ Inefficient waste collection systems due to unplanned and lacking infrastructure	**Upfit Kantamanto Market Infrastructure** ◦ Complete a market-wide census ◦ Provide electricity to 100% of the market ◦ Deliver a demonstration site to upgrade Kantamanto infrastructure ◦ Establish a community-led cooperative to collect and dispose of waste directly from the market

<table>
<tr><th>CHALLENGES IDENTIFIED</th><th>KEY ACTION AREAS</th></tr>
<tr><td rowspan="2">Lack of Coordinated Circular Training and Capacity Building
23% of retailers lack value-addition strategies to extend the lifespan of low-value items
Women migrating to Accra from rural areas lack other alternative skills, thus resorting to head carrying
Language and Regional Barriers
Lack of machinery due to low technical development capacity.</td><td>Deliver training to stakeholders within the secondhand clothing value chain in Ghana and digitize training modules for nationwide dissemination.
Deliver quality control, design and overall skills training programmes for retailers, tailors and upcyclers
Deliver job training to take 20 women out of dangerous headcarrying on a quarterly basis in order to bolster alternative economic pathways
Offer circular machinery fabrication training to scale technology through replication and reduce costs related to technological barriers to entry.</td></tr>
<tr><td>Policy Advocacy
Drive a nationwide campaign to develop standards for headcarrying and the elimination of dangerous headcarrying in commercial contexts</td></tr>
<tr><td>Low Economic Value for Goods
Retailers report a median approximate losses of GHS 105 per bale opened
Declining market demand for secondhand goods and increased competition of imported, low cost new items.
Fragmented sector limits negotiating power</td><td>Policy Advocacy
Advocate for Globally Accountable Extended Producer Responsibility transfers from secondhand clothing exporting countries to secondhand clothing importing countries in order to support end-of-life management of textiles at the final disposition point, to fund upcycling initiatives, and to bolster overall circular infrastructure.
Support stakeholders from the secondhand trade to embark on delegation trips to experience the other side of the value chain and engage with international stakeholders to improve clothing, collection, sorting and design practices, ultimately creating better material for the secondhand trade</td></tr>
</table>

CHALLENGES IDENTIFIED	KEY ACTION AREAS
Low Economic Value for Goods ◦ Retailers report a median approximate losses of GHS 105 per bale opened ◦ Declining market demand for secondhand goods and increased competition of imported, low cost new items. ◦ Fragmented sector limits negotiating power	**Customer Engagement and Market Promotion** ◦ Apply advertisement, marketing, merchandising and customer engagement strategies to increase awareness and disability of circular products, including reuse and remanufacturing. **Support Cohesion through Cooperatives and Associations Across Circular Economy Actors** ◦ Provide training for cooperative management and ◦ Support cooperative and association registration ◦ Facilitate regular cooperative and association meetings
Underrepresentation Institutionally of Non-Linear Business Models	**Policy Advocacy** ◦ Advocate for policy frameworks at the ministerial and municipal level to strengthen support for alternative business models more conducive to circularity, such as social enterprises, where corporate boards are legally bound to social and environmental impact targets as much as fiduciary responsibility.

Opportunity Justification | Upfit Kantamanto Market Infrastructure

Kantamanto Market is the largest hub for circular textile activity in Ghana, but its infrastructure is dangerous and not conducive to competitive commercial activity. With the many thousands of reuse practitioners, upcyclers and remanufacturers based out of the market, there is potential for the market to serve as a flagship for circularity in Ghana, regionally and even on a global scale. Collecting and processing waste materials with economies of scale is also feasible given that so much activity, with millions of garments circulating every week, is concentrated across 18 acres dedicated almost entirely to the reuse of clothing, footwear and other textiles such as curtains. Be it collecting and processing seamstress offcuts, or whole garments discarded with little to no value, the concentration of activity in Kantamanto Market provides for tons of material on a daily basis at one single location.

Yet access into and out of the market is gravely limited by congested roadways that leave little room for large trucks. Parking trailers with shipping containers outside of importers' stalls adjacent to the market can lead to gridlock for an entire day in certain areas. And most critically transporting goods through the market cannot be done at scale by any method other than dangerous headcarrying due to narrow and uneven aisleways that make moving carts impossible. What's more, there is no storage area for carts. Nor is there secured storage in the majority of retailers and upcyclers stalls, meaning that retailers and upcyclers carry additional expenses of storage costs and moving goods back and forth between their stalls. And young women and men working as kayayei carry additional weight on their heads.

With significant flood risk, heat, dust, fire and underprovisioned sanitary facilities, the market is not competitive with new malls built through Accra. The customer experience can be overwhelming and frustrating. The maze of the market, with no lane markers or way to navigate to vendors of specific garment types is seen by some customers as an adventure and by others as a challenge and waste of time that they would rather avoid. In a competitive landscape where customers can order clothes online from the comfort of their home, the market has seen a drop in business. To remain relevant and continue to offer circular services, Kantamanto Infrastructure must be upfit. Upfitting market infrastructure also provides a pathway to introduce into the market on-site health services, such as a community health post, in order to address the need identified by 98% of market members surveyed.

Emerging from the New Years' Fire, with the support of The Or Foundation market section leaders have formed a new, market-wide association for the first time and have signed an agreement to work together on fire safety and the elimination of dangerous headcarrying. Immediately after the fire market members requested support to rebuild in the same footprint and with the same materials as before in order to resume business while planning for longer range infrastructural improvements. The Or Foundation funded the rebuilding materials with the purchase of over GHS 3 million of lumber and other support. Additionally, to mitigate immediate against fire safety concerns stemming from sub-standard electrical wiring, which the Ghana National Fire Service indicated was among the likely causes of the New Year's Fire, The Or Foundation organized and funded the electrification of every market rebuilt market stall with a plan approved by the Electricity Company of Ghana, Ghana National Fire Service and the Accra Metropolitan Assembly at a cost of around USD 1 million. The Or Foundation also worked across market sections to install over 900 fire extinguishers and create a market wide security and first response service, launching in August of 2025. These actions represent the first-of-their-kind, market wide infrastructure projects and lay the foundation for more comprehensive planning efforts. These efforts have also built institutional bridges between government agencies and market members that are necessary to advance a larger Market-wide upfit.

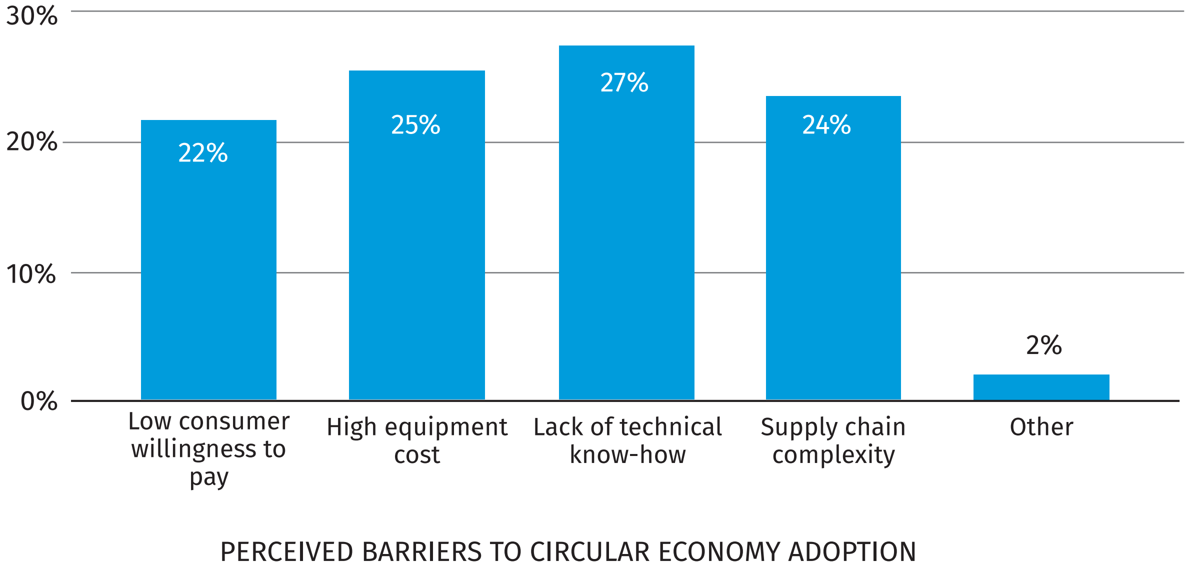
In tandem with the direct actions in the market, The Or Foundation has used land loaned by the Accra Metropolitan Assembly to fabricate a demonstration site of 80 demonstration stalls built with upcycled containers that show a tangible example of a possible market upfit design that is relatively quick to implement. This demonstration site will not house actual commercial activity, rather will be used for community sensitization around a comprehensive market upfit project, a necessary step in the planning process to implement a full scale project. The first step of a broad market upfit may be the installation of fire lanes and displacement stalls in two story stacked containers that will impact around 5% of the entire market, for which The Or Foundation will be able to grant catalytic support should the first phase of the project move forward by the first quarter of 2026. The Ghana National Fire Service has approved the fire lane installation plan, and the current demonstration site being fabricated on land controlled by the AMA is designed to show how the firelane displacement stalls would offer install storage, wide aisleways for material circulation without headcarrying, and the possibility of solar electricity. The full market upfit covering the remaining 95% of the market is estimated to cost upwards of USD 70 million, for which funds must be raised through multiple sources, including Globally Accountable Extended Producer Responsibility and development partner support.

Opportunity Justification | Deliver training to stakeholders within the secondhand clothing value chain in Ghana and digitize training modules for nationwide dissemination.

Upcyclers and secondhand retailers competing on price with new first hand low value fast fashion garments is only extending the linear economy. While circular practices are deployed in an exemplar fashion via reuse, repair and remanufacturing, with the average retailer losing money on bales and financing their operations described as a gambling job with debt, the current state of the secondhand trade is not sustainable neither economically nor environmentally because it sits at the end of a linear economy. Through training to shift business patterns toward low volumes and high value, coupled with cooperative development and shared resource planning, a true circular economy can take shape and drive inclusive economic benefit throughout Kantamanto Market and Ghana more broadly.

Stakeholder engagements outside of Accra point to the need to deploy stronger waste management practices for offcuts, and to develop zero waste patterning and manufacturing processes in line with low volume, high value circular business models. In figure 5.1 stakeholder surveyed report that the lack of technical know-how is the largest barrier to circular economy adoption. Despite the clear interest and need, the challenges of deploying training modules on circular practices across thousands of small businesses throughout the country, where many different languages are spoken and where infrastructure and available resources vary drastically, cannot be overlooked.

Figure 5.1.1 | Overview of the Perceived Barriers to Circular Economy Adoption in Ghana



To meet the stakeholder interest in participating in repair, alteration and upcycling services and workshops, the strategy put forward in this report is that the processes deployed for off-cuts and discarded cotton garments passing through the global secondhand trade centred in Accra's Kantamanto Market – once key milestones are achieved – can be disseminated throughout the country, including across the new garmenting sector, through digital curriculum and regional workshops to share best practices and case studies with an eye toward applicability in different contexts and settings. The digital first curriculum dissemination strategy allows for key lessons to be translated by language experts who may not be subject matter experts, as finding both may in some cases be impossible, and for stakeholders to have take-home content to learn from at their own pace. For a relatively low cost of content delivery, the strategy seeds ideas and best practices to a diverse audience and then follows up to nurture those seeds with the most interested stakeholder in workshop style sprints in strategic locations.

The Or Foundation has developed curriculum for in-person delivery that has reached over 100 Kantamanto Market based participants, and through its position as Textiles Value Chain Lead is actively digitizing the curriculum as of August, 2025 based on the core introductory modules listed in Table 5.2.

The **Or Foundation** has developed **curriculum** for in-person delivery that has reached over **100 Kantamanto Market** based participants

Table 5.1.2 | Overview of Core Subject Areas as to prioritised within the Textile Value Chain for Circularity

Core Subjects	Topics	Beginners	Semi professionals	Advanced
Sustainability and Circularity 101	Basics of Upcycling and Recycling Introduction to Circular Economy Models	Basic sewing skills	Introduction to Upcycling	Advance upcycling and finishing
Textile Science and Technology 101	Fabric Knowledge: Natural vs. Synthetic	Introduction to Upcycling	Advance upcycling and finishing	Identifying market points with upcycling
Design and Production 101	Intro to Pattern Making Production Planning (Kaizen)	Advance upcycling and finishing	Identifying market points with upcycling	Quality assurance Production and quality control

Additional training modules, particularly around business operations have also emerged through The Or Foundations Mabilgu Training Program for women formerly working as kayayei headcarrying secondhand clothing in Kantamanto Market. So far the program has supported 299 women to transition out of dangerous headcarrying through skills training in industries such as solar installation, photography, IT and textile recycling at The Or Foundation's Material Technology and Transformation Lab.

The program also offers scholarships for qualified young women to return to formal education and medical support for all program participants to begin the long physical and mental healing process after working in dangerous and often abusive conditions headcarrying in Accra. This program is core to the strategy presented in this report because when dangerous headcarrying is eliminated through infrastructural improvements, community engagement and policy initiatives, the women currently working as kayayei will need other economic pathways. The program aims to provide those pathways and create peer mentors who can help open doors to new opportunities for other young women who the program cannot yet reach.

Opportunity Justification | Customer Engagement, Market Promotion and Cohesion

Linear products are marketed nearly every time a potential customer turns on a television or opens an app on a smartphone. Circular products need the same support and in the nascent stage they need collaboration to share resources and platforms in order to reach as many potential customers as possible and to collectively negotiate for material prices, such as purchasing bales or equipment. There are numerous fashion promotion pathways through Ghana. Such stakeholders can each prioritize circular initiatives. Many already have. The largest of which is the Obroni Wawu October festival organized by The Or Foundation to promote upcycling and reuse based business in Kantamanto Market. Founded in 2022 the program attracted over 2500 attendees, customers and participants for the culminating event of the 2024 edition and aims to bring more people together for the 2025 edition a marketing budget and a targeted social media engagement strategy to ensure that culturally upcycling and reuse are fashionable topics in Ghana.

Opportunity Justification | Policy Advocacy

As the previously discussed Extended Producer Responsibility policies continue to expand across the global fashion industry, the opportunity to direct financial and technological resources into secondhand clothing markets and the municipalities and communities managing global textile waste passing through those markets is transformative, but there are many demands on limited resources from other actors across the industry. The Or Foundation has developed a metric called the Circular Finance Factor which directionally compares the resources available on a per country basis to manage items of clothing. Applying this framework Ghana is a prime candidate to receive EPR funds should advocacy efforts prove successful in ensuring such funds are indeed globally accountable, moving a portion of the fee paid by the original garment producer (brand or company placing the product on the market for the first time) to an entity or group of entities operating to manage textile waste and cleanup environmental damage caused by textile waste in the countries where the garments is shipped as a secondhand item.

EPR Polices, through the modulation of EPR fees based on the cost of waste management of specific fibertypes and other durability and design standards, may also steer manufacturers to produce higher value garments intended to last for longer than a typical fast fashion item that retailers in Kantamanto Market report does not hold value or form as a garment because it was never designed to. Although EPR becoming globally accountable is largely determined by policymakers and corporate leaders outside of Ghana, Ghanaian stakeholders have a number of roles to play to ensure momentum carries forward. The Government of Ghana must align policy frameworks to support initiatives funded through Extended Producer Responsibility programs, and stakeholders must present a unified voice to breakthrough at the international policy level with clear direction. The Or Foundation has amplified those voices by organizing and funding a series of delegation trips for Kantamanto Market members as well as municipal leaders to meet with European and British policy makers and to speak at major forums on climate change and the future of fashion. This work must continue, as policy as made by those who show up. Development partners can support such delegations through visa access programs.

Within Ghana the crisis of dangerous headcarrying cannot be solved without policy and regulation. Headcarrying is a deeply engrained cultural practice. Young women must be able to know that the law is on their side if they refuse to carry a load because it is too heavy or if they are not paid the agreed amount, and other citizens must support them in standing their ground so that no one is carrying loads that are dangerous or paid inhumanely for their work. Such policy development and such cultural awareness requires developing a body of research on the causes, conditions and effects of dangerous headcarrying and supporting advocates who can speak to the lived experiences that the statistical research indicates. Through The Or Foundation's chiropractic research conducted between 2021 and 2022 and the Mabilgu Training Program, both of these components are developed. Other tools such as a feature length film and a detailed policy position paper are also necessary to support a holistic campaign around ending dangerous headcarrying. The Or Foundation has created such a film and is developing a position paper, both scheduled to launch in Q4 of 2025.

A circular future will look different than the linear past. When there is no bottom or top of a supply chain, business may be decentralized, may share resources more openly or may carry metrics of social and environmental health as the bottom line into the boardroom and shareholders meetings. Looking to legal frameworks such as B-Corps and other initiatives where legal registrations with government have opened the door to a shift to business as usual, this report identifies an opportunity to align business registration and reporting practices with circular business models, which also lends to greater inclusion of the informal sector and bridges built between informal and formal sector manufacturing practices.

Create recycling pathways and domestic circularity

INEFFICIENCIES/ CHALLENGES IDENTIFIED	KEY PRIORITY AREAS
Up to 42% of garments in bales opened for reuse at Kantamanto Market are regarded by secondhand retailers as waste ◦ The most dominant single material in the waste stream is cotton ◦ Blended fibers make up nearly half of all material regarded as waste	**Drive Product Development and Commercialization of Recycling and Waste Transformation Pathways** ◦ Commercialise fibreboards ◦ Develop Shredder-as-a-Service ◦ Commercialise T-Shirt Yan ◦ Explore business models of Product-as-Disassembly ◦ Trial Fibre-to-Fibre Pilots
Textile waste is persistent in the local environmental ◦ Waste hotspots have emerged in the surrounding communities of Kantamanto, including Old Fadama, Korle Lagoon and Jamestown Beach	**Remediate local ecosystems and remove textile waste that cannot be recirculated** ◦ Establish a community-led cooperative to collect and dispose of waste directly from the market ◦ Engage in beach cleanups to remove 30 tonnes of textile waste on a weekly basis ◦ Support community-based bio-redediation techniques to restore ecosystem services and improve overall health ◦ Promote biodigestion and other waste management pathways for unknown and blended fibers
Limited collection capacity for domestic textile waste ◦ Textiles offcuts and discarded garments at the household level add to waste management challenges	**Pilot household waste segregation and collection for textiles** ◦ Engage households in targeted neighborhoods to educate on collection needs ◦ Develop collection logistics to integrate with sorting capacity based at The Or Foundation sorting centre adjacent to Kantamanto Market.

Opportunity Justification |Drive Product Development and Commercialization of Recycling and Waste Transformation Pathways

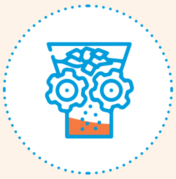
The Or Foundation began research and development activities to transform textile waste into new products through methods accessible within the Kantamanto Market economy prior to COVID-19 in 2020. After five years experimenting with product designs and building processes to manufacture recycled products, including the purchase of waste from retailers to offset lost income due to low value items and the installation of semi-automated fiber sorting technology. The Or Foundation has the facilities and product formula to carry forward commercially viable businesses turning unwanted clothing into objects made from fiberboards, all with equipment engineered and made in Ghana. This has many benefits among those, local ownership of production machinery, added value products for domestic and export markets that can generate employment, and a positive environmental impact through diverting waste and reducing raw resources consumption compared to products made of virgin materials, such as plywood, which fiberboard can replace in certain use cases.

The work thus far has created 16 independent jobs outside of The Or Foundation's internal team dedicated to the Material Technology and Transformation Lab. And groundwork is laid to spin off the material collection and sorting operation as an independent cooperative. The missing ingredient is revenue through sales.

If circularity is exclusively focused on product innovation and not on marketing the products then the circular businesses will fail. Word of mouth is not a viable marketing strategy. For the circular initiatives and recycling pathways to be self-sustaining as income generating businesses, investment and coordinated strategy must be applied to bring products to new markets and drive sales.

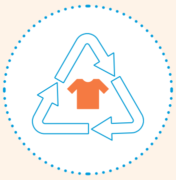
Fibreboard and T-Shirt Yarn Commercialisation | With cotton as the most abundant material within the wastestream, The Or Foundation has developed two waste transformation pathways applicable in Ghana: Cassboard and Tarn. Cassboard is a fibreboard material produced using discarded cotton items and proprietary blend of locally produced cassava glue..[77] Fibreboard material has many commercial applications including, but not limited to, furniture, clothing hangers, construction material, in addition to favourable acoustic properties for acoustic panels and speakers. Tarn is t-shirt yarn, where-by cotton-rich, albeit poor quality items, are stripped into yarn threads, to be upcycled into new products including bags and water bottle holders. The Tarn itself is a product as are items made with Tarn.

77 Frequent purchase of local cassava glue has created positive spillover effects allowing the business owner to employ an additional 5 persons.



Shredder-as-a-Service | Stakeholder consultations indicate that market demand for both shredded textile material and shredding textile material. Recognising the opportunity for product-as-a-service, The Or Foundation has developed a locally built textile, industrial shredder with various iterations able to run on different power supplies for diverse operating contexts. The next step is developing the business model to distribute and operate shredders as a waste management pathway for low value garments and textile offcuts while offering an economic opportunity for local machinery ownership.

Disassembly-as-a-Service | As upcycling trends continue to grow on a global scale and in Ghana, disassembling garments is a critical business opportunity to provide the raw material for upcycling and remanufacturing in a value added form, for example, 1,000 shirt collars from secondhand garments ready to be affixed to 1,000 shirt bodies and 2,000 shirt sleeves. This business model supports remanufacturing at the patternable level of quality and replication at scale, while also providing a pathway for blended materials and synthetics that may not have other clear recycling pathways, for instance, a rainjacket taken apart safely can become a waterproof bag.



Fibre-to-Fibre Pilots | Considering the potential to offset imported raw textile with recycled materials, The Or Foundation is currently conducting fibre-to-fibre pilots to explore possibilities for textile recycling in Ghana with existing recycling operations in Europe in order to build the business case for investment in industrial scale machinery based on material output, which can vary drastically due to fiber length. A significant hurdle for efficient operation of industrial machinery is consistent electricity. To meet such electrical demand and align with immediate industrial offtakers, the strongest opportunity for fiber-to-fiber processing, should a business case exist for the installation of machinery, is at the Akosombo Industrial Company Limited (Akosombo Textiles) hydro-powered facility.

Opportunity Justification | Remediate local ecosystems and remove textile waste that cannot be recirculated

Kanta Keeper Waste Collection Cooperative | IIn 2024, The Or Foundation working in collaboration with the Accra Metropolitan Assembly established a team of market members responsible for waste collection within Kantamanto. Termed the Kanta Keepers, the 36 member team works with retailers and upcyclers to segregate and collect textile waste, laying the foundation for further material processing with a dedicated waste stream as a resource. The collected waste is then taken via truck either to a sanctioned dumpsite operated under a license from the city authority or to The or Foundation's sorting and recycling center adjacent to Kantamanto Market. The Or Foundation is working with the Ghana Department of Cooperatives and Kanta Keepers team members to organize the team as a registered cooperative, a step to bridging the formal and informal divide.

Tide Turners Beach Cleanup | Responding to the waste hotspot identified at Jamestown Fishing Harbour, since 2021, The Or Foundation has established the Tide Turners Cleanup Team, to perform weekly manual beach cleanups. While the paid team currently operates as part of The Or Foundation, cleanups regularly attract over 50 community volunteers. The team removes over 30 tonnes per week from the beach. The effort can be constrained by a shortage of waste trucks that the Accra Metropolitan Assembly is able to provide. The Or Foundation is purchasing a dedicated truck by the end of 2025, and similarly to the Kanta Keepers working to turn the Tide Turners team into an independent community-based cooperative, a process that requires business training and capacity building alongside the endurance event of digging textile tentacles free from the beach, carrying them off the beach and loading a waste truck.

5.1.3 | Bridge Formal and Informal manufacturing

Table 5.3.1 | Overview of the Action Areas to Bridge Formal and Informal manufacturing

INEFFICIENCIES/ CHALLENGES IDENTIFIED	KEY PRIORITY AREAS
One HS code exists for second hand textiles (HS 6309) • Value-added up-cycled goods cannot be distinguished from second hand goods, and therefore cannot benefit from preferential trade agreements	**Policy Advocacy** • Develop a proposal for a new HS code to distinguish upcycled, value-added goods from secondhand clothing

INEFFICIENCIES/ CHALLENGES IDENTIFIED	KEY PRIORITY AREAS
Gender Disparities ◦ Despite the dominance of female traders, women are found to be operating at a net loss compared to male counterparts.	**Community Empowerment** ◦ Establish Kantamanto Women's Association to become self-sufficient by June 2026
Lack of Investment in Informal Economies ◦ Manufacturing across microenterprises both in Kantamanto Market and in tailoring operations around the country, receive minimal support.	**Community Empowerment** ◦ Ensure community representation throughout planning, budgeting and showcasing.

Opportunity Justification | Policy Advocacy

To remove barriers preventing Ghana-based upcycling and remanufacturing designers from accessing international markets, The Or Foundation is developing work with various government agencies and within Ghana and internationally to propose new HS codes and customs regulations as related to upcycled and remanufactured textile-based products. A new HS Code framework will not only allow upcycling and remanufacturing designers to export goods and trade on the international market, potentially benefit from preferential trade agreements, but also support more comprehensive data capture and consolidated logistics practices.

Opportunity Justification | Community Empowerment

Women comprise up to 75% of the labour force within Kantamanto market, yet have limited representation within market leadership to advocate for themselves. To support female representation and inclusive decision-making, The Or Foundation has supported the new Kantamanto's Women Association, established by nine women across various roles in the market including one female leader, retailers and upcyclers, to advocate for greater economic opportunities and social securities for women working within the market.

As noted in MEST's Circular Economy Action Plan and Roadmap (p. 50), "Key opportunities lay in strengthening the informal sector that already performs domestic reuse and recycling activities through financial support as well as stronger representation in government decision-making and planning, that in turn will help developing best practices. Furthermore, methods of doing business between the informal and formal sectors have to be strengthened, which promises a win-win."

6 | Action Plan Development

6.1 | Action Plan Phases

6.1.1 | Short Term (0 - 24 months)

Table 6.1.1.1 | Overview of the Short Term (0 - 24 months) Action Areas

ACTION ITEM	OPPORTUNITY IDENTIFIED	STATUS
Complete a market-wide census	Strengthen and enable existing reuse practices to catalyse circularity	In Progress as of August, 2025
Provide electricity to 100% of the market stalls that burned down in the New Year's Fire	Strengthen and enable existing reuse practices to catalyse circularity	On Track for Completion by September 2025
Deliver an 80-stall mock up demonstration site	Strengthen and enable existing reuse practices to catalyse circularity	In Fabrication with a delivery deadline of October, 2025
Establish a community-led cooperative to collect and dispose of waste directly from the market	Strengthen and enable existing reuse practices to catalyse circularity	Kanta Keepers established in 2024 Project on track and ongoing
Develop training programmes for retailers, tailors and upcyclers	Strengthen and enable existing reuse practices to catalyse circularity	Project on track and ongoing
Develop training pathways to take 20 women out of dangerous head carrying on a quarterly basis	Strengthen and enable existing reuse practices to catalyse circularity	Project on track and ongoing
Drive a local campaign to develop standards for safe limits of head carrying	Strengthen and enable existing reuse practices to catalyse circularity	Principal photography complete. Currently editing.
Commercialise fibreboards for speakers, sound insulation, furniture and hangers	Create recycling pathways and domestic circularity	In progress
Develop Shredder-as-a-Service	Create recycling pathways and domestic circularity	In development Shredder built as of May 2025
Commercialise T-Shirt Yarn	Create recycling pathways and domestic circularity	Project on track and ongoing
Establish a community-led cooperative to collect and dispose of waste directly from the market	Create recycling pathways and domestic circularity	Kanta Keepers established in 2024 Project on track and ongoing

ACTION ITEM	OPPORTUNITY IDENTIFIED	STATUS
Engage in beach cleanups to remove 30 tonnes of textile waste on a weekly basis	Create recycling pathways and domestic circularity	Tide Turners currently exceeding 30 tonnes per week
Engage in R&D for decomposition and bioremediation remediate the local ecosystem	Create recycling pathways and domestic circularity	Project on track and ongoing
Develop business case for Fibre-to-Fibre	Create recycling pathways and domestic circularity	Awaiting results from pilot trials with delays
Pilot household secondhand clothing collection	Create recycling pathways and domestic circularity	Project in development with community partner
Develop a proposal for a new HS code to distinguish upcycled, value-added goods from secondhand clothing	Bridge Formal and Informal manufacturing	In progress

6.1.2 | Medium Term (3 - 5 Years)

Table 6.1.2.1 | Overview of the Medium Term (3 - 5 Years)

ACTION ITEM	OPPORTUNITY IDENTIFIED	STATUS
Manage fund distribution through regional Producer Responsibility Organization	Strengthen and enable existing reuse practices to catalyse circularity	In Development, though reliant on regulatory frameworks
Strengthen collaboration across African circular economies.	Strengthen and enable existing reuse practices to catalyse circularity	Work ongoing with delegation trips between Ghana, Uganda, Kenya and Nigeria
Enforce regulatory framework eliminating dangerous headcarrying.	Strengthen and enable existing reuse practices to catalyse circularity	Campaign to bring about regulation currently in development
Explore business models of Product-as-Disassembly	Create recycling pathways and domestic circularity	Not Started
Install fibre-to-fiber recycling technology	Create recycling pathways and domestic circularity	Contingent on business cases currently awaiting trial completion with delays

ACTION ITEM	OPPORTUNITY IDENTIFIED	STATUS
New HS code introduced to distinguish upcycled, value-added goods from secondhand clothing	Bridge Formal and Informal manufacturing	Work ongoing

6.1.3 | Longer Term (5+ Years)

Table 6.1.2.1 | Overview of the Longer Term (5+ Years)

ACTION ITEM	OPPORTUNITY IDENTIFIED	STATUS
Commercialise Fibreboard material for certified Construction use.	Create recycling pathways and domestic circularity	Not Started
Full upfit of Kantamanto market infrastructure	Strengthen and enable existing reuse practices to catalyse circularity	Subject to Success of Market Demonstration site and funding
Commercialise Fibre-to-Fibre product output	Create recycling pathways and domestic circularity	Subject to Success of Fibre-toFibre Pilots and technology installation

6.2 | Risk Management

Table 6.2.1 | Overview of the Risks Identified to the Implementation Ghana's Circular Textiles Value Chain

RISK	RISK DESCRIPTION	RISK LEVEL	RISK MITIGATION
Political and Regulatory Risks			
Long Policy Development Lead Times	Policy development cycles can take anywhere between 2 and 5 years from proposal to eventual adoption and implementation. This does not account for delays or setbacks that can occur particularly around political elections.	High	In the interim for policy development, The Or Foundation through its policy advocacy initiatives will continue to engage brands to engage in voluntary EPR agreements, to support communities most burdened and impacted by the linear fashion economy.
Internal Operational Risks			
Internal Capacity Constraints	The Or Foundation's team works across a number of programmes. Externally initiated activities or unplanned events can exceed organizational capacity	High	The Or Foundation continues to expand its team to ensure sufficient human resources and expertise are available to execute on project aims.

RISK	RISK DESCRIPTION	RISK LEVEL	RISK MITIGATION
External Stakeholder Risks			
Community Crises	As an organisation working in service and solidarity to Kantamanto market, The Or Foundation must balance the GCEC objectives with the needs of the community. Already, the market fire that occurred on January 2nd, 2025 has impacted The Or Foundation's project timelines owing to the need to respond to community crises. Other crises that can hinder project process include market disturbances stemming from stakeholder tensions.	High	The installation of fire extinguishers alongside the vision for the market upfit will help to reduce hazard risks such as widespread fires. Furthermore, The Or Foundation continues to expand its team to ensure more personnel are available to focus and respond to the community in crises. Community resilience is strengthened through market associations, the market census and cooperatives.
Stakeholder Engagement and Sociocultural Norms	The reliance on external stakeholders to fulfil The Or Foundation's objectives poses risks by way of: - Time required to identify relevant stakeholders - Gaining stakeholder buy-in/ trust where some stake holders may be misaligned to objectives - Delays in stakeholder responses and execution of responsibilities within the project.	Normal	The Or Foundation already has a strong network of stakeholders ranging across government and Kantamanto market, academia and civil society, at both the local and international scale. The Or Foundation's team speaks multiple local languages and engages in regular events with community members to build trust.
Supply Chain	Reliance on external vendors can disrupt projects if suppliers are delayed.	Normal	The Or Foundation maintains regular communication with suppliers and includes delivery terms in purchase orders.

7.1 | Stakeholder Roles and Responsibilities

STAKEHOLDER	RESPONSIBILITIES	PROJECT ROLES
The Or Foundation	The Or Foundation is an Accra-based NGO working at the intersection of education, fashion innovation and environmental justice. The mission of The Or Foundation is to catalyse a justice-led circular economy for textiles and fashion through community ecological care. Since its founding in 2012, The Or Foundation has mobilized over ten million dollars to support circular textile initiatives in Ghana.	Project Facilitator
Secondhand Retailers	Secondhand retailers purchase globally sourced bales of secondhand clothing from importers or middlemen to open and then merchandise the individual garments inside. Most retailers specialise in a bale category by clothing type (e.g. men's suits, childrenswear).	Business development and skill training participants Kantamanto Women's Association KOBA
Ghanaian Tailors, Seamstresses	Tailors and Seamstress are key actors in Ghana's fashion ecosystem, responsible for garment production, repair, and alterations. They embody circular practices such as reuse, mending, and customization. Whether in Accra, Kumas, Ho or Tamale, many operate within markets and small shops, contributing to local economies and textile recovery. Their technical expertise and customer networks make them vital partners in advancing repair culture and upcycling initiatives within a circular economy framework.	Business development and skill training participants Kantamanto Women's Association
Upcyclers	Upcyclers may be tailors and seamstresses focused on remaking garments, or overdyers and screenprinters covering up stains. The skills of upcyclers are as diverse as the designs they make. Roughly three thousand upcyclers work in Kantamanto Market.	Business development and skill training participants Kantamanto Women's Association

STAKEHOLDER	RESPONSIBILITIES	PROJECT ROLES
Kayayei (Headporters)	The word kayayei means "she who carries the burden" and in the context of the secondhand clothing trade in Ghana refers to the women working in the market as headporters, transporting clothing bales weighing 55kg throughout Kantamanto's 18 acres.	Business development and skill training participants Kantamanto Women's Association
Kantamanto Obroniwawu Businesses Association (KOBA)	Newly formed after the New Years Fire, KOBA is the first, market-wide association bringing 13 different market sections, each with different land leases and landlords together to coordinate market wide operations and planning.	Community Convening, Engagement and Planning
Accra Metropolitan Assembly (AMA)	Business permitting and market stall allotment falls squarely within the AMA's mandate. In addition the AMA is in charge of all waste collection within its jurisdiction, making it a critical institution in transforming waste back into resources as part of the circular economy. The AMA has championed circular solutions for textile waste on a policy and material level and is socializing source separation of waste at the household level among residents, which is a critical step for downstream circular potential. The AMA is also working closely with The Or Foundation to support planning and development efforts for the Kantamanto Market Upfit. The AMA runs the Youth Climate Action Fund in Accra.	Beach Clean Ups Kanta Keepers Market Upfit
Ghana National Fire Service (GNFS)	The Ghana National Fire Service (GNFS) is a government agency responsible for preventing and managing fires, including public safety campaigns during fire outbreaks.	Market Upfit Fire Safety Training

STAKEHOLDER	RESPONSIBILITIES	PROJECT ROLES
Jamestown Community Residents	Predominantly a Ga community, the Jamestown includes a significant fishing community along Accra’s coastline.	Beach Clean Ups
Kumasi Metropolitan Assembly (KMA)	Just like AMA, KMA is central to the administration of the Kejetia, Sofoline and other markets within the Greater Kumasi Metropolis. In addition to their mandate to oversee waste management at the local level, business operating permits, market supervision among others, KMA particularly is dedicated to circular economy and has established a circular economy center called Kanko Hub for this purpose. The Or Foundation organised a CE Mapping stakeholder meeting with the KMA team in February 2025 at the Kanko Hub.	Kanko Hub Business development and skill training participants
Tamale Metropolitan Assembly	Apart from their mandate which is the same as the two metropolises outlined above, TMA is also a primary advocate for circularity, dealing with plastics, metal, etc collection and segregation, as long as there is proven economic value to be gained. With all the MMDAs as potential partners, we can be certain of smooth scaling and access to important resources and regulatory guidance to navigate the business terrain.	Business development and skill training participants
TVETs / Academic Institutions	TVET Institutions such as Kumasi Technical University (KsTU), AAMUSTAD, AFDOM, etc. are vital to developing the skills needed for Ghana’s circular economy transition. They offer training in garment production, textile design, recycling technologies, and entrepreneurship which are core areas for circular textile innovation.	Curriculum Development Support Curriculum Adoption Lecturers capacity building

STAKEHOLDER	RESPONSIBILITIES	PROJECT ROLES
CTVET	Council for Technical and Vocational Education and Training (CTVET) is the national body responsible for coordinating, regulating, and promoting TVET across Ghana. As the authority overseeing curriculum development, certification, and competency-based training, CTVET plays a central role in aligning vocational skills with circular economy needs. Through partnerships with institutions and industry, CTVET can drive the integration of circularity into training programs; especially in the textile sector and fashion development. Its influence makes it a strategic partner for scaling workforce readiness for Ghana's circular economy transition.	Curriculum Development Support Curriculum Adoption
Department of Cooperatives	The department of cooperatives regulates and supports cooperative societies across Ghana, including those in waste picking, trading, tailoring, and recycling. In all the regions of Ghana, the department works with informal workers to formalize their groups, providing legal recognition, training, and business development support. As circular economy models increasingly depend on inclusive, community-driven approaches, the department is a key ally in strengthening cooperatives as vehicles for collective ownership, value recovery and sustainable livelihoods.	Business model development support
Smock Weavers	Smock weavers, particularly from Upper West, East and Northern Ghana preserve indigenous textile knowledge using handwoven cotton fabrics. Their work represents low-waste, slow fashion practices aligned with circularity. As interest grows in locally sourced, ethical textiles, smock weavers offer an opportunity to blend cultural heritage with sustainable production. Key for value chain localization and regenerative fashion initiatives.	Business development and skill training participants

STAKEHOLDER	RESPONSIBILITIES	PROJECT ROLES
Kente Weavers	Kente weavers are custodians of one of Ghana's most iconic textile traditions, originating from the Volta and Ashanti regions, their artisanal methods emphasize quality, durability, and zero-waste weaving techniques. Kente weavers are well-positioned to lead in high-value circular fashion markets, where traceability and cultural storytelling enhance product appeal. Supporting them strengthens local economies and aligns with circular economy principles of preserving and regenerating craft traditions.	Business development and skill training participants
Media Houses	Media Houses play a critical role in public education, awareness-raising around sustainability, waste, fashion and marketing opportunities. Their platforms which include radio, television, print, and digital can shape narratives, spotlight innovation, and influence consumer behavior. Engaging the media is essential for scaling circular economy campaigns, promoting behavioral change, and amplifying grassroots voices such as waste pickers, upcyclers, and young designers.	Campaign, Awareness, and Marketing Support
Financial Vehicles	Banks, microfinance institutions, and savings and loans companies are essential to enabling access to capital for circular enterprises. In Ghana, many small fashion and waste businesses struggle to scale due to lack of affordable financing. Financial institutions can support circular economy adoption through tailored loan products, green financing schemes, and financial literacy programs; especially for women, youth, and cooperatives operating in the informal sector.	Investment Tools

8 | Conclusions

Circular opportunity mapping illustrates that Ghana's textile sector exhibits models and practices aligned with a circular economy, principally spearheaded by the secondhand textile economy. Nonetheless, the challenges are tremendous. From overcoming severely underfunded infrastructure and strengthening community cohesion, to shifting subsistence business models at the end of the line a linear system and collecting waste from beaches and rural tailor and seamstresses. The core strategy put forward in this report is to build on the informal systems of scale through replication in order to drive toward wide adoption of domestic circular systems.

In partnership with Canada

Ghana Circular Economy Centre

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Republic of Ghana

About Ghana Circular Economy Centre

The Ghana Circular Economy Centre (GCEC) project supports Ghana's transition to a resource-efficient and inclusive circular economy by promoting innovation, strengthening policy and institutional frameworks, and building capacity across key value chains, including plastics, agriculture and agro-processing (cassava, mango, pineapple and tilapia), and textiles.

The project is implemented by the United Nations Industrial Development Organization (UNIDO) in partnership with the Ministry of Environment, Science and Technology (MEST), with funding support from Global Affairs Canada.

The GCEC serves as a national hub for knowledge generation, stakeholder engagement, and the piloting of circular solutions to advance sustainable industrial development, improve resource efficiency, and create decent jobs.

Host Institution

Ho Technical University

Value Chain Leads

KNUST – Kwame Nkrumah University of Science and Technology

University of Cape Coast

The Or Foundation

Cape Coast Technical University

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