



SYNTHETIC

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THE REFASHION LAB

CAPE TOWN DISCARD STUDIES
IN FASHION AND TEXTILES

PREFACE

... with more excess also comes more waste (Atmos, 2024)

The Refashion Lab report addresses some of the realities, opportunities and challenges of the excesses of fashion & textiles – and resultant waste flows – that emerged from a micro-study in Cape Town, South Africa between 2021 and 2023. The report covers a range of reflections including costs, skills, obstacles, limitations, partnerships and local capacities in relation to pre-and post-consumer fashion & textile waste that currently ends up in landfills or as litter in rivers, drains and the environment.

The Refashion Lab considers how fashion & textile waste can be re-imagined as a regenerative resource, as generator for new green jobs, and as a potential pathway to forms of social, environmental and economic justice. Understanding this waste allows us to respond to the fashion & textile industry's need for advice on improved design practices and need to find and apply solutions.

Prepared by Dr Erica de Greef, co-founder of AFRI and Jackie May, founder of Twyg, 2025



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Jackie May is the founder and editor-in-chief of *Twyg*, an media platform that creates digital content and events to imagine and shift society towards kinder, fairer and nature-friendly futures. She has an MPhil in Sustainable Development from the Centre for Sustainability Transitions, Stellenbosch University, and an MA Philosophy from University of London.

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We acknowledge the Khoi as original carers and custodians of this land and respectfully offer this research to both the ancestors and the future generations of this land.

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Note on sources

The information in this document has been gathered from primary research we conducted as independent researchers along with our teams, and from sources that are believed to be reliable (see reference list). The authors accept no liability whatsoever for any direct or consequential loss arising from the use of this document or its contents.

Note on the term fashion & textiles

We use the coupled-together term fashion & textile/s throughout the report to include fashionable apparel, uniforms, workwear, shoes and other accessories, as well as items made from textiles found in advertising, interior, hospitality and beauty industries, such as banners, shopping totes, sheets, cushions, carpets and curtains, towels, tablecloths and more.

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EXECUTIVE SUMMARY

The Refashion Lab Report follows participatory and desktop research exploring local fashion & textile waste flows, undertaken in the city of Cape Town between July 2021 and August 2023. Five key objectives underpin the research:

1. Contribute to shaping harmonised circular systems in local fashion & textile and related industries;
2. Generate and contribute towards social and environmental healing and justice;
3. Inform industry, and local municipal policies (especially in production and at landfill sites);
4. Investigate new, green jobs and economies (opportunities, definitions, technologies and skill-sets) that are context-relevant; and;
5. Help build a business case for entrepreneurial, upcycling and repair workshops, collaborations, pathways and innovation depots.

Our motivation is to contribute to growing and greening a fairer fashion & textile ecosystem in South Africa, and to developing a local circular economy. As far as possible, we located our research in Cape Town, South Africa, but where appropriate, have referenced international developments and resources. On a practical and immediate level, this report presents the results of our three pilot studies; the potential for the industry when reimagining fashion & textile waste; and, a directory of organisations (big and small) that are currently recycling textile waste. On a different level, the results point to the flaws in the fashion & textile system, a system that contributes to environmental degradation and opens up a way for further discussion on whole systems change.

Fashion & textile waste research has recently intensified with a focus on impacts, actions and new directions from leaders in the field, such as Fashion Takes Action in Canada, the multinational organisation Changing Markets, the Dutch Circular Textile Valley in Netherlands, and the Centre for a Waste Free World and other initiatives in Australia. In the Global South, comprehensive research has been conducted for example by Arisa and Sympany in India, Rewoven and Taking Care of Business in South Africa and The Or Foundation in Ghana. While Green Cape published a brief overview of textile recycling in Cape Town, *Threading the loop: Textile recycling and fibre recovery*, and Trade and Industrial Policy Strategies issued a report in 2022, *Designing climate-compatible industrial strategies for South Africa: the textiles value chain*, there is still a need to further explore and understand: **first**, the broader economic, social and environmental factors related to fashion & textile waste, and **second**, the potential solutions appropriate for South Africa.

The Retail-Clothing Textile Footwear and Leather (R-CTFL) masterplan sets targets to boost employment numbers in South Africa through a combination of growth in retail sales (hitting R250 billion) and to expand local procurement from 44% to 65%. To meet the masterplan's targets, the local fashion industry - if not corrected by adopting more circular interventions - could produce additional pre-consumer waste including end-of-production rolls, damaged goods and off-cuts that are deemed 'waste' and discarded (to landfill), as well as more post-consumer waste. (To date 20.07.25, the R-CTFL masterplan, has not published explicit recommendations or targets on environmental and cultural sustainability, nor on circularity.)

In addition to a chapter summarising existing reports and literature, we analysed the garment labels of over a thousand garments sold locally online (July 2021) and we studied a diverse sample of waste generated by the fashion & textile industries, by the hospitality and beauty industries, and by retailers and consumers.

As two independent researchers – both committed to addressing justice, equality and environmental awareness, and redressing the historical and social imbalances of the colonial legacies of Cape Town (and beyond) – Jackie May, founder of *Twyg* and Dr Erica de Greef, co-founder of the *African Fashion Research Institute*, present this report at the intersection of excess and opportunity.

Our research was initiated by two questions:

- *What is being done about the problem of fashion & textile waste in Cape Town?*
- *What more can we (and you) do about this?*

The Refashion Lab report aims to plant seeds that can help build capacity, implement change, improve lives and clean up nature.

The uncomfortable truth is that waste – created during the making of fashion, during the retail and consumer phase, and at the discarding phase – sits at the heart of fashion. Furthermore, this waste is very complex. It includes factory waste, post-consumer mixed waste, multi-component items such as bags and shoes, blended fibres, and clothes that feature buttons, zips, elastics, linings, or other trims. According to our desktop analysis of clothes sold online by leading local retailers most garments in the fashion system are

made of synthetic fibres such as polyester, lycra, acrylic, etc. and a range of blends one of which is almost always a synthetic fibre, making the potential to recycle clothes very difficult.

The uncomfortable truth is that waste – created during the making of fashion, during the retail and consumer phase, and at the discarding phase – sits at the heart of fashion.

Our key findings show that Cape Town (and South Africa) does not have a waste management plan for fashion & textile, yet there is a nascent circular fashion & textile system developing in Cape Town (and South Africa) that begins to address the end-of life phase of fashion & textiles. Although this study was conducted in Cape Town, we believe it can be useful to most cities across South Africa.

With the redirection of waste from landfill, we found that fashion & textile waste streams can create new types of jobs, some of which require minimal training and equipment. Post-consumer waste that is manually sorted, recycled and upcycled should be cleaned before handling, which will have an impact on the cost and the use of water and energy, but greywater and solar power can create side benefits.

Our research also shows that working with fashion & textile waste can offer opportunities for social enterprises as possible employment or empowerment pathways for vulnerable communities in terms of self-reliance, entrepreneurship and circular micro-businesses.

The Refashion Lab shows that more investment, collaboration and commitment to change across production, policy, consumer and disposal practices is necessary to facilitate the collective shift towards creating a local thriving, future-fit, nature-and-justice centric fashion & textile eco-system.

Our recommendations fall across three broad areas; namely educational, extended producer responsibility (EPR), and employment.

1. Educational focus to inform and inspire:

- Partner with universities to ensure research is / has been conducted to inform decision-and-policymaking;
- Public-facing Refashion Labs and Makers' Spaces to develop new and to support existing business models;
- Twyg content, media campaigns and events, such as *Africa Textile Talks*;
- *AFRI* educational content, panel discussions, research and courseware;
- Partnerships that support awareness and socio-environmental justice in fashion such as *The Or Foundation*, *Taking Care of Business*, *Green Cape*, *Fashion Revolution*, *Rewoven's Future of Fashion programme*, etc.

2. Advocate for Extended Producer Responsibility to include fashion & textile production:

- Create and develop thought leadership about EPR;
- Respond to proposed amendments to the regulations and notices regarding the Extended Producer Responsibility, 2020 of the National Environmental Management: Waste Act, 2008;

- Collaborate with stakeholders including retailers and manufacturers to understand impact of EPR levies and policies;
- Prepare the fashion & textile industry for EPR with regards to improved design and choice of recyclable fabrics.

3. Create employment and new types of jobs that enable greener, more circular fashion & textile systems:

- Launch a collection and sorting depot as a training and business model;
- Work with designers and micro, small and medium businesses to create retail-ready upcycled goods;
- Work with hotels, advertising, film industries, restaurants etc to educate and upskill sorting and diversion managers;
- Work with partners such as *Cape Peninsula University of Technology*, *V&A Waterfront*, *Harambee*, *Streetscapes*, *Taking Care of Business* and other social enterprises to create new sustainable green fashion & textile jobs;
- Identify and pilot new jobs and create learning manuals.

Overall, this report points to the need for large-scale collaboration across diverse people, industries and interests to create multiple big and small opportunities for new, more circular fashion & textile systems and a cleaner environment.

We would like to thank all our participants, contributors, designers and volunteers working collectively to bring about much-needed awareness and change.

Erica de Greef and Jackie May, 2025

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Fashion & textile waste that has been redirected from landfill arrives at Curb Cycle unsorted. Photo: Erica de Greef

INTRODUCTION

The fashion & textile sector in South Africa operates in a global context that is based on a wasteful fashion model contributing to ongoing environmental degradation and climate change while deepening social and economic inequality.

The Refashion Lab research is led by two key questions: **“What is being done about the problem of fashion & textile waste in Cape Town”** and **“What (more) can we do about this?”** The report follows our research into what happens when fashion & textile waste rather than being discarded, is diverted and reused, repaired, resold, renewed or recycled.

In dealing with the many challenges of discarded fashion & textiles, we considered a range of opportunities and possibilities, which raised additional questions: *“Can a circular economy approach create new jobs?”*; *“Can the reduction and/or redirection of fashion & textile waste prevent unnecessary ongoing waste of earth’s resources and limit or even prevent further environmental pollution?”*; and *“Can Cape Town’s creative industries lead in redirecting waste, and contribute to an awareness and uptake of recycled and upcycled goods?”*

Over 36 months*, Twyg and the African Fashion Research Institute conducted online research, stakeholder interviews, critical case studies, and two field research projects based in Cape Town, South Africa.

Context

Our research* includes reporting on this broader context, and on an understanding that in South Africa we need “to correct the enduring legacy of apartheid, colonialism and other legislated injustices and

structural inefficiencies in line with the Constitutional promise and sustainable development principles” (Madonsela, in Moleko, N and Swilling, M. 2022, 4). South African economic activity needs to address unemployment, poverty, inequality and embedded structural economic injustices along racial and gender contours of the past (Madonsela in Moleko, N and Swilling, M. 2022).

Considering that the fashion & textile sector is one of the most environmentally impacting global activities, local research is critical for local solutions. The global fashion & textile sectors currently produce at least 3.4 million tonnes of global greenhouse gas emissions annually, consume between 6–9 billion litres of water and use 6 million tonnes of chemicals (Tedesco and Montacchini 2020, 2). According to *Fashion On Climate* (2020), Dottle and Gu (2022) and *Bloomberg* (2022) fashion is responsible for between 4% and 10% of total global carbon emissions. The industry remains steadfastly linear: billions of pieces of clothing are discarded if unsold, and at the end of their useful lives are sent to landfill or incinerators, or land up in rivers and on beaches in the Global South (McKinsey, 2023: 82).

By understanding the waste fashion & textiles produce, we can better understand the fashion & textile industry and develop solutions to reduce its far-reaching impact.

*(*The studies we report on were conducted over 36 months, our work in textiles & fashion continues.)*

Methodology

The research was developed to inform local frameworks for more circular fashion systems. To meet our objectives, two pilot studies were developed and executed, as well as two supporting desktop research projects in the form of a literature review and an online fibre analysis.

Finally, stakeholder interviews were undertaken in collaboration with various Cape Town-based partners.

The fibre analysis desktop study explored the fibre composition of garments available to purchase during the Autumn/Winter of 2021, with the understanding that many (or some) of these items would be replaced the following winter season as trends dictate new colours, shapes and looks, and these items would enter some kind of waste stream (through donations, secondhand shops, resale spaces, general municipal dustbins, or burning).

The literature review scans the vast amount of innovation and research that is being published and that tracks similar questions to ours, yet these largely are situated in the global north (Canada, Sweden, Italy, the Netherlands, etc.).

There is some important recently published research that investigates textile waste streams, innovations and developments in Ghana, India and Australia that aligns more closely with the South African fashion & textile landscape.

While this gives us an understanding of the global context, the specific (regional) challenges and opportunities in South Africa informs the focus of this report.

The industry stakeholder interviews were key to locating our research questions

and observations within a local fashion ecosystem.

The two in-depth studies of waste composition, sorting and diversion challenges, were informed by practice-led research at a waste depot and an integrated waste and maker space in Retreat and Gardens, Cape Town respectively. These case studies furthermore informed the framing of observations regarding skills, needs and opportunities for future consumer, industrial and entrepreneurial directions towards shaping a more circular, local fashion & textile ecosystem.

In developing our research methods, we considered not only the economic or business-case model, but were guided by questions of social justice and environmental well-being drawing on intersectional frameworks that include issues of cultural sustainability, circularity and a broad-based greening of our local creative economies.

Together these methods were adopted to meet the study's objectives, and implications for policy recommendations, job creation and skills training, and more widely the definitions needed to reframe the fashion & textile system and its waste flows into kinder, better, more sustainable and circular habits and laws. The multiple methods research approach also demonstrates the complexity of the fashion & textile ecosystem, and points to the need (and scope) for further cross-disciplinary, and multi-stakeholder research.

The research involved drawing on our own industry experiences, networks and other, ongoing research projects that can be found on our websites, [Twyg](#) and [African Fashion Research Institute](#).

Objectives and aims

The five key objectives that underpin the research are, to:

- Contribute to shaping context relevant fashion circular systems in local fashion & textile-related industries;
- Generate and contribute towards social and environmental healing and justice;
- Inform industry, and local municipal policies (especially in production and at landfill sites);
- Investigate new, green jobs and economies (opportunities, definitions, technologies and skill-sets) that are context-relevant; and;
- Help build a business case for entrepreneurial workshops, collaborations, pathways and innovation depots.

In addition to these key objectives, by doing desk research and pilot studies, the report aims to:

- Identify and define the problems and related socio-economic contexts;
- Clarify definitions and methodology in the field;
- Map fashion & textile waste flows and recyclers;
- Test the material and economic viability of disassembly and sorting, collection and distribution;
- Identify and develop new and potential jobs;
- Create links between the solutions and key role-players;
- Collate new research centred on fashion & textile waste;
- Offer recommendations;
- Guide decision-makers and policy-makers through Refashion Lab's role as a circular textile hub for industry.

Limitations

We acknowledge that this report is a tiny foray into a much larger framework of industries, stakeholders, creative and economic solutions, researchers and publications. As researchers, we are limited by our positionalities to understand the range of life-worlds this research impacts, as well as by our available time to dedicate to a more in-depth scope that the research clearly demands. Limited funds (to commission additional supporting research, etc.) also impacts our capacity to expand on some of the threads identified but not dealt with in depth.

We consider the research to be the start of the journey. We also believe that the report (as it currently reads) offers a good foundation for further study. The overall intention of this report is to aid and facilitate a transition towards a more just, equal and sustainable society in South Africa which does not hold the same meaning for everyone. The context and lens of this report is South Africa: a post-apartheid, post-colonial country with the highest levels of inequality in the world, with a 33% unemployment rate in the first quarter of 2025 (StatsSA).

To drive a transition to a fairer fashion system, decisions need to be rooted in diverse values and worldviews, including a range of scientific and emotional knowledges. This approach will facilitate climate resilient development and allow locally appropriate, socially acceptable solutions.

The overall intention of this report is to aid and facilitate a transition towards a more just, equal and sustainable society in South Africa.

DEFINITIONS

Circularity: In contrast to a wasteful take-make-waste model, circular fashion designs out waste, keeps existing products and materials in circulation for as long as possible, and regenerates natural systems.

Circular economy: A circular economy is a system designed to minimise resource use, waste, emissions, and energy loss by slowing, closing, and tightening the loops of energy and materials. This approach contrasts with the linear economy, which follows a "take, make, dispose" model of production.

Disassembly: The process of taking a garment apart so that it can be recycled or reused at end-of-life. Design for disassembly means ensuring that a garment can easily be taken apart into its constituent parts at end-of-life in preparation for recycling or reuse.

Doughnut economy: An alternative economic logic that aims to expand on the narrow mainstream economic focus on GDP and economic growth at all costs. The Doughnut Economy principles of practice and rethinking in pursuit of sustainable development are as follows: change the goal, see the big picture, nurture human nature, think in systems, be distributive and share the value created, create to regenerate, and aim to thrive.

Extended producer responsibility (EPR): EPR policies in countries in the Global North are regulatory measures that hold fashion producers accountable for the waste they create when introducing new products into the world. This is typically done by mandating an EPR fee from brands for each garment they create to a waste management organisation.

Green jobs: Jobs within more equitable economies - including circular economies - that contribute to a world that exists in harmony with people and the planet. These jobs are also characterised by living wages and sustainable livelihoods.

Man-made cellulosic fibres: Fibres that made from the dissolved wood pulp or "cellulose" of trees.

Man-made fibres: Fibres that do not exist naturally and require specific processes to create them. Synthetic fibres are man-made fibres.

Natural fibres: Fibres that are derived from naturally occurring sources. Natural fibres can be plant-based (such as hemp, cotton, and linen) or animal-derived (such as wool and mohair).

Pre-production textile waste: Textile waste is generated before the garment reaches the end buyer (consumer). Textile swatches, end-of-roll textiles, deadstock textiles, and reject textiles.

Production textile waste: Also pre-consumer waste, this includes off-cuts from the fashion manufacturing and factories; seconds, or rejects, garments that do not pass quality controls and production samples and end-of-season dead-stock.

Post-consumer textile waste: Textile & fashion waste generated when the end consumer disposes of a fashion product they purchased.

Recycle: The general process of taking a textile that is no longer in use, giving it new life, adding value to “waste”, and recirculating it, instead of opting for disposal. This could be through reuse, upcycling, and textile-to-textile recycling. Textile-to-textile recycling refers to the process of breaking down a garment or piece of cloth into its constituent fibres and then creating a new textile or garment from those fibres.

Remake: To make anew in a different form. An example of this is upcycling.

Repair: The process of mending, fixing, and extending the lifespan of a garment that may have had a minor defect or was unwearable. Repair is an act of care in a careless fashion system that encourages us to discard instead of take pride in longevity.

Resale: The act of selling something for a second time. It could be something that is secondhand or vintage. It could also be something that is new, but did not sell in its original context.

Sufficiency model: Sufficiency is a mindset and alternative economic model that represents a shift away from the short term-ism of never-ending economic growth. In a sufficiency-based society, everyone has enough for a good life, but lives without wasteful excess. Sufficiency regards collective wellbeing as the ultimate goal above exponential economic growth, prioritises equity, and fosters a collective sense of commitment towards a fair and livable future.

Synthetic fibres: Synthetic fibres are made from synthesised chemicals (known as polymers) that are derived from petrochemicals such as crude oil. They are plastic based fibres, such as polyester, nylon, and elastane.

Fashion & textile industry: Although textiles and fashion are two different industries it is common to combine them. The textile industry is responsible for all activities related to textile manufacturing and the fashion industry is responsible for the garment production.

Textile waste: A general term used to describe unwanted textiles. This could be from the pre-production stage and the production stage. Or it could refer to clothing that the wearer no longer desires to wear or no longer has a use for.

Waste colonialism: The practice of countries in the Global North leveraging their geopolitical power to dump waste in countries in the Global South, causing communities to shoulder the burden of waste they didn't create. An example of this is the global secondhand clothing trade.

Zero-waste: Designing, creating, and using in a way that aims to keep waste to an absolute minimum.

- Textile swatches, end-of-roll textiles, deadstock textiles, and reject textiles

- Production waste (clean and fairly easy to identify):**

- Customer returns
- Discarded clothes, shoes, handbags, and other accessories
- End-of-use home linens including curtains, towels, sheets, carpeting, upholstery
- Rags
- End-of-use linen from hospitals, care homes, wellness centres, etc.
- End-of-use hospitality and hotels, table cloths, cleaning cloths, linens, towels, etc.
- End-of-use branded or corporate uniforms
- End-of-use workwear
- End-of-use textile-based advertising materials and banners
- End-of-use industrial materials that are textile-based such as netting, awnings, packaging, etc



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DISCARD STUDY 1:

Fashion & textile waste analysis and exploration of solutions

The first Refashion Lab discard study focussed on addressing the challenges and opportunities at the so-called end-point in the life cycle of discarded fashion and related textiles - as it will be sent to landfill. Understanding what controls or happens at the moment before and when fashion & textile waste 'goes to landfill' is critical in determining a whole range of micro and macro impacts, and identifying potential micro and macro circular economies. The study was conducted in two stages:

1: Stage 1 - 5 days - focused on the collection and sorting of fashion & textile waste destined for landfill, and understanding the waste mix. We were interested in gathering data on the condition and composition of this so-called waste and the skills, tools and logistics related to the sorting, assessing and recording the linked data of the waste.

2: Stage 2 - 3 days - explored the potential routes and related practices and values, as well as redistribution logistics required to extract the resource and reuse potential and 'return' the material back into circulation via technology and innovation, through the hands of makers and managed through alternate retail and resale models. Green Cape in its report called *Threading the Loop: Textile recycling and fibre recovery* states that South Africa lacks meaningful textile waste-related data.



Fashion & textile waste for Discard Study 1. Photo: Erica de Greef



Unloading fashion & textile waste at Curb Cycle.
Photo: Erica de Greef

Stage 1: Sourcing fashion & textile waste

On Saturday 13 November 2021, a truckload of fashion & textile waste destined for landfill arrived at CurbCycle, a recycling warehouse on 10th Avenue, in Retreat, Cape Town.

Owner Lee Luddit had organised to redirect this load of fashion & textile waste from the Woodstock Waste Drop-off depot. CurbCycle specialises in paper, plastics, glass and tin

waste streams servicing business and domestic clients with recycling services. A key service is identifying and sorting waste for various buy-back companies. For this eight-day study, we set-up a small team on site consisting of three research interns, Vuyeka Mahlati, Zimkhita Manyamalala and Lihle Mara, who were led and trained by Luleka Zepe, founder of Elamilima Environmental Project.

Source	Type	Part of total 405 kilograms
Rescued from landfill at Woodstock Waste Drop-off depot	Post-consumer waste	204 kilograms
Curb Cycle clients	Pre-consumer factory floor textile waste	174 kilograms
Curb cycle clients	Factory rejects	27 kilograms

In addition to the truck of waste, CurbCycle had collected pre-consumer textile waste from two existing clients for a collaborative feasibility exercise to determine volumes, logistics and related economies.

This consisted of 174 kilograms of factory fabric offcuts, and a 27 kilogram consignment of semi-finished and completed-but-rejected purses that included labels, linings and zips. The truck's load of waste consisted of an assortment of shoes, fashion, textiles and other related items, such as coat hangers.

While unloading, we separated the shoes from other fashion & textiles. Almost all the shoes were well-worn. Many of these were single shoes. Some pairs were identified and we assessed these for potential resale, such as slippers, flip flops, gumboots and a pair of sneakers.

Occasionally, fashion & textiles are included in the mixed recycling received at CurbCycle. A wider awareness of the trash landscape, means that CurbCycle is noting ongoing fashion & textile waste at landfills, dumps and with their clients. This includes home décor, fashion items as well as pre-production offcuts.

Our study set out to identify what and how much we could divert, and at what cost.

Understanding the waste mix

A preliminary overview of the mix of the fashion & textiles revealed that it included almost exclusively casualwear, with a mix of men's, ladies and children's wear. There were lots of single socks, some underwear,

The cost and complexity of sorting, the cost of cleaning, and guaranteed access to market for resale, repair or recycle are all factors that currently prevent uptake of textile waste flows in the circular economy.



Collected fashion & textile waste for Discard Study 1.
Photo: Erica de Greef

many T-shirts, very little denim clothing, and no formalwear, i.e. tailored suits, wedding dresses or party outfits. There were a few workwear items, some costume items, and a fairly large amount of homeware textiles, including many textile furnishing swatches, curtains, pillows and tablecloths. Almost all the clothing showed signs of wear and tear, and in order for us to assess these more effectively, we preselected about one-third of the clothing items to be laundered as both a costing and aesthetic exercise.

Due to limitations of space, and the knowledge that whatever arrived on site for this study, would need to be redirected to alternative endpoints, or ultimately to landfill, limited the collection of waste for this research to 204kg post-consumer waste and 201kg pre-consumer waste.

The discard study aimed to closely interrogate these small waste stream samples as a means to identify patterns, costs and potential

new waste flows and skills for a much larger survey and impact assessment project.

What was collected for this study represents the tip of an iceberg. In order to assess, sort and prepare for diverting from landfill the total 405kg of fashion & textile waste, we first separated the pre-consumer waste from the post-consumer waste, consisting of 174kg of factory floor offcuts and 27kg of manufacturing waste in the form of product rejects. These offcuts and rejects arrived as large, separated entities, in other words different types of fabrics were not all mixed together. This meant that the sorting of the pre-consumer waste did not need specialist skills, time and space to sort the different fabrics i.e. in terms of fibre compositions. One single burn test for each type of fabric offcut bundle allowed for easy fibre identification and classification.

All the pre-consumer waste was identified in terms of composition with 120kg nylon

offcuts, 21.5kg cotton offcuts and 10.5kg polyester offcuts. To protect the identities of the clients of CurbCycle who donated this waste to our study, we did not record their details.

A very wide range of textiles, fashion and related items aggregate into the post-consumer waste stream, making it more complicated to sort, and requiring more time and specialist knowledge.

In order to collect data for our study, we sorted the 204kg into 5 categories of items, which included 46.5kg of shoes; 21kg of all non-clothing items, that included fabric swatches, scarves, crochet blankets, hangers, gloves, ribbons and hats; 3.5kg of socks; 1.5kg of underwear; and 46kg of clothing that for the purpose of this study would be laundered and 85.5kg of clothing remained unwashed. If better presented, would the items have a better resale value and/or opportunity?



Collected fashion & textile waste for Discard Study 1.
Photo: Erica de Greef

Stage 1: Summary

Factory floor offcuts	174 kgs	Clothing	131.5 kgs
Product rejects	27 kgs	Non-clothing items	21 kgs
Shoes	46.5 kgs	Socks & underwear	5 kgs

Laundry: in preparation for Stage 2

The items selected for washing were randomly drawn from the post-consumer waste. They were dropped off at De Kleine Wasserette where they were machine laundered and folded at R15/kg, at a total cost of R700. With 283 garments washed, each item accrued a cost of R2,50 if equally distributed. However, technically this should be distributed per weight of the garment, with some garments weighing more, and therefore absorbing higher laundry costs. In this case, the laundromat was en route between the transport hub and the recycling depot, and transport costs to and from the laundry were absorbed into daily travel with the participants.



Laundered fashion & textile waste for Discard Study 1.
Photo: Erica de Greef



From left: Zimkhita Manyamalala, Vuyeka Mahlathi, and Lihle Mara sort fashion & textile waste for Discard Study 1. Photo: Erica de Greef

Stage 2: Exploring potential routes, and related practices and values

We next identified four potential waste routes that all of the waste would need to take; namely Resale, Repair, Remake and Recycle.

Resale: For this category, the article would be assessed in terms of its condition, the product type, and its potential for resale in the market, whether as a budget item (between R5 and R20 per item) or as a quality resale item (between R20 and R50 per item). This sorting required a fair knowledge of the market to make these selections. In the case of the washed items, these benefited from the laundering, as they were in a better condition for Resale.

Repair: The second category was made up of garments, which although worn and/or damaged, could be repaired to be resold. The damages included lost buttons, tears, split seams, holes, stains or burn marks. In this case the ability to identify the damage and envisage a Repair method or option demanded knowledge of dress-making skills

and Repair methods. A number of the items identified for Repair were in a better condition than the resale items, and additional costs incurred in terms of Repair could be recovered in the eventual sale of the goods.

Remake: The third category identified an important creative opportunity for goods destined for landfill, that are beyond repair and/or would not be sold in the condition they are in, yet their 'component parts' could still hold value. A pair of well-worn denim shorts, for example, could still be used to make a bag, or the pockets could be used to create cellphone pouches.

Recycle: The fourth category identified items whose parts were not salvageable, whether in terms of wear and tear, condition, or quality. Some of the single socks, underwear, homeware textiles, T-shirts and other well-worn clothing items were assigned to this stream.



Sorted fashion & textile waste for Discard Study 1.
Photo: Erica de Greef

Note on data

In order to assess the condition of the textile and fashion objects to effectively assign them to the four waste streams, we assessed and recorded a range of data relating to each item. This included the colour, item, brand and country of origin; composition and condition notes; and, which category the item could be re-directed to namely, Resale, Repair, Remake or Recycle. A total of 283 clothing items

and 20 other textile-related items were recorded. We did not capture individual data for the shoes as separate entries, but suggest that a dedicated future study should be carried out to assess the scale of materials involved in shoes, the recycling potential of the diverse plastics and rubbers used in the soles and inners of shoes, and the spectrum of reusable parts in terms of trims, uppers and fasteners.

Resale

Almost half of the clothing items were identified as having potential to be resold. The most common item for resale was T-shirts totalling 54 out of 106 items considered re-sellable. Almost one-third of the non-fashion items that were destined for landfill (including curtains, pillows, tablecloths, etc.) were also considered re-sellable by the team.

15%

**Redirected from
landfill through
Resale.**

**60kgs of the 405kgs
could be resold made up
of 124 clothing items**

NOTES ON RESALE

The prices for Resale were determined by the participant researchers with experience in the township economy (Luleka Zepe runs a thrifting business in Khayeltisha, Cape Town). The resale potential and related values assigned to the secondhand items ranged from budget (priced between R5 and R10 per item), to quality (at R20), with one or two items identified as high value, such as a denim workwear jacket, or long coat (at R50).

- Based on R50.00/hr for repair, we assessed a number of repairs that ranged from five minutes to an hour. Repairs were completed both by hand and on machines. The costs of set-up to create a repair station/studio were not factored in.
- Based on R100/hr for remake (additional skills and experience required), and calculated as one would to make a garment from the start, the only real saving is the materials cost. This was not piloted and set up costs and production, access to market, retailer commissions etc. all means that the sales profits may fluctuate depending on the product, the market and the consumer uptake.
- In 150 minutes a total of 70 reusable parts were created from 17 items. This means that each new part took around 2 minutes to create, which represents a saving of resources, extending the potential use of the material, but also a savings in the cost of raw materials. In terms of creative possibilities, the re-purposed parts also present original, unique and often useful component parts, from buttons and buckles to trims, accessories and ready-made straps or ties.
- Potential saving from landfill fees, and from buy-back companies could not be calculated at this point. However, CurbCycle did investigate the financial viabilities of the various waste flow streams and found that the logistics and transport costs make collecting and sorting waste an unviable stream to include in its business.

If the projected income calculations are calculated at 50% return on sales projections, then 405kg of fashion and textile waste, when diverted across four (income-generating) categories could earn approx R7000.00. Buy-back of 150kg of sorted textile waste could generate a further income.



Mending fashion & textile waste for Discard Study 1. Photo: Erica de Greef

Repair

A wide range of repair needs were identified, including darning, re-hemming, restitching seams, covering stains, missing buttons and broken zips. These were not separately recorded. A sample of repair times and tasks were recorded, including: replacing buttons at 5 minutes each, darning holes by hand at 15 minutes or by machine 3 – 10 minutes, repairing side seams at 3 minutes each, and covering a stain on a dress at 10 minutes - 14 items were repaired in 131 minutes.

6%

**Redirected from
landfill through
Repair.**

24kgs of the **405kgs**
needed repair with **63**
clothing items identified

Remake

Factory offcuts and/or rejects can easily and effectively be used to make other products for Remake, as a product idea can be sampled once and reproduced effectively. Prototyping and testing for the market is possible, and time spent in research and development of cost-effective or in-demand products makes pre-consumer waste a creative economy worth investigating. School bags for children, washable sanitary towels and reusable shoppers are some product ideas easily developed from pre-consumer waste.

Assessing items of clothing waste to be 'remade', however requires time, design skills and knowledge of making, and where for example disassembly is needed, to be able to separate component parts for re-use, such as buttons, pockets or zips. Post-consumer waste is more complicated to streamline, yet it offers the potential for unique one-off designs. Even when the items are multiple, for example T-shirts, each is made from a different quality, perhaps colour, and at a different stage of wear-and-tear. This means that whatever is designed, the raw material will be different. The second, and highly critical (and costly)

factor with regards to using post-consumer fashion items for remaking, is the degree to which some disassembly is required to reuse the component parts.

One pleather (mock leather) bomber jacket was totally perished on the outer body of the jacket, yet a range of component parts were considered reusable. It took 30 minutes to disassemble the jacket. The pleather outer was discarded (for recycling), and 12 reusable parts were created – 4 zips, 1 cotton striped lining, 1.5m striped binding, 2 binding strips 1.5m string, 2 pocket flaps and 1 small decorative tab. Similarly a single brown suede shoe was disassembled in 15 minutes, and 6 reusable parts were created.

For this pilot study, we sorted through both pre- and post-consumer waste and prepared ideas towards possible remaking, with ideas co-developed with the participants for bags, aprons, scatter cushion/s, crochet mats, small purses, patchwork baby blankets, etc. What became evident, is that the potential to increase the value by design means that this category represents the greatest individual profit if there is a willing market. The risk, however, in this category is high, as the demand for remade goods is not guaranteed, and this process is very difficult to scale up effectively.



Upcycled textile waste.
Photo: Erica de Greef

15%

**Redirected from
landfill through
Remake.**

58kgs of the **405kgs**
that was assessed was
set aside for remaking



Often considered as the largest challenge for fashion & textile recycling is the disassembly process as this is deemed most labour and skill intensive. What our study showed is that the disassembly was very fast. It took 30 minutes to disassemble an entire lined jacket with 12 reusable parts. However, two complex aspects were encountered. Firstly, there would need to be a consistent and accessible recording of the separate parts, followed by their sorting and categorisation for future customers to know what is available to purchase and or re-purpose. Secondly, there needs to be an assessment of useability and subsequent storage in a kind of waste library or upcycle depot of the disassembled parts that would be accessible for designers, creative entrepreneurs and makers.



Disassembled fashion waste. Photo: Erica de Greef

Recycle

The largest and the simplest sorting process in the entire project were the bags of pre-production factory off-cuts. A more complex set of variables are at play when addressing post-consumer fashion and textile waste for recycling, as garment compositions vary greatly, colours are mixed, and very often, there are trims and labels which further complicates fibre-to-fibre recycling. In theory, this pre-consumer waste can be recycled (or downcycled) by Connacher.

38%

**Redirected from
landfill through
Recycle.**

157kg of the **405kgs**
that was assessed was
set aside for recycling



Collected fashion & textile waste for Discard Study 1.
Photo: Erica de Greef

Landfill

Due to limitations of the project, we ended up sending all the shoes and 62kg of textile waste to landfill. This textile waste was comprised of mostly offcuts (such as 100% polyester, 100% nylon and some textile blends) which, if there was more time and funds, could have been processed to reach other recyclers and upcyclers.

26%

Sent to landfill

106kg (44kg shoes + 62kg textile waste) out of **405kg** was sent to landfill



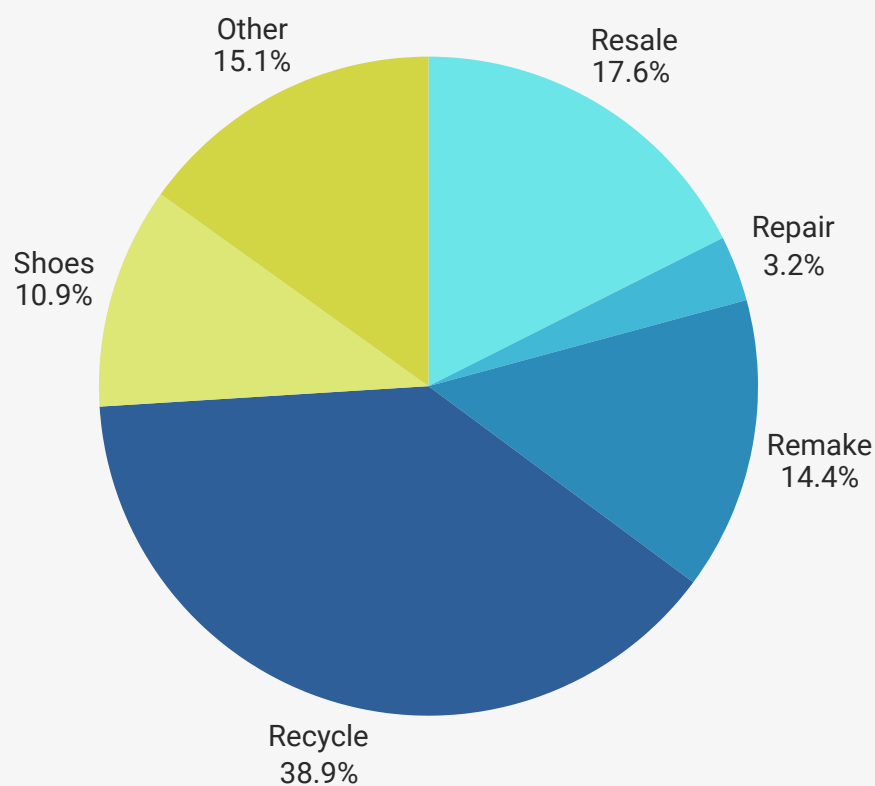
Fashion & textile waste.
Photo: Erica de Greef

Stage 2: Summary

Redirected: 299 kgs	Non-recyclable (ie sent to landfill) 106 kgs
Resale 71 kgs	44 kgs of shoes
Repair 13 kgs	62 kgs of non-clothing / other
Remake 58 kgs	
Recycle 157 kgs	

Redirection analysis

After redirecting textile & fashion waste via four categories of activities = Resale, Repair, Remake and Recycle - only **26% of the goods** in this study would be sent to landfill:



Stage 2: Key Criteria

What this study has shown is that key to the redirection process of all fashion & textile waste is attention to a number of interrelated and key criteria:

- Questions of quality and value to whom
- Inherent potential
- Questions of scale and need
- Skills and new job definitions
- New recycling and upcycling entrepreneurs, and
- Diverse technologies including lo-tech; and economic inputs and outputs.

BUSINESS CASE 1: COSTS

As a business model, the important balance lies in receiving, sorting and selecting costs (the labour and logistic costs) versus the material product itself, the skills and tools for the various jobs, the market, and the potential for financial returns. These are also implicated proportionately across the four categories.

***Resale** = sorting, laundering and storage costs

***Repair** = repair costs (time and materials) and sorting, laundering and storage costs

***Remake** = the smaller the volume of styles produced, the greater the research, design, prototyping, testing, disassembly/reassembly costs, in addition to the sorting, laundering and storage costs. Yet, as a category it offers the greatest possible return on time because an entirely new product can be made, from materials that are unique, available and potentially cost a fraction of the original purchase and/or production price. Finally, marketing costs would be incurred to sell the remade goods.

***Recycle** = sorting costs and transport costs

It took 8 days with 4 research participants to sort, assess, capture data and prepare for diversion a total of 405kg of fashion and textile waste, costing a total of R13 100.00 for the rental, petrol, participant fees, laundry and other sundries.



Rental = R2 400.00 (8 days @ R300/day)

Research participants = R9 400 (1 x team leader x R500pd for 8 days = R4 000.00; plus 3 interns x R300pd for 6 days = R5 400.00)

Laundry = R700.00

Petrol & Sundries = R600.00

TOTAL costs = R13 100.00

The four participants took between six and eight days to process 405kg, each participant therefore processed about 100kg, sorting between 50kg and 65kg per per day. Each kilogram of waste cost about R32.00 to to research, sort and divert (if no sales or buy back avenues were activated).

BUSINESS CASE 2: NEW JOBS

The study demonstrated that although we worked within a recycling workshop, the skills and criteria needed to identify textile & fashion recycling potentials are completely unique to the field, and would need research and training. We included both the collection of pre-consumer and post-consumer waste, and each of these demand different skill-sets and sorting processes. The lack of waste management criteria for fashion & textiles further complicates the selection and diversion choices, as these either do not exist, or they do not differentiate between for example, reusable materials and/or recyclable materials. Key to the entire project is the identification of new green jobs that could be developed for an emerging circular fashion economy.

Mapping the jobs in this pilot study did **not** include new circular jobs across the broader fashion supply chain from the factory floor where recycling and reuse could begin; to retailers where collection bins could facilitate preliminary sorting across categories of resale repair, and recycle; textile waste collectors and drivers; to landfill and environment monitors; to entrepreneurs who prototype new recycling technologies and products; to resellers across a wide range of refashioned products. This indicates that the redirection of waste from landfill has the potential to create a wide range of new jobs both beyond and in the 42 new jobs identified and listed below that deal with specific jobs to these diversions from landfill for fashion & textiles waste.

Collection (5 Distinct activities): Textile waste collectors (independent and organisations); Drivers; Coordinators; Loaders; Waste consultants

Receiving waste (2): Dispatch controllers and receivers; Off-loaders

Sorting & selecting (5): Textile/fibre technologist; Quality controllers; Sorters (resale, repair, remake, recycle); Bundlers; Sorting trainers

Sorting, cleaning, repairing, disassembly handbooks (4): Designer; writer; researchers; translators

Cleaning (2): General & specialist launderers; Cleaning trainers

Repairs (6): General and specialist repairers, Seamstresses and tailors; Crafters (incl.embroiderers and darners); Dyers; Repair facilitators; Fashion designers for Repair & Remake

Disassembling (3): Basic and specialist disassemblers (from T-shirts to trainers); Disassembly materials coder; Disassembly trainers

Redistribution (3): Recycling market analyst, Redirection coordinator; Drivers

Care labelling development (2): Future fashion/fibre content labelling developers for Refashion Labs; Graphic designer

Redesign (4): Product Designers; Upcycling & remake prototypers; Upcycling facilitators; Remakers

Resale (3): SMME Resellers; Trims resellers; Online & IRL Resale retailers

Campaign and marketing (3): Refashion marketing, Media & communications managers; Graphic designer

BUSINESS CASE 3: INCOMES

The waste was diverted across the four categories, and calculations were made by the researchers in terms of the potential return values for each item diverted.

88 x Resale fashion items (budget) @ average R5 = R440.00

36 x Resale fashion (quality) @ average R20 = R720.00

2 x pairs of shoes were identified with Resale potential @ R20 = R40.00

37 x Resale non-fashion textiles fair @ average R10 = R370.00

Income: Resale = R1 570.00.

50 x Repair fashion @ average R15 (after costs) = R750.00

13 x Resale non-fashion textiles @ average R10 (after costs) = R130.00

Income: Repair = R880.00.

74 x Remake fashion @ potential average retail (less costs) R100 = R7 400.00

41 x Remake non-fashion textiles @ potential average retail (less costs) R100 = R4 100.00

70 x Reusable parts @ 50c = R35.00

Income: Repair = R11 535.00.

Recycle fashion and non-fashion = Potential for buy back of 152kg (120kg nylon, 10.5kg polyester and 21.5kg cotton) by businesses like Connacher and Brits.



Upcycled textile waste. Photo: Erica de Greef

DISCARD STUDY 2: FIBRE COMPOSITION RESEARCH

Accurate, reliable data on the fibre content of garments is essential for planning responsible end-of-life strategies in the fashion and textiles sector. As we discover with Discard Study 2, capturing this data is far from straightforward. Yet without it, efforts to scale recycling and reuse systems are likely to miss the mark. In July 2021, we conducted a fibre content snapshot of garments sold online by major South African retailers.

The intention was to better understand what kinds of waste feedstock are likely to emerge at the end of a garment's life and which of these could be processed through current or future recycling technologies.

Globally, most garments are made from blends of different fibres, often synthetics. According to Bloomberg, 95% of styles sampled from the fast fashion retailer Shein contained at least some plastic-based fibres, such as polyester, nylon, acrylic or elastane. Fibre blends complicate recycling, particularly textile-to-textile processes, which require high feedstock purity and struggle to accommodate mixed fibres or garments with chemical finishes. (The notable exception is polycotton, which a handful of innovators are beginning to process chemically.)

Less than one-fifth of global textiles are made from easily recycled fibres: natural or recycled. In fact, Textile Exchange reports that as of 2023, less than 1% of the total fibre market came from pre- and post-consumer recycled textiles. This statistic reflects the enormous technical and systemic challenges to closing the loop in fashion.

In South Africa, most textile waste is currently downcycled. Garments are shredded into “shoddy” and reused in low-value products such as mattress stuffing and insulation. While upcycling fabrics into new products like bags is possible with most fabrics, South Africa currently has no domestic capacity for true textile-to-textile recycling.

That is, we cannot yet turn a cotton T-shirt back into a cotton T-shirt, or a polyester shirt into new polyester fibre.

Clear, standardised fibre labelling is essential for optimising post-consumer textile collection, sorting, and processing. Our research sought to understand what fibres dominate the local market and whether these align with available recycling options. By linking this data to domestic recycling capabilities, we aim to support a system that prioritises lifespan extension and material value retention. Understanding fibre content also enables industry and policymakers to make more informed decisions: whether that’s investing in specific recycling infrastructure or phasing out hard-to-recycle textiles altogether.

Fibre transparency, in short, is foundational to a circular textile economy.

Online retailers in this study

Name	Count of Items	Name	Count of Items
Ackermans	37	Pick n Pay	52
Donna	31	Soda	168
Exact	75	Superbalist	131
Fabiani	37	The Fix	76
Foschini	83	Totalsport	37
Markhams	49	Truworths	99
Mr Price	176	Woolworths	127
Grand Total	1,178		

The table above indicates which brands we analysed and how many garment types from each brand

Methodology

A team of three people documented information about the 1 178 styles of garments for sale online at 14 retailers. The following data about everything marketed online by seven retailers for the month of July 2021 were captured:

- type of garment
- price
- bar code
- special certifications
- fabric type
- percentage of fibres in the content mix

Once the Twyg team had captured the data, it was sent to a professional data scientist, Liam James, who organised it in preparation for assessment and analysis. This analysis is based on information provided by the retailers' online stores. We did not include colour in the data which would have been useful for fibre-to-fibre recycling requires colour sorting.

Results

Information of **1 178** items was captured. These garments were on sale in **July 2021**.

We did not fact check the information by conducting fabric tests in laboratories or burn tests, but we have no reason to believe false information was knowingly uploaded. We conducted two field trips to shopping malls (V&A Waterfront, Cape Town, and Sandton City Mall, Johannesburg) to spot-check the data we gathered online against in-store labels. There were no discrepancies.

For this study, we trust that the information on the label corresponds with the actual fibre composition of the garment. However, we assume the possibility of human error and know there is evidence of incorrect labelling information about material composition and fibre mixes on labels. (Schumaker and Forster, 2022). We did encounter a problem.

Fibres	Quantity	Terms on the label
100% cotton	262	cotton, denim, corduroy
100% polyester	268	polyester, poly, fleece
100% polycotton	67	polycotton, polyester and cotton
100% other natural plant	21	linen, hemp
100% other synthetic	73	polymide, acrylic spandex lycra, polyurethane renylon (2), repolyester (3), PVC, scuba, pleather faux fur, acetate, neoprene, etc
100% animal fibre	2	mohair
100% man-made cellulose	58	viscose, rayon, acetate, triacitate
100% blends (except polycotton)	350	nylon blend, polymide blend, wool blend, acrylic blend, cotton lycra, etc
leather and suede	4	leather, suede
no fibre information	73	lace, crepe, tweed, chiffon, twill, etc
Total	1178	

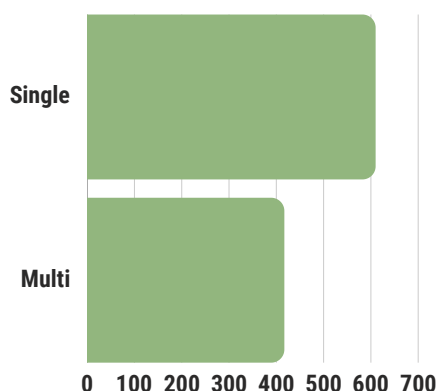
This table indicates the types of fibres we found that were easily classified. Many labels - 73- indicated fabric types, rather than fibres, which makes classifying the data difficult. For instance, label says "rib" or "tweed"

In 73 instances, the labels indicated the type of fabric rather than the fibre composition. For example, we have four garments that are made from "jersey knit", one garment that is made from "american crepe", one made from "tweed" and another made from "lace". Without the fibre composition, this labelling is not useful for data collection about fibres.

Another complication is that the same fibre is called by different names. For example, fleeces were captured as "fleece", "micro fleece", "sherpa fleece" and "polar fleece". We included all these fleeces in the polyester category. There were three suede items which we are presuming are 100% animal suede. Only one item was labelled as 100% leather.

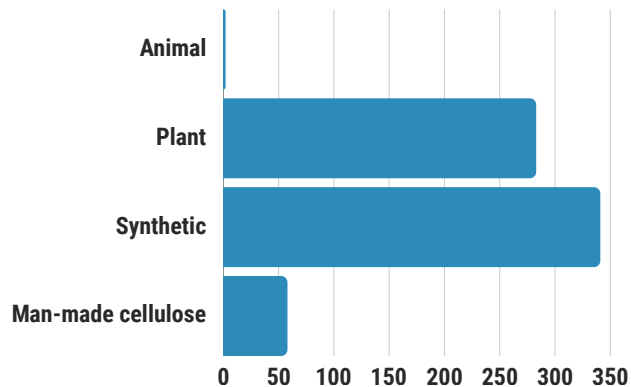
The blends category includes all garments that were labelled as blends and those that were listed with more than one fibre type. So, if it said “wool blend” it falls into this category, and if it says “wool and acrylic” it will fall into this category too. Single fibres are, in theory, easier to recycle than multi-fibres.

Single vs multiple fibres



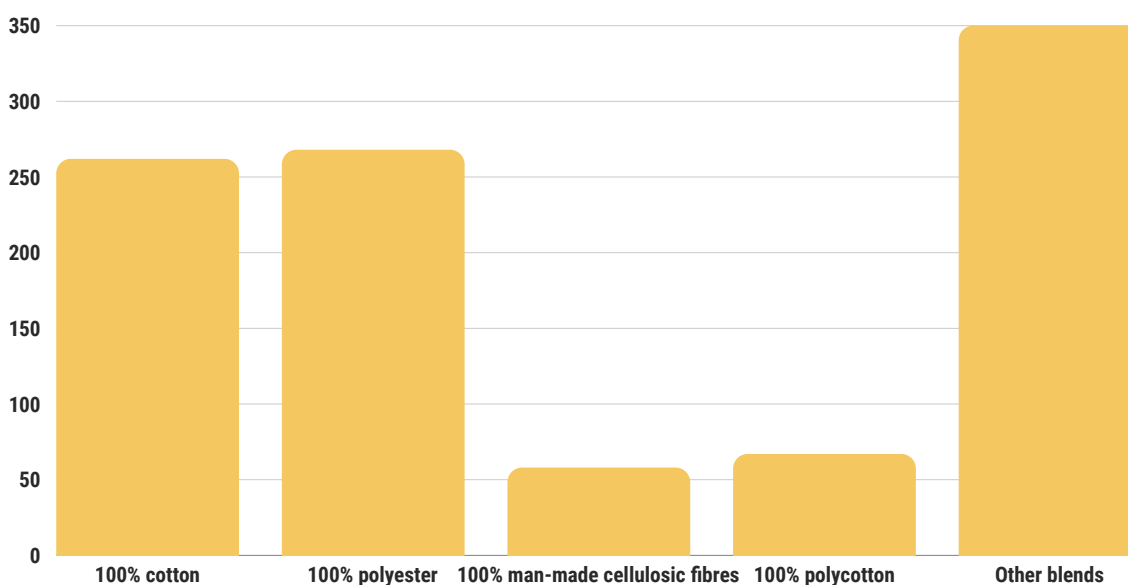
Of the garments we could analyse, we have 610 single fibre garments, 417 multiple fibre garments.

Types of single fibres



Of the single fibre garments, we captured 2 single animal fibres, 283 single plant fibres, 58 single man-made cellulosic fibres, and 341 single synthetic fibres.

Notable single fibre and multi fibre compositions



Cotton and polyester are the two most common fibres. Globally, polyester is the most common fibre with a market share of 57%, according the Textile Exchange. Cotton is the second-most important fibre in the world. Our data collection shows a different trend. Polyester (268) remains the most used fibre, while cotton (262) is not far behind.

Fibres and textiles that have commercial value for recyclers

To make sense of this research and the data that we collected, it's necessary to understand what can be collected and recycled in South Africa. We need to match fibres types with recycling solutions and plan accordingly. For this chapter, we have compiled a table of buy back recyclers and the types of fibres and waste that they collect. This table excludes upcyclers and second-hand traders and other

resellers that can resale and upcycle, and are able to collect and recover a wider range of textiles.

The listed buy back organisations accept and pay for fabric waste that mostly cannot be used for upcycling or resale. However, not all recyclers can accept all types of fashion & textile waste.

Recycler	Fibre types accepted	What they can recycle	Service and product
Connacher - Industrial recycler <i>Hammarsdale (KZN)</i>	Natural fibres 100% Cotton Denim Acrylic Jersey Acrylic Fleece 100% Polyester Polycotton blends	Factory waste (also called pre-consumer and production waste)	Connacher processes 1,200–1,800 t/year which is converted into flock and shoddy used in automotive linings, furniture padding, dog blankets, mattresses, and industrial materials. Shoddy is a nonwoven fibre made from shredded fibres and flock is a term used for short fibres, used to create a fuzzy or velvety surface on textiles or other materials.
Brits - Nonwoven recycling plant <i>Cape Town (WC), Pinetown and Durban (KZN), Johannesburg (Gauteng)</i>	Brits recycles post-consumer textiles (all types of clothing, including fibre types such as cotton, wool) and PET bottles		Brits diverts 100–150 tonnes of textile waste plus 1,080 tonnes of PET per year, contributing significantly to circular material flows. It produces shoddy nonwoven products like insulation, fabric composites, automotive components, and absorbents.
Clothes to Good - Social enterprise <i>Pretoria (Gauteng)</i>	All types of textile post-consumer and pre-consumer material. e recycle all types of textile post-consumer and pre-consumer material.	Post consumer clothing, shoes, bedding, curtains, fashion accessories and other textile waste	Around 960 tonnes of post-consumer clothing waste is recycled a year into early childhood development resources, soft toys and a variety of homeware products. These include aprons, dog-beds, placemats, floor pillows and more. Clothing, shoes, fashion accessories, and other textiles in good condition are sold to micro-businesses to resell to their communities

Certifications, special and other campaigns mentioned on labels (2021)

In addition to the fibre types and composition of the garments, we captured any certifications that were mentioned on the labels. Locally Made and Better Cotton where the two most common mentions. Proudly South Africa and the Forest Steward Council were the next most common mentions. Certifications help build trust with the consumers.

Retailer	Locally made	Proudly SA	Recycled	Forest Steward Council	Ethically sourced	Better Cotton Initiative	Total
Ackermans	0	0	0	0	0	0	0
Donna	0	0	0	0	0	0	0
Exact	3	0	0	0	0	0	3
Fabiani	0	0	0	0	0	0	0
Foschini	0	18	0	0	0	0	18
Markhams	0	0	0	0	0	0	0
Mr Price	0	0	0	0	0	44	44
PicknPay	13	0	3	0	1	7	24
Soda	0	6	0	0	0	0	6
Superbalist	52	0	0	0	0	0	52
The Fix	0	0	1	0	0	0	1
Totalsport	0	0	0	0	0	0	0
Truworths	0	0	0	0	0	0	0
Woolworths	0	0	0	12	0	52	64
Total	68	24	4	12	1	103	212

Analysis

In theory, all garments captured in this study could be repurposed at end-of-life—whether through resale, repair, swapping, or creative upcycling. In South Africa, second-hand traders, charity shops, and upcycling designers already play a vital role in extending the life of clothes.

For materials that can't be reused, commercial downcyclers such as Connacher and Brits offer industrial-scale recovery, turning textile waste into insulation, padding, and other low-grade applications.

However, none of the garments we documented can currently be recycled back into new textiles. There is no textile-to-textile recycling infrastructure in South Africa capable of returning post-consumer garments into virgin-quality fibre. This absence is a missed opportunity: fashion and textile waste is a valuable resource, and recovering it will be essential to creating a circular system.

One of the most common materials in our dataset, polyester, highlights both the complexity and the stakes. Polyester is cheap to produce, easy to wear, and durable. But it is also a plastic derived from fossil fuels, and its widespread use raises significant environmental concerns. As garments are worn and washed, polyester sheds tiny plastic particles—microfibres—into water systems and the broader environment.

Dr. Samiksha Singh, a Johannesburg-based researcher who studies pollution in freshwater ecosystems, points out: “Microfibres are the single biggest direct source of microplastics in our water, and it’s being driven by fast fashion and our consumption patterns” (Ho, 2025).

These plastic fibres, each under 5 mm in length, bypass filtration systems and accumulate in rivers and oceans, threatening aquatic ecosystems and entering food chains.

At the same time, while cotton is often seen as a more sustainable alternative, its cultivation has a heavy environmental footprint—requiring large amounts of land, water, and agrochemicals. As Schumaker and Forster (2022) argue, substituting one fibre for another does not necessarily solve the environmental crisis of fashion—it may simply shift the burden from one part of the system to another.

Instead of idealising any one fibre, the priority must be to reduce the environmental impacts of all fibre types and ensure systems are in place to collect, sort, and recycle textiles responsibly. To do this, clear and consistent fibre labelling is essential.

During our data collection, we encountered significant inconsistencies in how fibre content was labelled. Descriptions were vague, inconsistent, or incomplete. For example, a garment listed as a “wool blend” offered no information about the proportion of wool or what other fibres were included. Without standardised language or reporting requirements, researchers, policymakers and recyclers are left with fragmented data, making it difficult to track trends, estimate recycling potential, or evaluate environmental impacts.

Reliable labelling and transparency around fibre content are necessary steps toward developing local recycling solutions, and toward ensuring that garments sold today don’t become waste tomorrow.

DISCARD STUDY 3: STREETSCAPES

Too much clothing. Not enough justice. Too often a consumer. So rarely a human. Time for reckoning, recovery and reparations. (The Or Foundation, 2022)



Since November 2022, Refashion Lab has hosted a weekly upcycling sewing circle, and a monthly thrift store at Streetscapes in Cape Town. This project is ongoing. Photo: Erica de Greef

The Refashion Lab collaboration with Streetscapes addresses the challenge of diverting and redirecting fashion & textile waste – secondhand clothes, hospitality and corporate textile waste flows, and unsold goods – from landfill. A second component to this project involves the close study of co-creation with individuals and organisations, through building symbiotic partnerships and through leaning into the range of tacit knowledges that are latent in marginalised communities.

Since November 2022, and during weekly workshops (run by Holly Kane and Luleka Zepe), fashion & textile waste is sorted, mended, upcycled and recycled, while simultaneously training, skills-sharing and experimentation occurs. We also established a Streetscapes thrift store with support from Khanyi Mahote.

Streetscapes provides a model for sustainable urban regeneration while simultaneously addressing the needs of homeless and vulnerable communities living in shelters.

Key to the urban gardening programme is LaundReCycle, the first South African fully off-grid eco-laundry that uses renewable energy and is a closed-water cycle.

Bags of no-longer-wanted clothes, hospitality and spa industry waste (towels and linen), as well as some manufacturing waste (off-cuts) are donated weekly to Streetscapes, by customers, neighbouring businesses, and concerned Cape Town residents. With their branch at Roeland Street in Cape Town, we set up an ongoing project to assess these waste flows, to redirect where possible, and to engage in a range of refashioning skills (from quilting to embroidery to darning and styling) working closely with a dedicated group of Streetscape trainees. Some of the clothes are selected for the trainees own needs, and an in-house lay-by system was established to generate a welcoming environment for those most marginalised to access and invest in their chosen items. This is the first small circular ecosystem of the project.

The textiles that flow through Streetscapes demonstrate a small sample of the broader post-consumer and manufacturing textile waste flows of the city. The trainees assist with sorting and selecting the clothing and other textiles into items into streams that can be resold, repaired, remade and recycled. The laundromat offers a resource-efficient and sustainable way of cleaning and drying clothes, and the donated clothes are washed on site, ensuring a second circular ecosystem.

Items in good condition are sorted and prepared to be resold for the monthly Streetscapes thrift store where the participants engage with the public in the resale of these clothes. By having to sort, price and sell these items, the participants engage in a range of critical skills – giving them the entrepreneurial tools to perhaps one day start their own business.

Since November 2022, we have led weekly workshops that have focussed on a balance between sorting and upskilling. A small committed group of trainees (between 10 and 20) participate in co-creating upcycling and mending ideas. Relevant skills such as fixing holes, quilting, sewing buttons, knitting and for instance making a T-shirt or towelling yarn that can be woven or plaited into new clothes or home décor items, are shared by members across the group, inviting co-learning and peer-exchange. Co-learning is key here, as many participants arrive with existing, exciting and innovative craft skills. In addition, co-hosts are also invited to share creative skills with participants, including a crocheter, an embroiderer, and a stylist. Ditiro Mashigo, a fibre artist, shared ways of dyeing and creative block-printing with natural, vegetable dyes and materials. Retired art teacher Linette Hugo shared her embroidery knowledge and inspired design ideas at workshops.



At Streetscapes, Refashion Lab assists with upcycling textile waste. These are discarded towels from hospitality clients that being upcycled into a bath mat. Photo: Erica de Greef

CO-CREATING CIRCULARITY

At the centre of Refashion Lab's weekly workshops is firstly, the symbiotic partnership between Refashion Lab, Streetscapes, LaundReCycle and their clients, and secondly, the provision of an empowering environment for co-learning and co making/ crafting a range products and fashion items for (re)sale.

Working with vulnerable communities through the lens and language of fashion & textiles, does not reduce the complexity of their precarious situations, but it can act as a bridge, and helps to create a language of sharing, both in terms of dialogues and skills. Working with unhoused, homeless and marginalised communities requires careful attention to the dynamics of privilege and precarity that underpin the weekly exchange. Using fashion (as a form of social repair) situates these crafting encounter workshops in contested terrain. For the trainees, participation is full of hope, yet, despite our interventions, their world realities of survival and stability would require a lot more than the workshops can offer.

In addition, the social entrepreneurship model that is often presented as a possible pathway for vulnerable communities in terms of self-reliance, rehabilitation and integration, is a hugely challenging path. As a concept, social entrepreneurship spans the domains of sustainability and ethical practice, but it is also a business and market-driven ideology that is used in 'development and aid' projects. Achieving success as a social entrepreneur from a position of precarity is perhaps asking too much.

The textile heritages (including aesthetic registers of taste, style and product ideas) of marginalised communities has almost always been overridden by designers and project administrators (predominantly trained in western business and fashion models) with the assumption that they (outsiders) can bring their knowledge and expertise to solve others' (insiders') problems. Some of these inherent ideologies and methods can challenge the success of these kinds of co-created socially-driven projects.

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Working with vulnerable communities through the lens and language of fashion & textiles, does not reduce the complexity of their precarious situations, but it can act as a bridge, and create a language of sharing, both in terms of dialogues and skills.

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LuLeke Zepe, a circular economy expert, volunteers for Refashion Lab and Streetscapes. Photo: Jackie May

SOCIO-ECONOMIC COMPLEXITIES

As the Refashion Lab aims to create opportunities for Streetscape participants to enter into the circular fashion system with new in-demand skills – whether it's a resale, or upcycling and repairing garments, or recycling textile waste – we are aware of the complexity of these scenarios. In this case, the Refashion Lab is more than giving fashion & textile waste the opportunity for another life, it proposes that the greening of the fashion system, to include greater socio-economic diversity and become more circular, could also offer the participants involved, the opportunity for another life.

We propose that if we include diverse communities in the full cycle of fashion, there could be a circular role for everyone in developing and delivering a greener fashion industry.

There are a wide range of opportunities in the new green and circular economy for collecting, sorting, recycling, distribution, design and redesign, disassembly and reassembly, retail, innovation and more.

In order for these opportunities to come to fruition, however, Streetscapes or the Refashion Lab cannot proceed alone. These opportunities are reliant on another level of collaboration and co-creation - of business, policy-makers, municipal structures, retailers, manufacturers coming together. Much like the pioneering, interdisciplinary work of The Or Foundation, we recognise that the specific challenges, needs, knowledges and futures that we have also identified in Cape Town, will need partnerships and investment with like-minded initiatives, thought-leaders, industries, and city projects, such as the Green Cape, Taking Care of Business, Rewoven, and retailers etc. To address job creation, economic and environmental justice, we collectively need to harness the potential in textile waste flows to address:

- Safer environmental futures,
- Greener job opportunities,
- Circular economy benefits,
- Social equity, and
- Cultural advocacy and justice.



A Refashion Lab thrift store at Streetscapes fashion waste. Photo: Erica de Greef

UNRAVELLING THE CONTEXT

6,4% of landfill is fashion & textiles in Cape Town (Green Cape 2020, 2023)

INTRODUCTION

In order to frame Refashion Lab's research on the critical issue of fashion & textile waste in South Africa, we provide an overview of the context of waste in South Africa and in other parts of the world, and reflect on ideas on how to reduce waste. For this, we draw from peer-reviewed articles, mainstream journalism, industry reports, and related publications, as well as interviews with South African industry stakeholders.

Collectively, current (local and global) efforts to change the fashion & textile system and to harness waste flows present pathways and opportunities for meaningful and achievable transitions towards more sustainable, sufficiency-based, circular fashion & textile systems. With commitment to change and with support from public and private sectors, these efforts could lead to the creation of new green jobs, reduce the fashion & textile impact on the planet and people, and lead to the creation of an improved, sustainable fashion & textile sector.

According to the Department of Environment, Forestry and Fisheries' National Waste Management Strategy (2020), South Africa generated 55 million tonnes of general waste in 2017, with 11% diverted from landfill. There is little record or analysis of the role of fashion & textile waste streams in landfills in South Africa while there is evidence of this waste polluting the environment (Oberholzer, 2022). There is evidence, too, of it clogging up sewerage systems in South Africa. In Cape Town (where we are based) fashion & textile waste takes up more than 6%

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Unfortunately in South Africa, nobody can quantify [the textile waste problem] because it's not considered priority waste yet, even though it is appearing in landfills and rivers.

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*Dr Noredine Loeid Mahdjoub,
senior research scientist
at the University of KwaZulu-
Natal, 2022 (Oberholzer, 2022)*

of increasingly scarce landfill space (Oberholzer, 2022, Green Cape, 2020 and 2023). On occasion, it is informally and formally burned releasing and exposing people to chemical hazards (Sokhuthu, 2022).

South African fashion & textile waste was referred to as 'non-recyclable' in a Green Cape report in 2020 (Green Cape, [Market Intelligence Waste Report](#) 2020:16). However, fashion & textiles were also identified by the same organisation as offering circular opportunities through re-use and recycling for community involvement and low-skilled work opportunities with an associated positive impact on the environment (The Circular Economy Guide for the Waste Sector, Green Cape, 2020, 31).

Creating employment is critical for South Africa, and a key reason for Refashion Lab's research and community work. New jobs can be created not only through the manufacturing and processing of virgin fibres and new clothes, but also through the

management, redirection and repurposing of local fashion & textile waste flows, i.e. a circular economy. These new 'green' jobs should not jeopardise those who currently work and earn a living in the informal sector as collectors, sorters and sellers of second-hand clothing.

Refashion Lab's mission is to explore the viability of processing fashion & textile waste. In addition to the existing formal and informal recycling sector further opportunities lie in the scaling of the collection, sorting, disassembling, recycling, upcycling and recycling of fashion & textile waste which will reduce and can potentially eliminate fashion & textiles waste ending up in landfill (National Waste Management and Strategy, 2020; May 2022).

Besides waste management - along with the revalorisation of this formal and informal work - the development of a circular and low carbon fashion & textiles economy requires redesign of raw material sourcing, sustainable farming for natural fibres, closed-loop manufacturing, multiplying retail-ready remake business models, repair centres, and incentives for material research and innovation, new materials production and processing, and circular and sustainable design incentives and practices, consumer engagement and education, along with ensuring workers' rights and decent work (Crowe Pettersson, 2023).

"While no data exist for South Africa, re-use and recycling of clothing and textiles offer many circular opportunities for community involvement and low-skilled work opportunities with an associated positive impact on the environment."

Green Cape, 2020:31

This chapter is intended to zoom in and out of South Africa so as to locate the fashion & textile industry in a wider context and as such put its waste into a local sector context.

The next section sets a global scene.

“A vision of a greener economy that cannot provide sufficient jobs and incomes will not win acceptance from its citizens. Yet, an economy which provides jobs and incomes at the expense of our planet and life, is a dead end.”

Simon Eppel, Southern African Clothing and Textiles Workers' Union, May, 2022

GLOBALISED FASHION & TEXTILE SYSTEMS

The fashion & textile sector is a highly complex global system with multiple supply chains spanning across multiple countries and waste flows at each and every stage of the system. Its value chain consists of the different stages of production, from the growing and supply of raw materials to design, retail, consumption, reuse of garments and, finally, to landfill (Notten, 2020).

With the global phasing out of the MFA Multifibre Arrangement in 1995 (MacDonald, 2006), the Agreement on Textiles and Clothing under the World Trade Organization (under the General Agreement on Tariffs and Trade) in 2005, and the increase in production of cheap synthetic fabrics, garment manufacturing in multiple countries including China, Vietnam and Bangladesh has grown rapidly disrupting local markets across the world (Dottle and Gu, 2022; Tarver, 2022).

While exact figures are unknown as there is a lack of transparency from almost all manufacturers and retailers about production volumes, it is estimated that between 80 and 150 billion garments a year are now made (Good on You, 2023). The Global Fashion Agenda report (2017) claims that globally the production of clothing is estimated to be around 92 billion tonnes. Significantly, clothing production has doubled in the last 15 years (Ellen MacArthur Foundation).

Chinese online hyper-fast fashion retailers, such as Temu and Shein (the latter reportedly puts out an average of 1,000 women's new clothing styles per day) have growing footprints in the South African market with the South African Revenue Service stepping in to impose "45% tariffs, plus VAT, on small cut-price clothing imports flooding the SA market from these brands" (Dottle and Gu, 2022 and Cronje, 2024).

Zara, a European fast fashion company produces 450 million garments a year (Ellison, 2023) with sales to the value of 32,6 billion Euro in 2022 (a rise of 17% since the previous year).

The overall growth in global consumption and the growing fashion & textile sectors is driven partly by growing populations and partly by well-resourced marketing strategies. reating seasonal, monthly,

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It is in these receiving countries that waste management is carried out, commonly with scarce resources and often with both individuals and government agencies taking on debt to carry the costs of managing other people's unwanted clothing. ”

The Or Foundation, 2023

and even weekly fast fashion trends “stimulates people to buy more [fashion & textiles and dispose of them in a shorter time. Globally, per capita fashion waste is about 17.5 kg annually” (Moazzem, Crossin, E., Daver, and Wang, 2021).

Lightly-worn clothes are regularly replaced with newer versions sold to the consumer as the next 'best buy' or 'must-have' item resulting in an increase in the rate of fashion & textile waste generation. Clothes have become easily disregarded because they are cheap to replace.

A globalised and booming second-hand clothing trade market has emerged alongside this increase in primary production of clothing, “with over 4.5 million metric tons of second-hand clothing annually (representing an estimated 23 billion items), collected primarily from across the EU, North America and parts of Asia and sent to countries primarily across the continents of Africa and Central and South America” (The Or Foundation, 2023).

Since there are environmental and social concerns associated with the production, trading and wasting of fashion & textiles, the industry needs to lower rates of production and fashion & textile waste needs to be reduced and managed. This presents opportunities for “new streams of revenue and new materials, reducing dependency on virgin materials and diverting waste from landfill and incineration,” according to Fashion for Good (2022).

Global bodies are calling for the development of a more sustainable fashion & textile sector which is:

“Resource-efficient and renewable resources-based, producing non-toxic, high quality and affordable clothing services and products, while providing safe and secure livelihoods. To achieve such an industry will require a shift in business model towards more circularity, informed consumers and fair, transparent and traceable value chains. Implicit in the definition of a sustainable textile value chain is that it must operate within planetary boundaries, and that consumption cannot go unchecked, regardless of how efficient and circular the system is able to become” (Notten, 2020:45)

SOUTH AFRICA’S RESPONSE TO A GLOBALISED FASHION & TEXTILE SYSTEM AND TO WASTE

In 2019 when South Africa’s national R-CTFL (Retail-Clothing Textile Footwear and Leather) master plan for a 2030 sector vision was completed, the emphasis was on reviving a depleted local fashion & textile sector worn out by globalisation and unsupportive policy. The focus of the master plan 2030 is on stimulating job creation and new trade frameworks and initiatives to better shield South Africa from rising external competition coming from China (Ho, 2023).

With the stakeholder commitment and the government’s master plan, the industry is

expected to grow and to create more jobs (Jenkin, 2022). Presented to Parliament in 2022, the key targets of the master plan highlight efforts to boost employment numbers [from 210 000] to 330 000 R-CTFL jobs by 2030; for retail sales to hit R250 billion; to expand local procurement up from 45% to 65%, which translates to R66 billion; and to find ways to improve competitive-ness, technology, skills and transformation (Ho, 2023).

In Cape Town, just over 23 800 people work in its clothing and textile industry which is one of the Mother City’s historically most important industries. Research by the Cape Clothing and Textile Cluster found that at least 20 000 more jobs could be created in clothing and textile manufacturing in the city if more production is localised (City of Cape Town, 2021).

The potential increase in local manufacturing, however, will simultaneously lead to increases in both pre- and post-production fashion & textile waste. There is currently no coordinated national or Western Cape government strategy for the management of fashion & textile waste.

The responsibility of managing fashion & textile waste lies with the industry, retailers and consumers. Currently, there is no extended producer responsibility (EPR) policy factored into the local manufacturing sector.

There are EPR policies in countries in the Global North. These policies are regulatory measures that hold fashion & textiles producers accountable for the waste they create when introducing new products into the world. This is typically done by mandating an EPR fee from brands for each garment they create to a waste management organisation. This revenue is used for the collection, sorting and recycling (i.e. the responsible management) of fashion & textile waste.

In South Africa, there is, however, an extended producer responsibility for packaging:

“As a pro-active response to the growing national concern around waste and its impact on society and the environment, South Africa published the Section 18 Regulations to the National Environmental Management: Waste Act on 5 November 2020, which refers to the Extended Producer Responsibility (EPR) aspect of the National Environmental Management Waste Act (NEMWA). The regulations came into effect on 5 May 2021. This new legislation makes EPR mandatory for all producers and importers of packaging. It changes how producers, brand owners, retailers and importers design, make, sell and keep their products in the recycling loop as far as is practicably possible. Any company or brand that makes or imports any form of plastic packaging for distribution is required to pay an EPR fee per tonne. Strict targets have been set by the Government, for yearly collection and recycling, that need to be met over the next five years. EPR will see an investment in collection infrastructure.” *Plastics SA*

Along with Green Cape, World Wildlife Fund and Trade & Industrial Policy Strategies, we recommend (see page 80) that fashion & textiles waste should fall under EPR in order to finance collection, sorting and recycling infrastructure.

Without the infrastructure, nor the policy to help manage fashion & textile waste flows, there are environmental and social consequences.

FASHION AND TEXTILE FOOTPRINTS

The dominant fashion & textile system is shaped by the global North and driven by a business model that encourages constant and exponential economic growth. Until recently it failed to take into account any of its social, cultural or environmental impacts. Fortunately in recent years, new developments such as the EU Strategy for Sustainable and Circular Textiles in Europe and the Responsible Textile Recovery Act in California, United States, are being implemented to encourage more responsible behaviour.

Below we identify five impacts of this industry.

1. Cultural impact

Anthropologist Sandra Niessen (2020) points to the negative impact of the Western fashion system which is rooted in the colonial understanding that fashion is found only in the Western or the modern world order. The fast textile & fashion system and its associated second-hand trade has damaged indigenous clothing traditions, many of which have been erased from the fashion map, and only considered as inspiration.

A Zimbabwean creative told Jackie May (May, 2024), “I wish people would just get over us having a fashion culture. We are now a re-worn fashion nation.”

Pushback against the globalised, monolithic fashion system is growing with increasing focus on localised, traditional, artisanal slow fashion honouring sustainable practices.

This is evident in the work of Zimbabwean creative, Gilmore Tee who is the curator and director of a three-year-long Zimbabwean fashion project “I wear my clothes”.

Tee says, “We are so rich in our individual tribal groups and all we yearn for is to be seen, heard and celebrated” (May, 2024). These efforts to revive artisanal craft skills have seen small community-based projects lead in the field of sustainable fashion & textile best practices.

As in Zimbabwe, designers in South Africa and across Africa are decentring the global fashion narrative with brands that are growing in stature and success, and emerging as leaders in the field of sustainable fashion & textile best practices. Think of Lukhanyo Mdingi (South Africa), Sindiso Khumalo (South Africa), Lagos Space Programme (Nigeria) and Danayi Madondo (Zimbabwe).

A recent fashion exhibition in Nairobi is testament to this, too. Called Tradition(al), the exhibition interrogates and celebrates the practices of contemporary custodians of tradition across the continent. Kenyan curator Sunny Dolat selected 19 designers, including Maxhosa Africa (South Africa), Papa Oppong (Ghana), IAMISIGO (Nigeria) and Johanna Bramble (Senegal) to draw attention to “the diverse spectrum of materials, expressions, silhouettes, and knowledge systems that have, in surviving to this day and age, resisted the oppressions of imperial erasure” (Twyg, 2024).

2. Climate change impacts

The fashion & textile industry emits up to 10% (Dottle and Gu, 2022) of total global greenhouse gases. The OR Foundation (2023) argues that without intervention, the fashion industry is projected to account for 26% of global greenhouse gas emissions by 2050. Currently around 70% of these emissions come from materials production, preparation and processing, with the remaining 30% from retail operations and end-of-use activities (Berg, Magnus, Kappelmark, Granskog, Lee, Sawers,

“Our world has a variety of fashion systems. For decades, the dominant fashion system has been shaped by those located in privileged parts of the world. This system, driven by a business model encouraging constant and exponential economic growth, fails to take into account what it is slowly erasing as a result in its sacrifice zones: fertile land, clean water and local cultures.

Sustainable fashion is also broadly defined by this system.

This has resulted in problematic and often-clashing beliefs of how one could contribute to the sustainable fashion movement and, more importantly, of who could contribute to it: those who can afford it.

Although conscious consumerism is pivotal, this singular understanding of sustainable fashion has a dramatic flaw: it does not consider or guarantee diversity, equality and inclusivity.

As long as this doesn’t change, it seems impossible to create change that has a significant positive impact on all of us.”

Sandra Niessen, Whataboutery in State of Fashion, 2020

Polgampola, Lehmann, Syrett, and Arici, 2020). To align with the global imperative of limiting Earth's warming to 1.5 degree Celsius, the industry needs to reduce its emissions by at least 50% compared to 2018 levels of emissions (Notten, 2020).

Reduction of greenhouse gas must be achieved through decarbonisation and depolymerisation of the industry at each stage of the life cycle. This includes reducing waste, efficiency improvements, use of preferred fibres, improving product design, use of renewable energy during the manufacturing phase. It will require reducing use of fertilisers and pesticides during the production of fibre phase. Finally making greater use of circular business models, and encouraging better consumer care (less washing) can further reduce emissions and decrease the negative impact of the fashion & textile industry.

3. Fashion & Textiles and the planetary boundaries

The Stockholm Resilience Centre developed a framework of nine planetary boundaries to show how human activity interacts with the biosphere (Earth systems). The planetary boundaries framework helps scientists to track and communicate how human activity's rising pressures destabilise our planet. It's critical that our biosphere remains stable and resilient – and within these boundaries - to ensure favourable conditions for human existence (Steffen et al., 2018; Folke, 2016). The fashion industry has activities across the value chain that cross these boundaries, and the sector contributes to the probability of generating large-scale abrupt or irreversible environmental changes.

The nine planetary boundaries are:

1. Climate change
2. Change in biosphere integrity (biodiversity loss and species extinction)
3. Stratospheric ozone depletion
4. Ocean acidification
5. Biogeochemical flows (phosphorus and nitrogen cycles)
6. Land-system change (for example deforestation for agriculture)
7. Freshwater use
8. Atmospheric aerosol loading (microscopic particles in the atmosphere that affect climate and living organisms)
9. Introduction of novel entities (pesticides and genetically modified organisms)

Six of these boundaries have been crossed: 1) climate change; 2) change in biodiversity integrity; 3) biogeochemical flows; 4) land-system change; 5) freshwater use; and, 6) introduction of novel entities.

All along the supply and consumption chain, fashion & textile sectors add to these transgressions. Manufacturers, designers, retailers and related industries should all commit to producing less toxic, affordable textiles in circular systems that put less pressure on these precarious planetary boundaries.

The Fashion On Climate (Berg, Magnus, Kappelmark, Granskog, Lee, Sawers, Polgampola, Lehmann, Syrett, and Arici, 2020) recommends that by 2030, one out of five garments should be traded through a circular business model (swapping, renting, recycling, etc). Manufacturers and retailers should be incentivised to decouple growth from using virgin materials, and embrace recycling materials and use circular approaches to production and consumption.

4. Unfair(ness) of production

Fashion & textiles are mostly manufactured in Global South countries where local resources are extracted and used (water, energy, land use, materials) and where manufacturing pollution (chemicals, waste water, air pollution) impacts local populations and the natural environment. Often labour in these countries is exploited to meet the pricing demands of the industry. Newly produced clothes are primarily exported from manufacturing hubs in the Global South to consumer markets in Global North countries and then, post-consumption, are exported back to the Global South as second-hand clothing.

Besides carrying the burden (pollution) and responsibilities of manufacturing, the Global South is being affected more by climate change than those in the Global North. The fashion & textile waste (about 23 billion items every year) that is redistributed through the second-hand clothing trade to other parts of the world creates environmental and social problems. This is well documented by The Or Foundation (2023) in its Stop Waste Colonialism position paper. A significant portion of the clothing shipped into ports like Tema in Accra, Ghana, ends up as waste, with around 40% being unsellable (Ho, 2024). This textile waste overwhelms local waste management systems, leading to grave pollution of landscapes and beaches. In addition to the social and environmental problems, this dumping of second-hand clothing has negatively affected local fashion & textile industries and fashion & textile cultures.

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The emissions of the richest 20% were 20 times higher than the emissions of the poorest 20%. This ratio varies substantially across (and in South Africa, within) countries, consistent with levels of income inequality.

”

Hot or Cool Institute, 2022

5. Waste gone wild

Recent reports and documentaries demonstrate the scale fashion & textile waste is manifesting in areas such as the Chilean desert, Nairobi, Kenya and Accra, in Ghana. “On the one hand, this influx of Western clothing into Sub-Saharan Africa provides access to affordable clothing for many people through this free, unregulated trade. On the other hand, this abundance of Western clothing contributes to the degradation of biodiversity,” says Enna Uwaifo, a people-centred sustainability professional (Twyg, 2024)

The now famous Ellen MacArthur Foundation claim] is that, “Every second, the equivalent of a rubbish truck load of clothes is burnt or buried in landfill.” Furthermore, around 87% of discarded textiles ended up in landfill, of which more than 90% are reusable and recyclable (Moazzem, Wang, Daver, and Crossin, 2021)

“Climate justice is crucial because those who have contributed least to climate change are being disproportionately affected.”

Aditi Mukherji, Intergovernmental Panel on Climate Change, 2023

Waste is produced across every point of the fashion & textiles value chain, commonly referred to as pre-consumer / pre-production, production waste and post-consumer waste.

Fashion & textiles have different applications, and the waste comes from residential (clothing, and home textiles including towels, curtains, bedding), industrial, commercial, and institutional sectors.

In developed countries with well-resourced waste management systems, textile waste or excess clothing is collected, sorted and distributed to recyclers and second-hand sellers across the world, especially the Global South countries; sent to land fill or incinerated, depending on national regulations and on waste management practices (in Germany fashion & textile waste is not sent to landfill).

A significant portion of the clothing shipped into ports like Tema in Accra, Ghana ends up as waste, with around 40% being unsellable (Twyg, 2024).

This textile waste overwhelms local waste management systems, leading to pollution of landscapes and beaches illustrating the tangible impact on the environment, including habitat loss and pollution. In addition to the social and environmental problems, this dumping of second-hand clothing has negatively affected local fashion & textile industries and fashion & textile cultures.

“More than 90% of the clothing waste found in landfills is reusable or recyclable. When clothing is disposed of, it often still has about 70% of its useful life.”

Moazzem, Wang, Daver, and Crossin, 2021

WASTED IN CAPE TOWN, SOUTH AFRICA

There is no national and comprehensive understanding of the quantity of new clothing sold in South Africa, nor how much of it is recycled or how much goes to landfill.

We do know that over 6% of landfill in Cape Town's municipal landfills constitutes fashion & textile waste (Green Cape 2020 and 2023). The Western Cape's 57 landfill sites were also nearing capacity two years ago, according to a report in Cape Town's Weekend Argus (April, 2022).

With a growing population and a growing middle class, we should expect more fashion & textile waste in South Africa.

Interventions are urgently needed for collecting and redirecting fashion & textile waste from dustbins and landfills. These interventions should support the vision of a greener economy that provides jobs and livelihoods.

The National Waste Management and Strategy (2020, 17) claims that the waste management sector can contribute to reducing unemployment, poverty and income inequality; and it is an important element of building sustainable communities. These opportunities do not only lie with waste management but in the creation of a fully circular and sustainable fashion & textiles industry.

The Southern Africa Clothing and Textile Workers' Union's Simon Eppel argues that any economy which provides jobs and incomes at the expense of our planet and life, is a dead end.

In a small study of 35 respondents who live in Cape Town townships, Twyg found that unwanted clothes were either burnt (4), thrown away in a dustbin (12) sold, sent to family in the Eastern Cape (12) or handed down to siblings (7) - Sokhuthu, 2020

Factors impeding waste prevention and waste recycling in South Africa:

- The low cost of landfilling is a major issue since it encourages waste generation, as it is currently convenient to landfill;
- Lack of incentives to motivate action in manufacturing processes;
- Lack of data on waste streams;
- Commercial pressure to shorten innovation and product development cycles;
- The extent to which a general perception exists amongst consumers that products containing recycled or reused content are of lower quality than those produced from virgin materials;
- Lack of infrastructure for recycling;
- Lack of a recycling culture;
- Lack of support and cooperation for service providers working with waste in some municipalities;
- Lack of education and awareness in some districts; and
- Waste sector not prioritised in some municipal IDP and budgeting.

The National Waste Management Strategy (2020, 14)

WHY NOT WASTE

Recycling - and other circular business opportunities such as resale, rental, rewear and remake - creates pathways to reduce unemployment, reduce waste sent to landfill, reduce energy consumption and reduce negative environmental impacts.

For instance, in its 15 years of operating, Taking Care of Business has diverted almost 23 million items from landfill, and recruited 8 000 people into training programmes. Through its Remake programme, it has received 113 802 donated fabric items and haberdashery from four key supply partners which its 80 participants transform into new garments and products.

Similarly, Clothes to Good supports women-led micro enterprises to resell second-hand clothes.

POLICY OVERVIEWS

Policies drive change and can incentivise sustainable practices. Policy development for fashion & textiles should be underscored by the Constitution of South Africa South Africa, Section 24 which states that, "Everyone has the right to an environment which is not harmful to their health or well-being, and have the environment protected for the benefit of present and future generations through reasonable legislative and other measures that:

- prevent pollution and ecological degradation
- promote conservation
- secure ecologically sustainable development and use of natural resources, while promoting justifiable economic and social development.

This means that the constitution protects our health and well-being and it places a duty on the state, on business, and on all South Africans to prevent pollution and other damage to the environment, and to promote conservation and sustainable development. In addition, national, provincial and local authorities have a duty to take reasonable steps, in their current functions as well as future plans, to prevent pollution, promote conservation and ensure sustainable development.

The National Waste Management Strategy (2020) provides government policy and strategic interventions for the waste sector and is aligned and responsive to the Sustainable Development Goals (SDGs) of Agenda 2030 adopted by all United Nations member States, and to South Africa's National Development Plan (NDP): Vision 2030.

According to the former Minister of Forestry, Fisheries and the Environment, Barbara Creecy's introduction to the strategy (2020), the "circular economy" concept is at its centre.

Creecy explains: "The circular economy is an approach to minimising the environmental impact of economic activity by reusing and recycling processed materials to minimise: (a) the need to extract raw materials from the environment; and (b) the need to dispose of waste.

The circular economy is built on innovation and the adoption of new approaches and techniques in product design, production, packaging and use – industrial symbiosis, for instance, is a way of preventing waste in industrial production by redirecting waste from one production process to serve as raw materials for another production process" (2020, 8).



An upcycling waste studio in Cape Town. Photo: Erica de Greef

NATIONAL WASTE MANAGEMENT STRATEGY

The key principles underpinning the 2020 strategy:

- **Waste minimisation** refers to avoiding the amount and toxicity of waste that is generated and, in the event that waste is generated, the reduction of the amount and toxicity of the waste that is disposed of.
- **Waste prevention** refers to avoiding the generation of waste and avoiding toxicity in waste.
- **Waste as a resource** refers to beneficiation of waste through re-use, recycling, treatment and recovery to reduce the amount and the toxicity of waste disposed of
- **Sustainable strategic partnerships** refers to government establishing and sustaining collaborative working relationships with non-government role-players involved in the management of waste, i.e. private sector, academia, civil society organisations and other development funding institutions
- **Environmentally sound socio-economic growth and development** refers to ensuring that the intent and commitments of the SDGs, NDP are continuously integrated and aligned to all environmental protection considerations, and that environmental protection programmes contribute to improving the socio-economic lives of people. (NWMS, 2020)

Second-hand fashion & textiles falls under the category of restricted goods and importing these goods is not prohibited outright. But import is allowed only with the appropriate permits from International Trade Administration Commission of South Africa and from the South African Revenue Service. Besides this guidance on imports, there is no regulation for fashion & textile waste.

In their 2022 report, Jenkin and Hattingh recommend that the Extended Producer Responsibility (EPR) Scheme (South African Government, 2021) be extended to include the clothing and textile industry. (EPR currently applies to the packaging industry.) The South African Department of Environment, Forestry and Fisheries (2020) defines EPR as an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life.

Policy would support better management and understanding waste. The fashion & textile sector requires better data capturing to facilitate an efficient textile recycling system. Types of fabric and quantities of clothing need recording to enable the planning of collection, transport, storage and management of waste which should be reduced, re-used, recycled, recovered and finally, and as a last resort, disposed of responsibly.

GLOBAL SNAPSHOT OF WHAT HAPPENS WITH TEXTILE WASTE

Although data is almost non-existent, Bloomberg reports that globally "less than 0.5 percent of the global fibre market was from pre- and post-consumer recycled textiles". Wrap UK states on its website that only 1% of used textiles globally are recycled back into textile products.

In Sweden, approximately 20% of fashion & textiles waste is collected by charity organisations, 50% is sent to incineration plants in mixed waste streams (for energy recovery) and the remaining 30% is either stored in household closets or discarded at recycling centres (Palm et al. 2014 in Zamani, 2014).

According to WRAP, 212,630 tonnes of used fashion & textile were collected by about 140 signatories to the United Kingdom's Textile 2030 roadmap. It was distributed as such:

- 5% was disposed
- 10% sold as recovered material
- 53% was sent for direct reuse outside of the UK
- 32% remained in the UK for direct reuse

Another international reference is Canada where "only 22 percent of all textiles in the waste stream are available for recycling; the rest is good enough for the reuse and resell market or so contaminated that it cannot be recycled. This situation is different in the industrial stream, where we estimated that all materials require recycling" (Fashion Takes Action, 2021, 4).

TYPES OF TEXTILE RECYCLING

There are various textile recycling techniques, including both hi-tech and low-tech options, with new ones in development constantly. Recycling refers to the conversion of textile waste into something approximating the same value (a cotton T-shirt into another T-shirt), but is often used as the catch-all for all forms of recovery pathways. In theory, all textiles can be upcycled (turning fashion & textile waste into something of higher value) or downcycled (turning waste into something of lower value).

Fashion & textile waste can be mechanically or chemically recycled, but (fibre-to-fibre) textile-to-textile recycling is not available in South Africa and has limited applications globally.

Recycling is complicated exponentially by the prevalence of blended fabrics. While blends improve performance in use, clothing comfort, aftercare, the look of the fabric and production costs, they radically complicate recycling. In addition, most garments include different accessories, such as buttons or zippers, which are made of different materials, but also are not easily or effectively removable (for example studs, or sublimated prints, etc.).

Different process of recycling are generally categorised as:

Mechanical downcycling (low value)

Waste is disassembled into rags or cleaning clothes, or shredded. Tedesco and Montacchini (2020) explain that shredding is mainly a mechanical process that has not innovated over the last 200 years. Fibres are broken-down with carding machines; this ripping reduces the fibres' staple length and the fibres lose their strength and typical characteristics (Fletcher, 2008 in Tedesco and Montacchini, 2020).

This shredded textile waste can be used as stuffing in mattresses, coffins, blankets, carpet underlay, or disposable diapers (Bureau of International Recycling, 2013). This is downcycling and is commonly practiced in South Africa, for instance, by recyclers Brits and Connacher.

Mechanical fibre-to-fibre recycling (medium high value)

The shredded fibres can be re-spun into low-grade quality yarns. The textile waste is passed through a rotating drum and turned into fibres. Due to colour mixing and different fibre lengths, the quality of the fibres produced is low. It is feasible only for 100% cotton textiles, and needs to be recycled with virgin fibres (Biyada and Urbonavičius, 2025).

Chemical fibre-to-fibre recycling (high value)

To improve the quality (and increase its scope) of fibre-to-fibre recycling, textile waste can go through a chemical process which produces higher quality fibres and can be applied to cotton, synthetic fibres (polyester, nylon or polypropylene) and to blends of natural and synthetic fibres such as polycotton. (Palm et al. 2014 in Zarmani 7).

"There has been a bottleneck for scaling recycling—fibre-to-fibre processes that require specific purity standards, like 95% cotton, to function," says Anna Vilén, communication manager at Siptex, a Swedish sorting facility. For larger investments in recycling, a steady supply of raw materials is necessary.

Chemical fibre-to-fibre recycling should not be a priority in South Africa as it does not maximise job opportunities and, conventionally, it requires harmful chemicals to deconstruct some fibre types.

Upcycling

This involves converting discarded materials into something of equal or greater value. During an upcycling process, textile waste is transformed into resources for new products with greater economic and environmental value. South African designers Anita Hlazo of Afrogrunge and Khumo Morojele are increasing the value of discarded fashion & textiles.

PROCESSES OF RECYCLING

The steps towards textile recycling are:

- collect
- sort
- grade
- deliver used clothing to companies capable of recycling

Recycling companies often require specific textiles—such as cotton, viscose, or polyester—at a consistent quality, sorted in colours and in sufficient quantities to operate efficiently and meet fashion standards.

Sorting and grading remain the challenging aspects of fashion's resale and recycling initiatives.

CURRENT RECYCLING ACTIVITIES IN SOUTH AFRICA

South Africa's focus in the recycling field is mass-scale downcycling. There are some small and micro design businesses that upcycle and remake fashion, such as Sari for Change, LaaniRaani and Rethread. There is currently no circular textile-to-textile recycling in South Africa.

For a list of South African companies that use fashion & textile waste (see chapter on recycling innovators).

South African retailers are addressing the problem of post consumer waste. For example, V&A Waterfront's Zara concept store has take back bins and encourages customers to donate clothes they no longer wear to its charity partner, Red Cross South Africa.

H&M has installed take back bins in its South African stores. In return for their customers bringing their end-of-life clothing to the tackback bin, H&M gives consumer a voucher as an incentive. The fashion & textile that H&M collect is sent to Clothes to Good which uses it for its early childhood and disability programmes.

Local retailers including Pick 'n Pay and The Foschini Group have done similar takeback schemes too (industry interviews, 2021 and 2022).

The fashion & textiles that is not good enough for reuse, remake or upcycling, is downcycled.

Connacher uses this waste for the manufacturing of insulation which is used in blankets, construction and in the automotive industry. While there is skepticism that this downcycling is not a closed circular textile-to-textile solution, Biyada and Urbonavičius (2025) hold the position that this a great illustration of the design of a new circular economy model in which waste is repurposed to continue supporting human life in other ways. They say, "It is an extremely cost-effective and sustainable recycling process".

OPPORTUNITY FOR INNOVATION

More research is needed to explore additional, cleaner, innovative and sustainable strategies for textile waste, such as biological recycling. Ideas to explore are recycling textile waste for bioenergy, fermentation and using microorganisms to compost natural fibres for bio-fertilisers (Biyada and Urbonavičius, 2025).

Turning waste into clean energy is one of the most innovative approaches to the biological treatment of textile waste. Additionally, plastic waste could be recycled using the enzymatic activities of microorganisms (Biyada and Urbonavičius, 2025).

We see an opportunity here for more research and development into innovative ways to use fashion & textiles waste.

CAUTIONS

We have identified three areas to be cautious of when using recycling as a strategy to reduce fashion's impact:

1. While keeping resources in use for as long as possible (preferably eternally) through increased re-use, repair / repurposing and closed-loop recycling to reduce the impact



Disassembled jacket.
Photo: Erica de Greef

of emissions and waste (including toxic chemicals) on the environment and people, it is advised to take a life cycle approach to these actions. This should be used to ensure that any impacts from increased re-use, repair/repurposing and recycling of textiles, such as emissions from collection and transport and energy for machinery, do not exceed the emissions avoided by producing less fibre, fabric or textiles (Zamani, Sandin, and Peters, 2017).

2. Recycling within smaller, more contained systems tends to have greater environmental benefits than larger-scale recycling. According to the Ellen MacArthur Foundation (2017), turning old clothing directly back into fabric can eliminate the need for both raw materials and the energy-intensive steps of producing fibre, yarn, and fabric. In contrast, recycling back only to the fibre stage saves fewer resources, mainly just the raw material input. Therefore, when it comes to textiles with a high environmental footprint, recycling them back to fibre may offer minimal benefits—especially if the recycling process itself uses a lot of energy. That said, recycling cotton fabric back to fibre can still lead to a 17% reduction in water usage (Ellen MacArthur Foundation, 2017).

3. And finally, while reuse and recycling are ways to act sustainably, they can be used to justify continued consumption through inauthentic sustainability marketing. In some cases, they can be used to stimulate consumer demand, such as retail vouchers for new clothes in return for old clothes (Bocken et al., 2022, p.2).

INSPIRING FRAMEWORKS

CIRCULAR ECONOMY

The circular economy is widely believed to be the best alternative “to the conventional take-make-dispose linear model seen in much of the modern economy” (Ellen MacArthur Foundation, 2022 in Bocken et al. 2022). The concept is “based on the recycling of materials, slowing material resource loops through reuse and repair, optimising the shared use of assets, and natural ecosystem regeneration, with the objective of reducing demand for virgin materials, resource exploitation, environmental pollution, and wasteful landfill” (Bocken et al., p2).

The circular economy offers an opportunity, “to meet the needs of the present while safeguarding Earth's life-support system, on which the welfare of current and future generations depends” (Griggs et al., 2013, p. 306 in Bocken et al. 2022).

“It is anticipated that in the future, the “waste” sector will ultimately be referred to as the “materials” sector as products and services are increasingly designed to keep materials within the biological and technical cycles, thus designing waste out of the system”

Circular Economy
Guideline for the Waste
Sector, 2020

SUFFICIENCY-BASED ECONOMY: “ENOUGH, FOR EVERYONE, FOREVER”

Sufficiency means having “enough to live well” without pursuing unnecessary excess (Bocken et al., 2022). It focuses on meeting essential needs—food, energy, mobility, shelter—while valuing quality of life in work, learning, and leisure rather than chasing ever-expanding material wants (Niessen & Bocken, 2021 in Bocken et al., 2022). Building on this idea, the sufficiency-based circular economy argues that society must “make do with less,” even when products circulate efficiently (Bocken & Short, 2020; Godelnik, 2021). Consumption cannot grow indefinitely; instead, it should rise only where people’s basic needs are not yet met. In South Africa, for example, many still rely on low-cost fashion because they lack alternatives. Any increase in their consumption must be achieved without adding social or environmental harm, so that progress for people aligns with regenerating the planet (Hahn & Tampe, 2021). Practically, a sufficiency-oriented circular model places refuse, reduce, and rethink ahead of recycle: buy less, avoid impulse purchases, repair and maintain what already exists, and choose second-hand or refurbished goods whenever possible. Businesses and policy makers can reinforce these choices by making the upper tiers of this hierarchy the easiest, most affordable, and most attractive options for citizens (Bocken et al., 2022). Determining the exact threshold of “enough” is context-specific and culturally dependent, yet the principle is clear: meet everyone’s needs, minimise resource use, and ensure that any growth leaves both society and the environment better off than before.

THE DOUGHNUT ECONOMY

Kate Raworth's Doughnut Economics reframes prosperity as living within a "safe and just space" for humanity. In the diagram below, the inner ring marks the social foundation all people need—education, health, dignity—while the outer ring is the ecological ceiling we must not over-shoot. Between these two lies the doughnut itself, the sweet spot in which societies can thrive. Applied to fashion, the doughnut urges the industry to move beyond chasing GDP-driven growth and adopt seven practice principles: change the goal, see the big picture, nurture human nature, think in systems, be distributive, create to regenerate, and aim to thrive.

In practical terms, this means recognising fashion & textiles as part of a larger social-ecological web. Garment workers' wages (social foundation) and planetary boundaries on carbon, water, and biodiversity (ecological ceiling) must both be respected.

Being distributive calls for sharing value across the supply chain—paying living wages, promoting worker ownership, and guaranteeing fair access to sustainable materials. Creating to regenerate pushes brands to design products and supply networks that actively restore soils, waterways, and communities.

For excess and waste—fashion's most visible breaches of the doughnut—the remedy is to extend product life and close loops: long-lasting design, repair, reuse, remanufacture, and true textile-to-textile recycling (Niinimäki et al., 2020).

When brands adopt system thinking, refuse over-production, and prioritise circular services over sales volume, they steer fashion toward the doughnut's safe zone: a thriving industry that meets human needs without breaching planetary limits.



The Doughnut of social and planetary boundaries (2017)

CONCLUSION

This chapter has outlined the environmental, social, and economic dimensions of fashion and textile waste, both globally and in South Africa. It has shown that while recycling and reuse practices have measurable benefits—particularly in reducing landfill pressure and lowering emissions—reuse remains the most environmentally beneficial option. Yet, both require investment in infrastructure, data systems, and behavioural change.

For South Africa, a just and circular fashion and textile system must reflect local realities: high unemployment, entrenched inequality, limited recycling infrastructure, and a strong informal sector. Solutions must therefore be

inclusive, context-appropriate, and geared toward both planetary and human wellbeing. Policies like Extended Producer Responsibility and strategic support for upcycling and small-scale design innovation can accelerate change. However, it is not enough to reduce waste: we must also rethink our material relationships, reshape the systems that produce fashion, and redistribute value across the supply chain. Through steady, collaborative efforts — backed by public and private investment, cultural storytelling, and community participation — South Africa can chart a path toward a circular fashion economy that is regenerative, inclusive, and future-fit.



Beauty Mokgwamme of the South African Mohair Empowerment Trust speaks at the Africa Textile Talks 2024. Image: The Dollie House

SPOTLIGHT: LAANIRAANI

Former accountant turned designer Shamyra Moodley has won three awards: Design Indaba Class of 2023; TWYG Sustainable Fashion Award's Nicholas Coutts 2022 and the AFI Young Designer of the Year 2021. When she was selected as one of the six designers to join African Fashion International's 2020 year-long Fastrack programme, Shamyra was tasked to create three new looks in three weeks using existing clothes for a Johannesburg Fashion Week show.

Shamyra's label Laaniraani, which is stocked at Merchants on Long in Cape Town, is an eclectic, upcycled brand. Each garment is lovingly handmade in her home studio with reclaimed T-shirt yarn, vintage sarees and remnant fabric waste.

Through Laaniraani, Shamyra highlights her commitment to sustainability and zero-waste. The DIY cut-and-paste girl', 'tinker fairy', 'eclectic assortment' or 'Green Queen' are just some descriptors for Shamyra who regards fashion as a boundless, forever-changing playground.

“ People flip houses and well, I have been flipping clothes ever since I can remember. I flip clothes, give them new life and a new chapter so the story can continue. Sustainable, slow fashion and living has caught fire in the last decade while many people and communities, especially from the African continent have been living this way for centuries.
- Designer Shamyra Moodley

”



A model shows Laaniraani at a fashion event in Cape Town

UPCYCLING AND RECYCLING INNOVATORS

Recyclers and upcyclers of pre- and post-consumer fashion & textile waste

Brand/Business: Connacher Main contact person: Gary Erasmus Contact details: (+27) 31 736 1044 /admin@connacher.co.za Website: https://connacher.co.za/ Macro-scale - textile recycling	Connacher is a textile recycling company that collects clothing/textile factory waste and shreds the waste to create reusable fibre. The fibre, called flock/shoddy, is used for automotive lining, furniture padding, dog blankets, mattresses, and industrial materials. The company uses between 1200 - 1800 tonnes per year.
Brand/Business name: Brits Nonwoven Main contact person: Claudia Contact details: • KwaZulu Natal (Head Office): (+27) 31 710 7707 /kealindebruin@brits.co.za • Western Cape: (+27)21 577 1490 /claudias@brits.co.za • Gauteng: (+27) 11 979 1192/ jhb2@brits.co.za Website: https://www.brits.co.za/ Macro-scale - recycling	Brits Nonwoven is a nonwoven producer for a variety of companies. 100 to 150 tonnes of textile products and second-hand clothing is recycled and transformed for the automotive industry and blankets, filtration, insulation, flooring and other furnishing products. The company recycles post-consumer textiles as well as PET.
Brand/Business name: Taking Care of Business Main contact person: Tracey Gilmore Contact details: traceygilmore@tcb.org.za and 021 531 2134 Website: https://www.tcb.org.za/ Macro-scale - recycling, upcycling and reusing	TCB offers retailers, wholesalers and manufacturers a national, cost-effective solution to their merchandise and e-waste problems. They receive, remake and resell around 150 000 items of clothing, homeware and shoes per month, which previously unemployed people can resell to their communities. Damaged items are repaired by workers, equipping them with design and sewing skills.
Brand/Business: Clothes to Good Main contact person: Jesse Naidoo Contact details: (+27)74 242 7414/Jesse@c2cx.co.za Website: https://clothestogood.com/ Macro-scale - recycling	Clothes To Good recycles 20 tonnes of post-consumer clothing waste per week, creating microbusiness opportunities, employment, and job readiness for people with disabilities. Materials are sourced through retailers and manufacturers. They recycle these materials by transforming them into Early Childhood Development toys, that include educational activities and other resources, as well as homeware products.
Brand/Business name: Green Degree Main contact person: Anne/Cheryl Contact details: anne@greendegree.org and cheryl@greendegree.org Website: https://www.greendegree.org/ Medium-scale	The profits from selling second-hand garments are used to make pencil cases from waste to give to under-resourced schools. The materials used to make cases are organic, natural and sourced locally. Their goal is to use as much waste fabric as possible by utilising the worn-out pieces of fabric to make pencil cases, tassels, buttons and using the scraps for stuffing.

SPOTLIGHT: CLOTHES TO GOOD

Clothes to Good is a textile recycling centre and empowerment initiative that was founded by Jesse Naidoo. The initiative aims to build an inclusive, green and circular ecosystem by diverting waste from landfills and using it as an asset to change the lives of marginalised communities. Over the past decade, the enterprise has collected textile waste from various sources including high-resourced schools, directly from brands' end-of-sale stock and factory waste, and from in-store take-back schemes such as those we see at H&M stores. From the collected waste, the enterprise has recycled over 580 tons of clothing, facilitated 108 micro-businesses and has supported 100 early childhood centres. The organisation has also empowered disability centres and has provided meaningful work for women-run micro-businesses. Clothes to Good was awarded the audience prize at the Tommy Hilfiger World Frontier Fashion challenge. It was shortlisted as one of the top six programmes from 430 applications from around the world.

“

We look at waste as an asset that can help change the lives of people. We ask what we can do with it and who can we empower.

”

- Tammy Greyling, operations manager



Two Clothes to Good employees collect and sort fashion & textile waste in Centurius, Gauteng

Brand/Business name: ZeroCrete Main contact person: Johan Coetzee and Gerhard Deyssel Contact details: (+27) 83 261 8778/johan@wodc.co.za and (+27) 61 588 0029/gerhard@wodc.co.za Website: https://zerocrete.co.za/ Medium-scale	Zerocrete is a sustainable design company that focuses on creating furniture and art pieces using a combination of waste, cement and cement replacement fabrics. They specialise in industrial, plastic and textile waste use that is sourced from the industrial sector. The team combines creativity and sustainability to consciously furnish and decorate homes and businesses.
Brand/Business name: Upcycle Main contact person: Winnie McHenry Contact details: (+27) 82 780 3673/winnie@upcycle.co.za and (+27) 82 855 2236/mark@upcycle.co.za Website: https://upcycle.co.za/ Medium-scale	Upcycle is an initiative that empowers individuals, communities and corporate companies to reduce their impacts and create economic opportunities by transforming their waste into valuable products through up-cycling. They specialise in billboard PVC vinyl, fabric, display, glass, paper and other obsolete waste.
Brand/Business name: Viviers Studio Main contact person: Contact details: (+27) <u>65 617 6659</u>/info@viviers.studio Website: https://viviersstudio.com/ Medium-scale	Viviers is a South African luxury fashion that combines artistry with conscious craft to create sustainable, wearable art garments. The brand collaborates with local artisans and producers for materials. At Viviers, minimising textile waste is important as they actively repurpose fabrics and materials.
Brand/Business name: Rethread Main contact person: Alexa Schempers Contact details: (+27) 67 304 9804 /hello@rethread.store Website: https://rethread.store/ Small-scale	Cape Town-based sustainable clothing brand, Rethread, sells upcycled, sustainably made and second-hand garments. The brand primarily focuses on developing innovative ways to reduce waste in the fashion industry by using what is already in circulation through upcycling. Rethread also produces a small collection of garments which are all produced locally and in small runs to reduce waste & dead stock.
Brand/Business name: Rebirth SA Main contact person: Jasmine Davids Contact details: connect@rebirth.sa Website: https://rebirth.sa/ Small-scale	Rebirth is a sustainable brand, that upcycles fashion & textile waste. They produce close to 30-50 upcycled products monthly, which are 100% denim and cotton garments made from thrifted, donated jeans. Rebirth uses 100% recycled paper/newspaper for pattern making and 40% reusable trims from preloved/donated garments, such as buttons and zips.
Brand/Business name: Studio Candor Main contact person: Noah Kaplan/Marcus Zimmerman Contact details: (+27) 72 259 4544 /Support@studiocandor.co.za Website: https://studiocandor.com/ Small-scale	The brand commits to slow fashion and promotes a circular economy. They exclusively create using deadstock materials and repurpose their leftover fabrics for smaller upcycling projects. They also promote other thrift stores and apparel in their Observatory, Cape Town, store and host small businesses at their Candor Market in Rondebosch.

SPOTLIGHT: EMFULENI SECONDHAND

In Mfuleni, SA, there is a growing number of secondhand clothing resellers and vintage stores in South Africa that contribute significantly to a thriving circular textile economy. Twyg spoke to Nonnie Diwu, Shirley Beja, Tabisa Ndandani, and Themebikile Solontsi are four traders who sell preloved clothes in Mfuleni as a way of creating a livelihood, allowing them to provide for their families. These vendors are extending the life cycle of garments and playing their part in doing what's best for the planet.

1. Shirley sources her stock from flea markets and car boots as well as from emigrating families who sell their belongings on social media.
2. Tabisa has been in the business of selling secondhand clothes for a decade. In 2019, she joined The Clothing Bank's social upliftment and entrepreneurship programme and has been sourcing clothing from there ever since.
3. Themebikile sells clothing that he gets for free from people or he does chores in exchange for clothing. Despite it not being an ideal job for a young man like himself, he says that it least is puts bread on the table.
4. Nonnie is a trader who buys quality secondhand clothing in pre-packed bales from Canada and sells them at a good price.



Tabisa Ndandani at her stall in Mfuleni

Brand/Business name: Upswing SA Main contact person: Ayisha and Fatima Contact details: (+27) 76 953 4195 /theupswingsa@gmail.com Website: https://upswingsa.com Small-scale	Upswing SA collects 20-40 kgs of unwanted goods at their Rondebosch East premises, monthly. They sort and sell items through their shops on Yaga, Facebook, and WhatsApp. Unsold clothing is repurposed into products like fabric braided rugs, bags from upholstery, pillows and peg bags from off-cuts, door stoppers, shopping bags from draping and curtains from an events company, and baskets mostly from cotton knit fabrics.
Brand/Business name: Patch and Stitch SA Main contact person: Collen Shoko Contact details: (+27) 79 784 7256/ /patchandstitchsa@gmail.com Website: https://www.instagram.com/patchandstitchsa Small-scale	Patch and Stitch SA is a Daveyton, Johannesburg repair shop. They have been offering their community services that help extend clothing's lifespan, save money and reduce clothing waste - everything from garment dyeing to repairs and alterations. They are currently upcycling about 30 to 50 garments a month
Brand/Business name: Nolusizo Weavers Main contact person: Colette Tillery Contact details: nolusizo.weavers@gmail.com Website: https://mohairmagic.org Small-scale	Nolusizo Weavers is a group of ten women based in Wesley Village, Eastern Cape, who hand weave beautiful mohair carpets from mohair factory waste. Part of the Weavers Project, they recycle around 50 kilograms of mohair off-cuts and blanket selvage every month, obtained from one of the largest mohair fabric producers in the world – based in Uitenhage, Eastern Cape.
Brand/Business: Rosa Handmade in SA Main contact person: Makhosazane Sekgwama Contact details: (+27) 77 656 8237 /rosahandmadeinsa@gmail.com Website: https://www.instagram.com/rosahandmadeinsa/?hl=en Small-scale	Rosa Handmade specialises in crochet home-ware that is handmade from recycled cotton. Makhosazane Sekgwama uses sustainable recycled materials sourced from the local factories that make T-shirts and garments of similar cotton. They use around 300 T-shirts worth of fabric material off cuts to make baskets, bags, mats etc.
Brand/Business name: Sintra Studio Main contact person: Sinead De Haast Contact details: (+27) 73 008 6855 /sintrastudiosa@gmail.com Website: https://www.sintra.co.za/	Sintra Studio is a sustainable clothing brand that commits to upcycling discarded textiles. Sinead transforms bull denim, upholstery fabrics, sherpa and cotton materials into garments such as patchwork jackets. Curtains, tablecloths and pillowcases are sourced from thrift stores and hospices to use. She uses about three bags a month of dropped off unwanted fabrics and old denims from her Stellenbosch studio.

SPOTLIGHT: *RETHREAD*

Alexa Schempers, founder of the Rethread fashion brand, uses waste to create unique and sustainable garments. Rethread focuses on selling three categories of clothing: redesigned (upcycled), sustainably-made (new garments), and pre-loved garments. This local brand has been growing from strength to strength and leading by example when it comes to creating clothing that goes against the fast fashion status quo. Rethread's recently released fourth collection represents their growth as a brand and essentially manifests their business ethos.

“

We see waste as an opportunity. Not just an opportunity to create beautiful things, but an opportunity to solve problems that could contribute to saving our planet and our industry.

- Alexa Schempers,
creative director

”



Models in Rethread garments designed by Alexa Schempers

SECOND-HAND AND CHARITY STORES

Brand/Business name: Vintage With Love Contact details: info@vintagewithlove.co.za Website: https://www.vintagewithlove.co.za	Cape Town: 46A Canterbury Street, Zonnebloem Joburg: 102 Corlett Drive, Melrose
Brand/Business name: Vintage And The City Contact details: (+27) 62 246 3552 Website: https://vintageandthecity.co.za	Cape Town: 373 Albert Rd, Woodstock
Brand/Business name: Drip Boulevard Contact details: (+27) 73 674 9509 and thedripboulevard@gmail.com Website: https://thedripboulevard.co.za/	Joburg: 155 Smit St, Braamfontein
Brand/Business name: Daddy Cool Clothing Contact details: (+27) 81 432 6979 Website: https://daddycoolclothing.co.za/	Centurion: 1289 Heuwel Rd, Zwartkop
Brand/Business name: Studio Candor Contact details: (+27) 72 259 4544 /Support@studiocandor.co.za Website: https://studiocandor.com/	Cape Town: 2 Scott Rd, Observatory
Brand/Business name: The Greendale House Contact details: • Orange Grove: (+27) 11 728 1052 /marlvine.ndlovu@greendalehouse.co.za • Parkmore: (+27) 11 883 7242 /parkmore@greendalehouse.co.za • Kensington: (+27) 10 510 2073 /kensington@greendalehouse.co.za • Norwood: (+27) 10 510 2053 /norwood@greendalehouse.co.za Website: https://greendalehouse.co.za/	Joburg: 199 Louis Botha Ave, Orange Grove; 163 Queen St, South Kensington; Shop 1, 77 Grant Avenue Norwood Sandton: CNR 11th Street and Elizabeth Avenue, Benmore
Brand/Business name: Help The Rural Child Contact details: (+27) 20 685 2810 /operations@ruralchild.org.za Website: https://ruralchild.org.za/	Cape Town: 39 Adderley Street, Cape Town; 71 Imam Haron Road, Claremont; 254 Main Road, Kirstenhof; 6 Victoria Road, Mowbray; Retreat Mall, Station Road, Retreat; 369 Main Road, Sea Point

SPOTLIGHT: SARI FOR CHANGE

Sari for Change is a brand that focuses on repurposing saris and making new modern clothing while maintaining the integrity of the traditional piece. Sari fabric is a renowned symbol of South Asian culture. It is a timeless piece, rich with Indian history and is a staple among Indian women. Rayana Edwards, owner of Sari for Change, is interested in why people purchase clothes and the personal connection people have with clothes. Rayana realised that the sari could be used as a starting point to create an array of one-of-a-kind garments, breathing new life to these culturally rich pieces, from wrap dresses to pyjama suits. But Sari for Change is more than just about upcycling textile waste. The organisation's training hubs offer women education and training to provide them with skills for employment. With an unemployment rate of 33%, South African joblessness is at an all-time high (StatsSA, 2025). Sari for Change provides skill development to uplift communities by equipping them with the necessary skills to earn for themselves.

“

I am not selling a product, that's an aside. I am providing a service in training future entrepreneurs in business skills and needlecraft to create their own employment. They either become entrepreneurs, sole proprietors, or suppliers of skills, or distributors. I am selling consciousness, connectivity and continuity.

- Founder, Rayana Edwards

”



A model wears a recycled sari by Sari for Change

SECOND-HAND AND CHARITY STORES

Brand/Business name: U-turn Homeless Ministries Contact details: • Claremont: (+27) 21 300 5070 • Muizenberg: (+27) 21 300 4202 • Strand: (+27) 74 785 9979 • The Hope Exchange Centre: (+27) 21 461 5508 • Johannesburg: (+27) 10 900 0871 • Tshepo: (+27) 10 900 0871 • Pretoria: (+27) 82 556 5591 Website: https://homeless.org.za/	Cape Town: c/o Hawthorne Rd and Claremont Boulevard (27 Stegman Rd), Claremont; Killarney Road, Muizenberg; 14A Roeland Street, District Six, Cape Town, Strand: 28 Michau Street, Strand, Joburg: Christ Church Blairgowrie, 32 Gordon Ave, Blairgowrie Pretoria: 80 Bosman Street, Pretoria Central, Pretoria, Tshepo Community: Cnr Pendoring & Weltevreden Road, Northcliff
Brand/Business name: TEARS Contact details: (+27) 21 785 4482 /tears@tears.org.za Website: https://tears.org.za	Cape Town: Sunny Acres Shopping Centre Kommetjie Road, Sunnysdale; Corner of Recreation Road and Main Road, Fish Hoek; Vallyland Centre, Fish Hoek; 281 Main Road, Retreat
Brand/Business name: Oasis Contact details: (+27) 21 671 2698 /info@oasis.org.za Website: https://www.oasis.org.za	Cape Town: Imam Haron Rd, Claremont; 4, Somerset House, 6 Recreation Road, Fish Hoek; 16th Street & 8th Avenue, Elsies River
Brand/Business name: Queensburg Cheshire Homes Charity Shop Contact details: (+27) 31 708 4747 /gburgcheshire@gmail.com Website: https://www.cheshirehomequeensburgh.co.za/	Durban: 890 Main Rd, Moseley, Pinetown
Brand/Business name: St Giles Contact details: (+27) 31 337 4404 /info@saintgiles.org.za Website: https://www.saintgiles.org.za/	Durban: 4 Prince St, Point
Brand/Business name: Kloof SPCA Contact details: (+27) 31 764 1212/3 /reception@kloofspca.co.za Website: https://www.kloofspca.co.za/	Durban: 29 Village Rd, Kloof; Maytime Ctr 15 Charles Way; Mushroom Farm, 450 Kassier Rd., Assagay; Elangeni Ctr, 9 Inanda Road, Hillcrest

SPOTLIGHT: 3 CAPE TOWN TAILORS

Fashion tailors play an imperative role in our fashion ecosystem as they increase the longevity of our clothing, reducing the negative impact on the environment. Three tailors - Jafali (Jerry) Unyolo, James Lebwele and Chumani Beja - living in two different townships in Cape Town, Khayelitsha and Mfuleni, have been earning a living through refashioning, restyling, and reviving clothes.

Jafali (Jerry) Unyolo launched his business as a tailor in 2019 in Khayelitsha. Jerry is not just an ordinary tailor who mends and alters garments. He can bring any image of a garment to life. He found his love for fashion at a young age and learnt how to sew at a market near his home.

James Lebwele opened his business as a tailor and designer in 2019 in Khayelitsha, making everything from school uniforms to church gowns to tracksuits. He believes that his work involves more than just making clothing. It is about “giving someone the confidence to stand out.”

Chumani Beja has a business in Mfuleni where she makes garments to sell. Chumani challenges conventional norms when it comes to what ‘curvy girls’ can and cannot wear by making them feel comfortable in their own skin. She adapts her approach to each project, depending on what the customer wants and which materials they prefer.

Jafali (Jerry) Unyolo in his studio in Khayelitsha



SECOND-HAND AND CHARITY STORES

Brand/Business name: Wagtails Charity Shop Contact details: (+27) 60 518 0149 /wagtails@awspe.co.za Website: https://awspe.co.za/	Gqeberha: Corner of 6th Avenue & Albert Road, Walmer
Brand/Business name: Ability Shoppe Contact details: (+27) 41 373 3151 Website: https://www.charitysa.co.za/	Gqeberha: 82 Cape Road, Mill Park,
Brand/Business name: St Francis Hospice Contact details: • Newton Park Shop: (+27) 41 364 1970 • Hospice Lane Shop: (+27) 41 360 7070 • Jeffreys bay Shop: (+27) 76 561 7974 Website: https://hospice-pe.co.za/	Gqeberha: 63, 4TH Avenue, Newton Park; Malvern House, Hospice Lane, off Warbler Street, Taybank (Cotswold) Jeffereys bay: Shop 19, Neptunes Terrace, Da Gama Road
Brand/Business name: Ons Winkel Contact details: (+27) 12 111 8360 /diens@helpendehand.co.za Website: https://helpendehand.co.za/	Nationwide
Brand/Business name: The Backroom Preloved Contact details: (+27) 79 177 3778 and thebackroompe@gmail.com Website: https://thebackroompreloved.co.za/	Gqeberha: 62 Main Road Walmer, Port Elizabeth
Brand/Business name: Yaga Contact details: support@yaga.co.za Website: https://www.yaga.co.za	App and Website

SPOTLIGHT: *TAKING CARE OF BUSINESS*

Taking Care of Business, formerly The Clothing Bank (TCB), is a multi-award winning social enterprise that was founded by Tracey Chambers and Tracey Gilmore. The organisation offers income-generating opportunities, a two-year training programme and nurturing environments for women on this programme. Since its launch ten years ago, TCB has revived 10 million items of clothing waste (worth R600 million), touched the lives of more than three 000 previously unemployed mothers and over 200 men. The TCB acknowledges the massive amounts of waste produced by the fashion & textile industry as well as the fact that many children are raised in single parent households and works at the intersection of these two issues.

“

The women are recruited for our two-year business, finance, computer and life skills programme to equip them with the skills they need to manage and sustain their micro-enterprises. Our vision is to support, skill and inspire unemployed South Africans to eradicate poverty in their lives.- co-founder, Tracey Gilmore

”



Women are the main beneficiaries of the Taking Care of Business second-hand clothing programmes

SECOND-HAND AND CHARITY STORES

Brand/Business name: Wisi Oi Contact details: (+27) 71 555 2563 /emailus@wisioi.com Website: https://wisioi.com/	App and website
Brand/Business name: Used 2 Be Yours Contact details: (+27) 76 120 1859 /used2beyoursthifting@gmail.com Website: https://bythrifting.com	App and website

SPOTLIGHT: TWYG SWAP & MEND

Twyg's regular Swap&Mend events promote a culture of slow fashion by inviting our growing community to swap and mend their clothes, keep garments in circulation and reduce waste. Participants bring up to 10 clean, good-condition clothes to exchange for an equal number of garments brought by other swappers. They also bring items that need fixing and join the ongoing, gently guided mending circle.



Participants in the Twyg Swap & Mends not only swap pre-loved clothes, they also share skills and mend clothes. Image: [A Gorman Photography](#)

SPOTLIGHT: VINTAGE WITH LOVE

Vintage of Love collects gently worn clothing with their growing tribe of supporters. Vintage of Love enlist volunteers to sort the donated clothing and to ensure a sale of quality fashion and sell the clothing either at their stores, pop up sales or online. All the money raised is donated to literacy charity organisations. Vintage with Love was launched in 2013 by founders Leigh Ord and Jacquie Myburgh Chemaly and soon after, Debbie Smuts joined the team. The charities they support include: The Link, Community Assisted Schools, Realema Teacher Intern Programme, Kidz 2 Kidz, Uphawu Community Development Initiative, Partners for Possibility, Chic Mamas, Little Artists, Shine and Project Playground.

“

It's hard to say how many clothes we receive or have received over the years. But at our biggest sales we have had well over 3000 garments on the floor. And that isn't counting shoes and bags and accessories! We've moved many thousands of clothes through the Vintage with Love system!

”

- co-founder,
Jacquie Myburgh Chemaly



The Vintage with Love team at a pop sales

RECOMMENDATIONS

The recommendations and key insights are:

1. What the industry needs to do

- Collaborate
- Gather a full understanding of the volume of fashion & textiles in circulation, and how industry stakeholders manage their fashion & textiles waste
- Create local, provincial and national textile diversion working groups that foster a zero waste, low carbon circular textile economy, with multiple stakeholders across the value chain
- Support the establishment of end producer responsibly initiatives
- Create an ecosystem of structures, networks and partners, etc. for post-production and new production material recovery and recycling

2. What designers can do

- Designers must adopt a circular approach to design: clothes must be durable or suitable for resale, repair, or repurposing into alternative textile products
- Design-for-recycling: products should ideally be 100% pure (not blended), contain only polymers, chemicals, additives, dyes, and finishes that do not contaminate the recycling system, and are easy to disassemble (e.g., removal of buttons, zippers)
- Encourage the use of reclaimed textiles and fibres: through procurement and tax/duty incentives for products made from recycled fibres
- Find industries in their eco-systems that can provide them with used fashion & textiles
- Designers can educate their consumers and clients

3. What educators and researchers can do

- Educate consumers about care, reuse and repair and related circular business models
- Ensure teachers and students understand what circularity is and why it is important
- Share resources and toolkits about where to donate and what to donate to which outlet
- Develop skills and do training for new green circular fashion & textiles jobs

4. What researchers can do

- Conduct further research on repair, refurbish, materials and upcycling
- Conduct research on best recycling options for our local contexts
- Research and development must also be advanced on the technical aspects of sustainable textiles production and technological processes for textile sorting, separation, and recycling.

5. What journalists can do

- Help change perceptions and shift mindsets about circular fashion & textiles
- Encourage repair and reuse
- Share news of upcyclers and recyclers
- Destigmatise second-hand clothing
- Report on facts about quantities and numbers of clothes and waste produced and quantities recycled

6. What business can do

- Take responsibility for the end-of-life fashion & textiles
- Highlight and share the successful industry business case studies (sustainable business is good business)

- Share knowledge through summits, seminars and reporting
- Invest in systemic change
- Understand local markets and local needs
- Circular economy relies on strong partners and networks. Actively build these
- Commit to circularity through material choices, design, fair work and an extended producer responsibility scheme
- Help stimulate circular job creation. Create markets and access to markets for upcycled and recycled fashion & textiles
- Be transparent about volumes of clothes produced and pre-consumer and post-consumer waste and methods of disposal
- Support and invest in mechanical recycling pilots and training workshops
- Fund research in circularity and social justice
- Encourage take-back systems, curb-side collection programmes, donation bins, drop-off centres, and collection, sorting and diversion programmes
- Factor in the cost of end-of-use management of fashion & textiles produced and sold

7. What government (and policy) can do

- Recognise that policy is required to help shape consumer and producer behaviour, and change systems. Develop and enforce policy
- Signal to industry and consumer government's commitment to a transition from a linear to a circular economy
- Formulate policies for eco and preferred material choices, eco-design, waste management, export and import of second hand clothing, use of chemicals, burning and recycling goals
- Local, provincial and national government create textile waste management systems
- Facilitate material recovery
- Support circular eco-systems by creating linkages between the solutions and role-players
- Include circularity in education circular
- Support innovation for recycling, product design
- Support local, small and informal collectors, sorters and recyclers
- Create a conducive environment for more thrift stores and charities, drop-off centres, curb-side collection programmes, donation bins, and retail store take-back programmes, etc
- Fund research in circularity and social justice
- Hold brands and manufacturers responsible for what they sell
- Hold brands and manufacturers responsible for end-of-use fashion & textile waste
- Tax import of fashion & textiles that can not be recycled in Cape Town (or South Africa)
- Limit or ban export of fashion & textile waste and second hand clothing (this can be considered dumping)
- Support and invest in mechanical recycling pilots and training workshop

8. What recyclers can do

- Support the maintenance of directory of existing recycling and upcycling solutions
- Establish sorting standards
- Promote ways for consumers to understand their work
- Make the argument to be paid to collect, sort and recycle fashion & textile waste

9. What consumers can do

- Pay when 'donating fashion and textile waste' to recyclers and upcyclers
- Support green initiatives
- Shop more consciously and support

Final comments

The findings of The Refashion Lab Report affirm a critical and urgent opportunity: the need to invest in and support Cape Town (and South Africa's) emerging and diverse circular fashion & textile ecosystem. While many global North solutions to fashion waste are increasingly sophisticated, this report shows that locally grounded approaches, ones that draw on South Africa's unique social, economic, and environmental contexts, are both necessary and viable. We have found that significant volumes of textile waste, if intercepted before landfill, can become resources for new jobs, small businesses, and creative innovation. However, these possibilities remain largely untapped due to systemic gaps in funding, infrastructure, and policy.

Small, micro and medium enterprises (SMMEs), community-based organisations, and informal sector initiatives are already actively engaging with fashion & textile waste in diverse and impactful ways. These actors — often under-resourced yet highly skilled — represent the backbone of South Africa's local circular economy. They collect, sort, repair, remake, resell, and repurpose discarded fashion & textiles, often using simple tools and deep contextual knowledge. With better access to support including funding, training, physical infrastructure, and policy frameworks, these local players could scale their efforts significantly, leading to meaningful job creation and livelihood opportunities across the value chain.

The circular economy is not just an environmental solution. It is a development strategy. Recycling, repair culture, and upcycling are labour-intensive practices that hold the potential to create green jobs in a country with persistently high unemployment. Based on the pilot diversion project in this study, we identified at least 42 distinct job types that could emerge through better coordination, infrastructure, and training. These include roles in collection, sorting, repairing, disassembly, resale, communication, and design. Many of these jobs can be filled by young people and women, offering dignified, low-barrier pathways to employment and entrepreneurship.

The research also reveals the need to build supportive policy environments. Extended Producer Responsibility (EPR) frameworks, for example, must be expanded to include fashion & textiles and designed with small actors in mind. Municipalities must develop clear guidelines and pilot programs to redirect fashion waste from landfill. And both public and private funders must recognise textile waste management as a vital form of climate mitigation and economic development.

Ultimately, what's needed is an ecosystemic approach: one that aligns policy, business, education, and community action around shared goals. The Refashion Lab advocates for the creation of localised collection and sorting hubs, training and repair centres, and innovation spaces that connect designers, recyclers, and resellers. These spaces must be adequately funded and embedded in communities.

By centring local knowledge, grassroots innovation, and the people already doing the work, South Africa has the opportunity to build a circular fashion economy that is not only sustainable but regenerative and just. This is how we move from extraction to care, and from exclusion to opportunity.

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