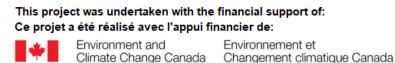
Reduce, Reuse, Rewear

Highlights of the textile secondary market in Canada

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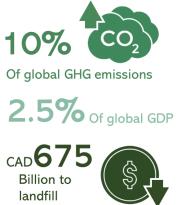
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Textile Waste – A Growing Challenge

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The existing economic paradigm, reinforcing the pattern of extracting, producing, consuming, and discarding has pushed the planet's resources and systems to the edge of collapse. Resource scarcity, economic turmoil, ramping inequality, and rising temperatures due to human-made climate change are some symptoms of this system. Few industries exemplify this consumption pattern as clearly as the fashion and textile sectors, responsible for around 10% of global greenhouse gas (GHG) emissions (1), while representing close to 2.5% of the world's GDP ⁽²⁾. Additionally, as recycling rates of textiles globally sit around just 12% (3), it is estimated that globally, the textiles lost annually to landfill and incineration are valued at CAD 675 billion (USD 500 billion) ⁽⁴⁾. Consequently, the textiles sector continues to rely on nonrenewable virgin feedstock.

In addition to the carbon impact of textiles, natural fiber raw materials such as cotton require large quantities of land, water, fertilizers, and pesticides; And synthetic fossil fuel based materials such as polyester can discharge thousands of tons of microplastics and pollute waterways ⁽⁵⁾. As an industry, textile production contributes to 20% of industrial water waste ⁽⁶⁾. The problem is exacerbated by recent trends, such as fast fashion companies that sell poor-guality pieces produced in hazardous factories by lowwage workers ⁽⁷⁾; or ultra-convenient e-commerce companies, which promise next-day delivery and free returns through an inefficient last-mile logistic network (8).



In Canada, the apparel market was valued at CAD 26.4 billion in 2021 and is set to grow past CAD 28 billion by 2024 ⁽⁹⁾. Household spending surveys conducted by Statistics Canada show that in 2019, a typical Canadian household spends on average CAD 3,344 per year on apparel and accessories, and CAD1,124 on household furnishings ⁽¹⁰⁾. Regarding GHG emissions, the country continues its efforts with the Net-Zero by 2050 plan, which includes a 2030 target representing a reduction from a projected 815 MtCO2e to 511 MtCO2e (a 37% reduction across the economy) (11). This means all sectors need to find ways to reduce their negative environmental impact and contribute to the GHG target, and the Circular Economy forms a key part of the response for the textiles industry.



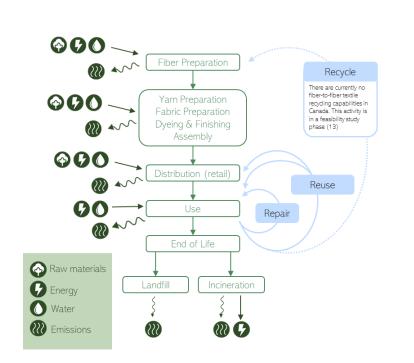
The current linear paradigm in the textile industry has led to adverse environmental impacts and economic inefficiencies. The Circular Economy provides a framework for making the most out of textiles before disposing of them while minimizing both upstream and downstream negative effects. Canada has a mature second-hand textile market strongly driven by charities. There are opportunities for scaling and leveraging those capabilities in an environmentally friendly and profitable way.

The Case for Thrift and Reuse

Page | 4 The Circular Economy is a model of production and consumption based on the principles of 1) eliminating waste and pollution, 2) circulating existing materials and products at the highest value for as long as possible, and ultimately, 3) regenerate nature where possible. It has risen in recent years as a path for transitioning to a low-carbon economy, where economic prosperity and social wellbeing are decoupled from adverse environmental impacts.

> Keeping products in use and valuable for longer through Value Retention Processes, as depicted below, is a powerful lever for the textile sector to reduce resource extraction, carbon emissions and other environmental impacts throughout the product life cycle. Three Value Retention Processes are particularly relevant for textiles: Repair, Reuse (including apparel Rewear and other textiles Reuse), and Recycle. Repair of textiles is still a nascent trend in Canada with limited scale and impact. Recycling, on the other hand, requires high capital investment in specialized infrastructure which can take years ⁽¹²⁾. It is therefore in Reuse where the greatest short- and medium-term potential lies for the textile industry to mitigate its impacts.

> Within the textile industry, charitable organizations like The Salvation Army have been facilitating textile Reuse for over a century. More recently, there has been a boom of initiatives, organizations and business models aimed at extending the life of garments and growing secondary markets for used textiles. Together, charities and emerging social enterprise actors in the textile Reuse ecosystem provide channels to divert wearable or reusable textiles from landfills or incinerators, tackling the adverse effects that this represents.



Typical Textile Value Chain and Circular Economy Approach

Value Retention Processes (VRPs) in textiles

Repair: This is the operation by which a faulty or broken product or component is returned to a usable state.

Reuse: Consists in using the same garment without modifications after it has been previously owned and used. In the context of this whitepaper, it can be done through a retailer (charity or for-profit) or direct to consumer (peer to peer).

Recycle: Transform an item to become an input for producing another one. Usually requires an industrial process, and can be of two kinds:

- Closed loop: The materials are used for producing a similar item to the original
 Open loop: The materials are used to
- produce a different type of item from the original

Downcycle: Using the product or its components to produce a different product with lesser or simpler attributes.

In addition to mitigating downstream impact, Reuse could also partially displace consumption, and the associated upstream impact, of new textile products. A study by the Ellen Macarthur Foundation and McKinsey indicates that, if the current consumption trends continue, the negative impacts of the textile industry would increase drastically by the middle of the century. Specifically, the use of non-renewable virgin feedstock – including fossil fuels for producing synthetic fibers, fertilizers, and process chemicals – would increase from 98 million tonnes in 2015 to 300 million by 2050, and the industry's share of carbon emissions for a conservative global warming scenario would jump from 2% to 26% in the same period ⁽⁴⁾. In a shorter timeframe, the textiles industry's effects on pollution indicators and climate change impact are

set to increase by almost 50% from 2016 to 2030 ⁽¹⁴⁾. Growing Reuse and secondary markets alongside fundamental shifts in consumer mindset and business models are essential to counteracting this trend.

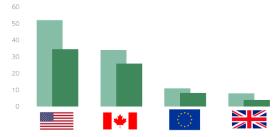
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There is a variety of business models for textile Reuse, but charity-operated resale is the one with the most impact and reach. Additionally, there is a high motivation for Canadian citizens by making a difference, and helping the less fortunate through donations to charities ⁽¹⁵⁾.

The Canadian Landscape

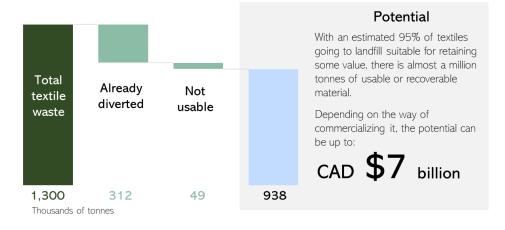
Impacts of the apparel industry are a global reality, but each country's infrastructure, culture and policy make the situation very specific. Looking at the main western economies in terms of textile waste generation, there are notable differences between Europe and North America. While a Briton generates around 8 kg of textile waste per year ⁽¹⁶⁾, an EU citizen sits at 11 kg ⁽¹⁷⁾, in contrast to this side of the Atlantic, the figures are 37 kg for Canada ⁽¹⁸⁾ and 52 kg for the US ⁽¹⁹⁾.

Per capita textile waste generation (kg per year) Per capita textile waste to landfill (kg per year)



Textile Reuse channels and the corresponding data

management are fragmented across Canada. Still, existing evidence suggest that textile Reuse represents a significant missed opportunity for Canada. A recent study commissioned by Environment and Climate Change Canada (ECCC) ⁽²⁰⁾ estimates that of the 1.3 million tonnes of used/waste apparel generated in Canada each year, only 24% is being diverted to Reuse/downcycling, while the remaining 76% is being sent to landfill, amount to almost one million tonnes each year. A significant portion of this waste stream is presumably imported products, as imports accounted for almost 80% of the Canadian textiles market according to 2015 data ⁽²¹⁾. Additionally, up to 95% of the textile waste that ends up in landfill have the potential for Reuse or processing for its material value ⁽²⁰⁾, representing a potential economic benefit of up to CAD \$7 billion¹.

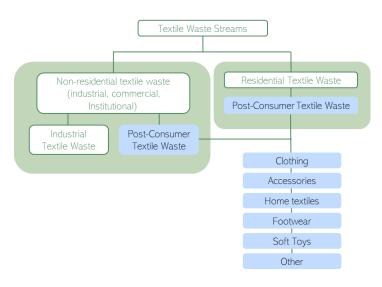


There is a significant missed opportunity for Canada in reducing textile waste and diverting them from landfill through secondary markets to keep textile products at the highest value possible.

¹ Assuming an upper limit extrapolating current Reuse market value.

Post-Consumer Textiles Value Chain

Post-consumer textiles refer to all pre-owned textile excluding commercial and industrial waste, with Page | 6 collection different paths to reprocessing and recycling. It appears that the existing market is mostly run by charities, with measurements yet to be quantified. It's noteworthy that of the textiles collected by charities they are able to divert 95% from landfill.

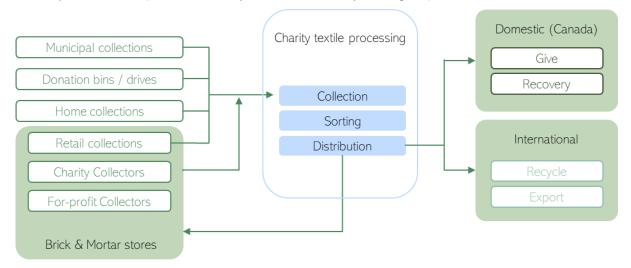


The largest of these charities are grouped under the umbrella of the National Association Charitable for Textile Recycling (NACTR), and their scope in the value chain of post-consumer textiles is much broader than just re-selling. With over 5,100 collection points across all provinces, these entities take on the collection of textiles from different sources, but also the sorting and distribution to different channels. This process is portrayed below.

NACTR members can be divided into three categories based on their scope in the value chain:

- Charities that collect and sort textile waste and then sell this within their own thrift store;
- Charities that collect and sort textile waste and then sell this to for-profit thrift stores; and,
- Charities that collect and sort textile waste and then sell the materials to organizations that export the waste or downcycle the material.

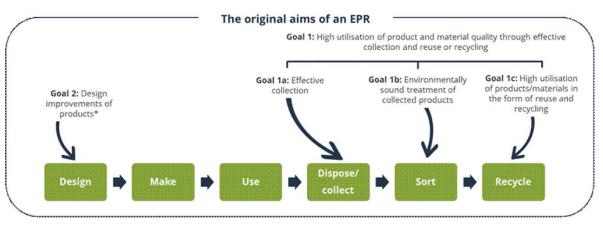
Although charitable collectors remain dominant in the Canadian secondary market for textiles, there has been an increase in the number of for-profit brick-and-mortar thrift stores and uptake in the popularity of e-commerce platforms, both peer-to-peer (p2p) and brand-operated. There is limited data on the informal and non-NACTR Reuse channels due to their fragmented nature; consequently, the big-picture view of the scale, dynamics and impact of secondary markets is currently missing for post-consumer textiles in Canada.



Relevance to Extended Producer Responsibility

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Extended Producer Responsibility (EPR) is a policy tool intended to 1) promote high utilization of product
 and material quality through effective collection and Reuse or recycling and 2) encourage design improvements of products ⁽²²⁾. EPR entails both financial responsibilities (i.e. financing the operational and administrative costs associated with managing waste materials) and physical responsibilities (i.e. establishing Producer Responsibility Organizations, which will be charged with coordinating physical collections and ensuring responsible onward treatment, among other governance responsibilities).



In Canada, EPR is provincially regulated and the number and scope of EPR schemes have been growing, now covering a variety of waste streams such as electronic products, batteries, and household packaging, to name a few. Textiles currently do not appear on the near-term action plans for EPR in Canada. Further afield, France is the only country that has introduced and implemented mandatory EPR for textiles. As of December 2022, Sweden's program is still progressing but the timeline for implementation has not been finalized. Previous draft legislation indicated phased implementation over several years with licensed textile collections starting on 1st January 2024 ⁽²³⁾. Policymakers in the UK, EU and Australia have also begun to explore the potential options ⁽²⁴⁾.

Whether EPR is appropriate for textile waste and its potential impact on the charitable resale model remains a debate both in Canada and elsewhere. A major concern for charitable collectors is that poor EPR program design could create incentives for greater collection but ultimately the same level of landfilling, incineration, or export and downcycling of textiles, thereby disadvantaging Reuse operations. As Dr Calvin Lakhan described in a column for *Advanced Waste Solutions* ⁽²⁵⁾, the crux of the issue is that used textiles are a valuable commodity and have been sustaining a collection network without policy incentives. However, it should be highlighted that the current cost of managing textile waste fails to account for the additional cost of sorting and distribution for Reuse and recycling in Canada.



The actual 'full net cost' of managing textile waste – the cost of collection, sorting, preparation for Reuse and recycling in Canada *by product or material type* less the revenue from product and material (re)sale - is a critical data gap. Building on existing work commissioned by ECCC to establish an evidence base, NACTR members seek to identify opportunities to improve and harmonize the data management system on post-consumer textile flows and market values.

The implication of EPR for the charitable/not-for-profit sector is further complicated by concerns around material ownership and beneficiaries of Reuse/recycling activities. This is because whilst EPR charges the producers with the financial and physical responsibilities for end-of-life material, the producers would also be entitled to the revenue received from the sale of that material as an offset to their costs. As Dr Lakhan puts it, at present, it is unclear what the implications of a 100% producer responsibility model would be for used textile collectors, particularly in the charitable/not-for-profit space. Product stewards (producers) may ultimately decide to rely on the existing collection networks in place (as opposed to doing it themselves) and designate certain organizations as preferred service providers. It is entirely possible that

charities/not-for-profits would then compete with other collectors to be a service provider, essentially reverting to a "bid/tender" process.

Page | 8 The Impact of Textile EPR in France

Although countless textile collectors and processors are clamoring for more material, less than 15% of used textiles are recycled (in the United States). Voluntary recycling and Reuse initiatives have had little impact on the waste problem. Emerging innovations that would enable companies to extract fibers from used textiles and turn recovered material into new products are far from being viable or scalable.

France, the only country in the world with an EPR law for textiles, achieved a 39% collection rate in 2020, up from 27% in 2013. Nearly 60% of the clothing, linens, and footwear collected is reused, and less than 1% is sent to landfill.

Data from France's textile EPR program could be a valuable reference, though the Canadian context (e.g. transportation distances and cost implications) must be taken into account. To this point, Canadian stakeholders may learn from the ongoing process of textile EPR option development and stakeholder consultation (planned for the end of 2022) in the UK. NACTR's UK counterpart, the Charity Retail Association (CRA), has highlighted the following considerations to ensure that EPR for textiles (in the UK context) has a positive environmental and social impact, and supports the continued ability of charity shops to raise money for **good** causes (26):

• There is financial support for Reuse to ensure Reuse is always the **most** cost-effective approach for anyone handling used textiles.

• Robust targets for increasing Reuse are established.

• Funding for new activities supports and complements existing Reuse activities in the UK.

• There are genuine financial incentives, through a lower levy fee, to encourage the production of clothing that lasts longer and is better suited for Reuse.

• The governance model and decision-making process for EPR includes representation from the existing charitable retail and Reuse sectors.

The Impact of Thrift and Reuse

Environmental impact

With the current setup, Canada is already diverting over 300 kt of textiles from reaching landfills or being incinerated annually, which according to the estimations of the European Environment Agency, can account for anywhere between 4,5 and 10,5 million of tCO₂e ⁽²⁷⁾. Additionally, post-consumer textiles usually make up 5% to 7% of landfill waste in Canada ⁽²⁸⁾ and it is estimated 360 kt of biodegradable fibers flow directly to landfill each year, contributing to methane emissions – a potent greenhouse gas.

It is important to reiterate that keeping textiles in use for longer brings benefits not only downstream with less GHG being emitted from landfill, but also upstream where less water, energy, and raw materials are needed. Encouraging consumers to extend the life of a single garment by just 9 months before disposal could reduce the emissions impact of that piece by 20-30% while finding a new home for a single garment can save over 2,000 litres of water ⁽²⁹⁾.

Reuse of textile waste through charity and notfor-profit programs remains the greatest opportunity for landfill diversions, and charity programs play a significant role in this movement. In Canada, a large percentage of landfill-diverted waste goes towards Reuse options rather than recycling, as recycling rates of plastics and current recyclables are quite low (around 20% ⁽³⁰⁾). Reuse of textile waste through charities and not-for-profit programs, therefore, remains the greatest opportunity for landfill diversions, and charity programs play a significant role in this. The Salvation Army Thrift stores (TSATS) alone diverted almost 28 million lbs (around 12.5 million kg) of textiles from landfill in 2021 ⁽³¹⁾, which equates to a saving of 189,915 – 443,135 tCO₂e. This public figure excludes smaller ministry-run stores under the TSATS umbrella, putting the estimated actual figure closer to 36 million lbs (16 million kg) of textile waste.

The partnership between Reuse operators and municipalities has proven to be another significant lever to divert textile waste from landfill to Reuse. For example, to drive down the high volumes of textiles going to landfills, the cities of Markham, ON, and Brandon, MB have banned textile waste from residential curbside waste collections and more than 160 municipalities across Canada are participating in a national research and textile diversion pilot program to study the impact of textile landfill diversion. These programs ensure that textile diversion bins are located around parks and community centres in addition to existing charitable collection services. This project also includes guides for consumers to identify what textiles are acceptable. These programs provide a valuable blueprint for municipalities looking to meet their own carbon targets and amplify their social impact by addressing the textile waste issue.



Stakeholders of the municipal textile diversion programs observed that residents are already habituated to separating valuable (i.e. reusable or recyclable) materials from household waste streams as part of the existing local collection programs. Therefore, introducing separate textiles waste collection was feasible as it does not involve drastic behavior change.

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Markham, Ontario - A Pioneer in Textile Waste Diversion

Page | 10The City of Markham Council launched a textile recycling program in
2016, guided by insights from an in-depth focus group study of residents.
Their successes is attributed to partnerships with The Salvation Army
(SA), Diabetes Canada and STEPS for Recovery. Since the launch of this
program, over 4000 tons of textiles have been diverted from landfills (32)
to Reuse and recycling activities. This partnership puts emphasis on
engaging with residents, strategically placing collection bins in common
areas, and co-branding the campaign so residents are aware of where
their donations are going to. It also made evident the need for additional
facilities to process all the incoming textiles.

A key takeaway from this program is that dealing with large quantities of waste remains a key challenge for many municipalities, and these programs need to be organically grown to ensure they are not overwhelmed. Similar advice can be extended to municipalities exploring textile landfill bans as often existing systems are unable to cope with the



large amount of textile waste collected, and investments need to be made in logistics and processing spaces before implementing such legislation.

Reuse for the Environment						
Opportunities	Challenges	Gaps				
Expanding infrastructure and logistic capabilities for recovery programs to divert more potentially reusable textiles from landfill. Initial estimates place the landfill diversion opportunity in the range of over 900kt, Continue growing and refining partnerships between municipalities and charities with operational capabilities. Improve the visibility of the programs by linking them directly to regional, national and international GHG emission reduction goals.	 Education and engagement with the public on the environmental effects of fast fashion and the potential benefits of thrift and Reuse. Alignment of national and provincial Circular Economy policies and regulations to create incentives for repair and Reuse. Determine the level of impact (economic, environmental and social) from the entire textile collecting sector. Addressing textile collection from multi- residential buildings as diversion rates are often much lower with unique challenges. 	 Methodology for data gathering/sampling to quantify the scale and impact of textile Reuse through non-NACTR channels. A further challenge is to establish a data management system that includes both charitable and non-charitable entities. Material and economic flow along the waste textile value chain feeding into the quantification of the 'full net cost' of managing textiles in line with Circular Economy principles and prioritizing repair/Reuse. Clear information about environmental effects and trade-offs of different diversion practices such as bin collection vs on-site donations. 				

Reuse for the Environment

Economic Impact

Page | 11 The thrift/Reuse apparel market has several opportunities to amplify the already significant economic benefits achieved to date . Although the Canadian market is already at an estimate value of CAD 3 billion ⁽³³⁾, the potential for expansion, as previously seen, could be of additional CAD 7 billion. For the charity stores this means there is a big opportunity for increasing revenue and profit for parent charities. Looking at the UK case can be insightful: in 2018 the UK second-hand market was of about GBP 2.5 billion (CAD 4.2 billion) ⁽³⁴⁾, from which around GBP 700 million was revenue for charity shops ⁽³⁵⁾ and GBP 295 million the contribution of charity retail to the charity sector ⁽³⁶⁾. This shows that the Canadian sector has the opportunity to transform market potential into donations at a rate close to 40%, boosting the impact and reach of the programs.

There are also direct benefits on people by having access to quality second hand clothing. A recent report by WRAP concluded that in the current cost of living crisis, households in the UK could save up to GBP 280 (over CAD 450) by reusing items that would otherwise be discarded ⁽³⁷⁾. Although as of November 2022 inflation in the UK was higher than in Canada, charity thrift is a way for households of all incomes to access affordable quality clothing.

On the other hand, the Canadian economy is expected to expand in the next 5 years, increasing individual disposable income and thus giving consumers the freedom to opt for newer, more expensive goods ⁽³⁸⁾. It would be important to translate the short-term need for quality Reused items into a long-term, sustained cultural shift, for ensuring that the thrift and Reuse market can thrive and become the new preferred way to shop.

In terms of jobs, the impact of the thrift economy in Canada needs more in-depth analysis. As of today, the NACTR members, who are only a small portion of the charities involved textile collection across Canada employ over 5,5 thousand people; mostly in retail, logistics and other operation

A Case in Data-Driven Textile Reuse

ReShare is a Netherlands-based textile collector. Their aim is to substantially reduce the amount of waste resulting from discarded clothing while continuing to provide high-quality and affordable apparel to customers. However, the manual effort associated with processing, identifying and pricing post-consumer textiles required expertise and time, which limited the type of employees that could be recruited to perform the review and threatened to hamper processing efficiency.

"It's tricky to confirm that clothing is high-quality enough to be viable for re-sale and then to figure out a fair price. Our employees have to know exactly what to look for, which takes time and knowledge and can still result in human error." - Leon te Riele, Floor Manager at ReShare

Through its collaboration with Capgemini to adopt the Alpowered Circle solution, ReShare was able to not only speed up the process of product review, but also ensuring that every item is examined with an equal level of expertise. As a result, ReShare was able to maximize the amount of clothing that is re-used and reaches the store. Additionally, the decreased requirement for brand- and product-specific expertise facilitated by the digital solution made it easier for ReShare to support its goal of providing employment to those who might otherwise have difficulty finding work, such as those with disabilities who no longer needed store

functions. One of the expected impacts of ramping up textile Reuse is that domestic jobs in these functions will increase, which may happen at the expense of manufacturing jobs, especially in mid and low income countries where most garments are made ⁽³⁹⁾.

Overall, the economic outlook for the textiles Reuse market in Canada is positive and presents a significant opportunity for charitable collectors to continue growing and fulfilling their respective missions. The Canadian apparel market is expected to continue growing at a rate of 4.5% annually in the coming years ⁽⁴⁰⁾, while the apparel thrift and Reuse market will do so at over 16% ⁽⁴¹⁾. Some of this growth will bring the challenges of new players in the form of online peer-to-peer platforms, established brands offering second-hand specific channels or repair services, and other for-profit actors with new business models.

This competitive landscape and low market share concentration can put stress on the upstream supply chain and encourage innovation. Charitable collectors would also need to focus on value proposition, communication and data-driven efficient operations to make the most of this moment. One example of leveraging data in textile Reuse operations is ReShare, a leading textile collector and partner of The Salvation Army Netherlands ⁽⁴²⁾. The organization sought to improve the process efficiency with item identification and pricing through the power of data and artificial intelligence. Canadian industry stakeholders, including the collectors, sorters and graders, could also scope out similar innovation opportunities to ease the burden on new employees and maximize resale revenue.

Reuse for the Economy

Opportunities	Challenges	Gaps
 Drive higher levels of textile diversion and capture the missed opportunity of up to CAD 7 billion in additional economic benefit for Canada. Build on the now mainstream perception of pre-owned fashion as an alternative. Engage with Gen Z to shift their mindset, as they become the more prevalent consumer group in the market ⁽⁴⁶⁾. Tap into digital technologies and channels for optimizing and growing Reuse, such as product passports for identifying and tracking materials, data management platforms, and social media for public education. 	 Lack of standardized data management systems and waste tracking may hinder decision-making to invest in infrastructure, and other initiatives involving digital strategies. Develop and expand the momentum on shifting consumer mindset to prefer Reuse and sufficiency over buying new, even in periods of economic growth and greater disposable income. 	 Understanding of the baseline performance in terms of the volume of textiles handled, sold, and passed on for disposal; and the associated operating costs. Understanding of consumer sentiment towards second-hand textile products and what levers are available. Understanding of current repair, care, upcycling and Reuse initiatives and their impact.

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Social Impact

Page | 13The main social benefits related to any charitable collector are the ones directly linked with the activities of
the parent charities. It is estimated that NACTR members help over 8,600,000 people yearly in their
diverse lines of work. Taking The Salvation Army as an example, this translates into 1.4 million people
assisted with food or clothing, almost 4 million meals served, and even assistance provided to 1,900

people in human trafficking situations ⁽³¹⁾. In the wider Canadian charity sector, the Imagine Canada's sector statistics reflect the reputational upper hand that charities have, as 80% of Canadians state that they have a lot or some trust in Charities ⁽⁴³⁾. Additionally, the report states that around 41% of Canadians volunteer for charities or non-profits.





Another important social

aspect of charities is the diversity of their workforce. A 2022 report by Imagine Canada states that women, immigrants, black, and indigenous people are overrepresented in the charitable workforce compared to the total Canadian economy. Women account for 77% of non-profit employees, significantly more than the 49% economy-wide. Immigrants represent 46% of the charity workforce, almost double than they do in the total economy; furthermore, as Canada ramps up immigration levels, the role of charities as providers of first entry jobs for immigrants is expected to become increasingly significant. Finally, black and indigenous workers account for 5% each, while they are 3% and 4% respectively in the wider Canadian landscape ⁽⁴⁴⁾.

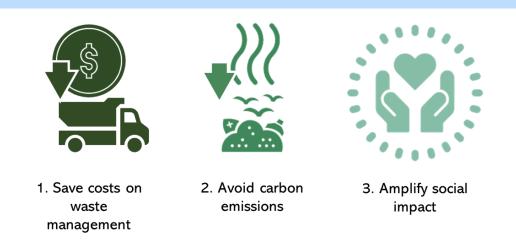
Reuse for the Society						
Opportunities	Challenges	Gaps				
 Promote the social mission and impact of charities in the textile collection space. Enable citizens to donate and reuse textiles with confidence of their contribution to community. Connect with smaller social enterprises and charities involved in textiles collection and reuse, who could benefit from joining NACTR (e.g. boosting credibility and learning best practices). 	 As different charities have different missions and action areas, demonstrating a consolidated headline impact is difficult. Operators posing as charities, misleading the public may erode trust and jeopardize collection and Reuse initiatives. 	 Lack methodology to translate the impact achieved by textile collectors to the societal benefits enabled by the charities. Identifying and connecting with small social enterprises and charities to better understand and support their causes. 				

The Way Forward

Page | 14 The textile thrift and Reuse market in Canada seems to be at an inflection point, where customer perceptions, operating models, and economic feasibility are converging for enabling growth in the coming years. As this happens, the current charity sector and emerging social enterprises are best positioned to deliver positive benefits across the three dimensions of sustainability:

- Environmental: Grow the level of textile diversion from landfills, which leads to the mitigation of adverse environmental impact both downstream and upstream. Immediately, landfill diversion contributes to the reduction of downstream methane emissions resulted from the decomposition of biodegradable fibers. As secondary markets displace the demand for new products and virgin materials, the upstream benefits of textile collection and Reuse could be even greater, preventing pollution and GHG emissions associated with raw material extraction, manufacturing and long-distance transportation for imports. Although textile collectors especially charitable collectors are already realizing these benefits by facilitating Reuse, there remains an untapped opportunity of nearly 1 million tonnes of reusable or recyclable materials heading for landfills.
- Economic: Growing textile collection and Reuse is an incredible economic opportunity with an already established industry primed for growth. The secondary markets of textiles have the potential to generate up to CAD 7 billion for the Canadian economy. Promoting textile collection for Reuse also drives job creation along the whole value chain, ranging from storefronts, logistic and back-office collection, to sorting and distribution processes. Moving more textiles from the waste stream and avoiding landfills not only supports the growth of secondary markets, but also shifts the associated cost burdens away from tax payers and local governments.
- Societal: Poverty & Social Justice, Community & Social Services, Homelessness & Housing and Society Benefit, are among the top social causes funded with textile collections. These social enterprises greatly assist and support the governments' social services sustained by tax-payers.

Triple benefit of collaboration between municipalities and charities



To achieve these goals, this white paper highlights three key areas of development for increasing postconsumer textile-waste diversion and expanding the sector:

• Influence customer perception and behavior: Efforts towards communicating the unique benefits of textile Reuse and charitable giving will need to be tailored to the different audiences. Education and promotion material designed together with municipalities on shared key messaging is essential. Consumer awareness, beliefs and behaviours across Canada should be benchmarked tracked over time to guide the design of campaign and collection programs.

- Establish a common framework and metrics for the secondary markets: Canada currently lacks a common framework that ties together essential methodologies and data such as material flow, impact assessment, market and infrastructure characterization. In the long run, this causes fragmented information and hinders the textile collection and Reuse sector in their efforts to chart their growth strategy, prioritize their efforts, and potentially establish impact metrics and targets. Much of the data collated in this report originated from organizations with long-running programs on the textiles value chain, such as the Ellen MacArthur Foundation and WRAP. Canada has started to address the data gap with recent studies on textile and plastic flows commissioned by ECCC. Going forward, it will be essential to build up a textiles program by supporting organizations such as NACTR, standardizing language, creating baselines for tracking progress, and establishing impact metrics building on both material and economic flow analysis.
- Foster collaboration: There is significant potential for growing partnerships between municipalities and the charitable textile collecting industry. Waste textile thrift and Reuse, especially through the charitable/not-for-profit sectors, represents a triple-benefit opportunity for Canadian municipalities to 1) save costs on waste management by diverting a valuable waste stream from landfills, 2) save carbon from landfill emissions as well as contributing towards carbon reduction through conscious consumption, and 3) amplify social impact by supporting good causes and employment opportunities in the sector. These benefits should be better quantified and communicated to support the proliferation of textile diversion programs and facilitate larger-scale diversion of textiles from landfill.

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References

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 1. The World Bank. How Much Do Our Wardrobes Cost to the Environment? worldbank.org. [Online]

 2019. https://www.worldbank.org/en/news/feature/2019/09/23/costo-moda-medio-ambiente.

2. **McKinsey.** The State of Fashion 2023: Holding onto growth as global clouds gather. *Mckinsey.com.* [Online] 2022. https://www.mckinsey.com/industries/retail/our-insights/state-of-fashion.

3. **BBC.** Why clothes are so hard to recycle. *bbc.com.* [Online] 2020. https://www.bbc.com/future/article/20200710-why-clothes-are-so-hard-to-recycle.

4. Ellen Macarthur Foundation. A New Textiles Economy: Redesigning Fashion's Future. 2017.

5. European Parliament. Environmental Impact of the Textile and Clothing Industry - What Consumers Need to Know. s.l. : European Union, 2019.

6. —. The Impact of Textile Production and Waste on the Environment (infographic). *europarl.europa.eu.* [Online] 2022. https://www.europarl.europa.eu/news/en/headlines/society/20201208ST093327/the-impact-of-textile-production-and-waste-on-the-environment-infographic.

7. Brooks, Andrew. Clothing Poverty: The Hidden World of Fast Fashion and Second-Hand Clothes. s.l. : Zed Books, 2015.

8. *The environmental impact of fast shipping ecommerce in inbound logistics operations: A case study in Mexico.* **Munoz-Villamizar, Andres, et al.** 2021, Journal of Cleaner Production, Vol. 283.

9. **Statista.** Canadian Apparel Market - Statistics & Facts. *statista.com.* [Online] 2022. https://www.statista.com/topics/5125/apparel-market-in-canada/#topicHeader__wrapper.

10. **Statistics Canada.** Household Spending by Household Type. [Online] 2021. https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110022401.

11. **Environment and Climate Change Canada.** *A Healthy Environment and a Healthy Economy.* Gatineau : Environment and Climate Change Canad, 2020.

12. McKinsey. Scaling Textile Recycling in Europe - Turning Waste Into Value. 2022.

13. Fashion Takes Action. A Feasibility Study of Textile Recycling in Canada. 2021.

14. **Quantis.** *Measuring Fashion - Environmental Impact of the Global Apparel and Footwear Industries Study.* 2018.

15. Lakhan, Calvin. Phase 2 Textile Diversion Study - Appendix A. s.l. : York University Draft study, 2018.

16. **Statista.** Distribution of Textiles in Housegold Residual Waste in the United Kingdome in 2017, by Type of Clothing and Collection Source. *statista.com.* [Online] 2022. https://www.statista.com/statistics/1090053/textiles-in-household-residual-waste-in-the-uk-by-type-and-source/.

17. European Commission. Questions and Answers on EU Strategy for Sustainable and Circular Textiles. *ec.europa.eu.* [Online] 2022. https://ec.europa.eu/commission/presscorner/detail/en/QANDA_22_2015.

18. Waste Reduction Week in Canada. Textiles Waste: The Facts. *wrwcanada.com.* [Online] https://wrwcanada.com/en/get-involved/resources/textiles-themed-resources/textiles-waste-facts.

 Page | 17
 19. United States Environmental Protection Agency. Textiles: Materila-Specific Data. EPA.gov. [Online]

 2018.
 https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/textiles-material-specific-data.

20. Cheminfo Services Inc. *Characterizing Reuse, Recycling and Disposal of Textiles in Canada.* s.l. : Environment and Climate Change Canada, 2022.

21. Government of Canada. Canadian Textiles Industry. *ised-isde.canada.ca.* [Online] https://ised-isde.canada.ca/site/canadian-textiles-industry/en/industry-profile.

22. OECD. Extended Producer Responsibility Guidance Manual. [Online] 1982.

23. Lorax EPI. Textile EPR in Sweden. *Lorax EPI.* [Online] 05 Oct 2021. https://www.loraxcompliance.com/blog/env/2021/10/05/Textile_EPR_in_Sweden.html.

24. Australian Fashion Council. *National Clothing Product Stewardship Scheme Design Global Scan Report.* s.l.: Queensland University of Technology, 2022.

25. Lakhan, Calvin. Extended Producer Responsibility for Textiles? Not so Fast... *Advanced Waste Solutions.* [Online] 2019. https://advancedwastesolutions.ca/2019/05/03/extended-producer-responsibility-for-textiles-not-so-fast/.

26. **Charity Retail Association.** CRA: Reuse Must be at the Heart of Textiles Extended Producer Responsibility Plans. *charityretail.org.uk.* [Online] 2022. https://www.charityretail.org.uk/cra-reuse-must-be-at-the-heart-of-textiles-extended-producer-responsibility-plans/.

27. Slater, Keith. *Environmental Impact of Textiles - Production, Processes and Protection.* s.l. : Woodhead Publishing, 2003.

28. City of Markham. Textiles. *Markham.ca.* [Online] https://www.markham.ca/wps/portal/home/neighbourhood-services/recycling-garbage/services/textiles.

29. NACTR. A Tipping Point: The Canadian Textile Waste Diversion Industry. 2019.

30. Lakhan, Calvin. *Better Practices in Municipal Textile Diversion: Experiences to Date.* s.l.: York University, 2021.

31. The Salvation Army Thrift Store. Impact Report 2021 - 2022. 2022.

32. Informa Market Research. *Textile Diversion - An Indepth Study of Behaviour & Perceptions.* Markham : s.n., 2014.

33. **Toneguzzi, Mario.** Canadian Resale Apparel Market Sees Rapid Growth Amid Retail Slump: Study. *Retail Insider.* [Online] 20 December 2019. https://retail-insider.com/retail-insider/2019/12/canadian-resale-apparel-market-sees-rapid-growth-amid-retail-slump-study/.

34. **IBISWorld.** Secind-Hand Goods Stores in the UK - Market Size 2010 -2028. *ibisworld.com.* [Online] 2022. https://www.ibisworld.com/united-kingdom/market-size/second-hand-goods-stores/.

35. **Statista.** Secondhand Retail in the UK - Statistics & Facts. *statista.com.* [Online] 2022. https://www.statista.com/topics/4593/second-hand-retail-in-the-united-kingdom-

uk/#:~:text=A%202022%20survey%20found%20out,This%20text%20provides%20general%20infor Page | 18 mation..

36. **Charity Retail Association.** Our 2018 Research Programme Findings. *charityretai.org.uk.* [Online] 2018. https://www.charityretail.org.uk/our-2018-research-programme-findings/.

37. WRAP. *The Role of Reuse in Helping Families Through the Cost-of-Lving Crisis.* Banbury : s.n., 2022. Prepared by Keith James, Sarah Key & Muhammad-Ameen Hatia.

38. **IBISWorld.** Used Goods Stores in Canada - Market Research Report. *ibisworld.com.* [Online] 2021. https://www.ibisworld.com/canada/market-research-reports/used-goods-stores-industry/.

39. PACE - Platform for Accelerating the Circular Economy. *Textiles - Circular Economy Action Agenda.* The Hague : s.n., 2021.

40. **Statista.** Apparel - Canada. *statista.com.* [Online] https://www.statista.com/outlook/cmo/apparel/canada.

41. —. Secondhand Apparel Market Value Worldwide From 2021 to 2026. *statista.com.* [Online] 2022. https://www.statista.com/statistics/826162/apparel-resale-market-value-worldwide/.

42. **Capgemini.** Reshare, part of The Salvation Army, makes fashion retail more sustainable with Al. *Capgemini.com.* [Online] https://www.capgemini.com/news/client-stories/reshare-part-of-the-salvation-army-makes-fashion-retail-more-sustainable-with-

ai/#:~:text=With%20this%20solution%2C%20ReShare%20employees,apparel%20would%20be%20m ost%20appropriate..

43. Imagine Canada. Canada's Nonprofit Sector in Numbers. 2021.

44. —. *Diversity is our Strength - Improving Working Conditions in Canadian Nonprofits.* Toronto : s.n., 2022.

45. —. *Unfair or Unwanted? Competition Between Charities and For-Profit Businesses in Canada.* Toronto : s.n., 2019.

46. **Boston Consulting Group.** What an Accelerating Secondhand Market Means for Fashion Brands and Retailers. *bcg.com.* [Online] 2022. https://www.bcg.com/publications/2022/the-impact-of-secondhand-market-on-fashion-retailers.