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Textiles and Garments

Trade and Climate Scenarios on the Road to 2050: Scenarios and Implications for Developing Countries and Climate-Resilient Development

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TESS Forum on Trade, Environment, & the SDGs

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About This Series of Sectoral Briefing Notes

This briefing note is part of a series of sectoral notes commissioned by TESS intended to inform a final report on *Trade and climate scenarios on the road to 2050: Implications for developing countries and climate-resilient development*.

The series and the report aim to provide an overview of current and anticipated transformations in trade on the road to 2050 in the context of the unfolding climate crisis and the international community's climate action agenda and to discuss potential scenarios and implications for developing countries.

A wider objective of the series is to contribute to a better understanding of emerging trade and trade policy trends and dynamics and their implications within the various sectors, with a focus on supporting developing countries in identifying and advancing their climate change trade-related interests and priorities in international discussions.

The sectors covered in the series include agriculture, border carbon adjustments, carbon markets, critical minerals, digital trade, fisheries, energy, heavy industries, textiles, tourism, and transport, each authored by experts in these respective fields.

Abbreviations

BCA	Border Carbon Adjustment
CBAM	Carbon Border Adjustment Mechanism
CO2e	Carbon Dioxide Equivalent
COP	United Nations Climate Change Conference [Conference of the Parties]
DPP	Digital Product Passport
ESPR	Ecodesign for Sustainable Products Regulation
EU	European Union
GHG	Greenhouse Gas
Gt	Gigatonnes
HS	Harmonized System
NDC	Nationally Determined Contribution
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
WTO	World Trade Organization

1. Trade, Climate, and Sustainable Development Nexus in the Textile and Garment Sector

The textile and garment sector plays a significant role in the global economy, particularly for developing countries. Global trade and liberalization of market access for garments and textiles have generated significant welfare gains for developing countries. At the same time, however, the sector is also a major contributor to environmental degradation, with significant greenhouse gas (GHG) emissions across different stages of its value chain (Samant et al., 2024). From the cultivation of cotton and other raw materials to the production, spinning, transportation, retail, use, and eventual disposal of garments, each stage contributes to the sector's substantial carbon footprint. The production phase, which involves energy-intensive processes like spinning, weaving, and dyeing, is particularly emissions intensive.

The quantification of GHG emissions across the global textile and garment value chain has been the subject of various studies and reports, leading to differing estimates. At the lower end, the World Resources Institute estimates that 1.025 gigatonnes (Gt) of carbon dioxide equivalent (CO_2e) were emitted in 2019, or roughly 2% of annual global GHG emissions (Sadowski & Cummis, 2022). Material production, such as knitting, weaving, dyeing, and finishing, contributes to over 50% of these emissions. Upstream raw material production, such as cotton farming and oil and gas extraction for synthetics, creates roughly another quarter of emissions. Another estimate by McKinsey & Company and Global Fashion Agenda (2020) estimates the textiles value chain accounting for 4% of global emissions (2.1 Gt CO_2e) in 2018—about the same quantity of GHG emissions per year as the entire economies of France, Germany, and the United Kingdom combined. At the top end of estimates, the global fashion industry is responsible for up to 10% of annual global carbon emissions, more than all international flights and maritime shipping combined. This estimate includes indirect emissions across the life cycle, such as those from transportation and energy use in retail (European Parliament, 2021; Leal Filho et al., 2022).

The sector is intricately linked with the climate crisis in multiple ways, not only through its emissions. It is also vulnerable to the impacts of climate change, such as water scarcity, extreme weather events, and changing agricultural conditions that affect raw material supplies. For developing countries, where the textile and garment industry often represents a large share of industrial activity and employment, these climate impacts pose significant risks to economic stability and employment. Extreme heat and flooding have been identified as key threats to international apparel hubs, with four countries—Bangladesh, Cambodia, Pakistan, and Vietnam, which collectively account for 18% of global apparel exports—risking losing one million jobs and facing losses of $65 billion by 2030, equivalent to a 22% decline in export earnings. By 2050, continuing current practices in the four countries leading production could result in 68.8% lower industry earnings and the loss of 8.6 million jobs, a 34.5% employment drop (Catt, 2023).

Furthermore, climate-induced disruptions can affect supply chains and shipping, leading to increased costs and trade uncertainties. Leading apparel retailers are beginning to assess the potential risks to company suppliers from a wide range of climate events, including hurricanes, droughts, and wildfires (S&P Global, 2024). This is because a significant portion of raw and finished fabric used in a company's manufacturing processes is sourced from providers in developing countries, which often have high climate-related vulnerabilities.

Given its importance for low- and middle-income countries, the textile and garment sector has a critical

role to play in both climate mitigation and climate-resilient development. Sustainable and circular practices within the industry can reduce emissions, promote efficient resource use, and enhance resilience to climate impacts. As a key driver of economic activity in this sector, trade intersects with climate actions in complex ways: international trade policies can either support or hinder climate objectives. Understanding these interlinkages is thus essential for crafting effective strategies for the sector that promote decarbonization, trade, employment creation, and climate resilience.

2. Climate Action and Impact Scenarios in the Textile and Garment Sector: The Road to 2050

International commitments related to climate change, such as the Paris Agreement, emphasize the need for significant reductions in GHG emissions. Large textile and garment producer countries, including China, Bangladesh, the European Union (EU) (Germany, Italy, Spain), India, Pakistan, Türkiye, the United States, and Vietnam, are beginning to establish sectoral GHG emission reduction targets, most of which are, however, not mandatory. For the textile and garment sectors in these countries, some key commitments include those related reducing emissions through energy efficiency in manufacturing and investing in renewable energy. In China, for example, carbon emissions of the textile and apparel industry stand at about 230 million tonnes annually, accounting for 2.8% of national industrial emissions. A decarbonization roadmap to 2030 has been laid out and the sector is expected to reduce carbon emissions through market-oriented approaches such as carbon trading mechanisms. (Zhu, 2023). In 2022, the textile sector was included in the Guangdong provincial carbon trading scheme (King & Wood Mallesons, 2023). In Bangladesh, the ready-made garment (RMG) sector contributes 15.4% of the country's GHG emissions while the textile sector emits 12.4%, which poses a challenge to achieving the South Asian nation's GHG reduction targets (Shuvra Halder & Raju, 2024). In its updated Nationally Determined Contribution from 2021, Bangladesh has committed to a 6.73% GHG reduction in the unconditional scenario and an additional 15.12% reduction in the conditional scenario with international support by 2030 (Bangladesh Ministry of Environment, Forest and Climate Change, 2021).

When it comes to countries' nationally determined contributions (NDCs) submitted as obligation under the Paris Agreement, out of the 10 major exporting countries, only Pakistan's NDC includes a mention of the textile and garment sector, where it plans to promote bottom-up actions by the private sector and develop plans for emission reductions from textiles and garments. Overall, the information on national textile sector GHG emissions is not very robust, as there is a lack of standardized methodologies applied internationally, resulting in significant data gaps. (Table 1).

At the 2028 UN Climate Change Conference (COP24), global fashion brands and producers signed the Fashion Industry Charter on Climate Action committing to 30% aggregate GHG emission reductions in scope 1, 2, and 3 by 2030 (UNFCCC, n.d.-a). While this is an ambitious commitment, to be compatible with a 1.5 degree pathway, the global textile and garment sector would need to cut its GHG emissions even further—by almost 0.5 to 1.1 billion tonnes of CO2e by 2030. But growth calculations show that the industry is set to overshoot this target by almost twofold, with estimated emissions of 2.1 billion tonnes of CO2e in 2030 unless it adopts additional abatement actions (McKinsey & Company & Global Fashion Agenda, 2020). Reducing emissions in the sector at the scale and speed needed will require engagement with thousands of suppliers across multiple countries to measure emissions and identify and implement reduction measures.

Table 1. Trade Volumes, Export Shares, GHG Emissions (Estimates), and NDC Commitments of Major Textile and Garment Exporting Countries

Country	Trade Volume ($ billion)	Share of Global Exports (%)	Textile and Garment Annual Emissions / Share of Total Emissions	Included in NDC as Sector
China	303	32.2	230 million metric tonnes of CO2, 2.8% of national industrial emissions (Zhu, 2024)	No
Bangladesh	57.7	6.13	RMG sector contributes 15.4% of national GHG emissions, textile sector emits 12.4%	No
Vietnam	48.8	5.18	5 million metric tonnes CO2 (Vienam.vn, 2023)	No
India	41.1	4.36	No national data found	No
Germany	40	4.25	2 million metric tonnes CO2e direct emissions (overall footprint 38 million tonnes CO2e) (Oxford Economics, 2023)	No (as part of EU NDC submission)
Türkiye	36.7	3.9	No national data found	No
Italy	36.7	3.9	No national data found, but included in EU 121 million tonnes CO2e (EEA, 2024)	No (as part of EU NDC submission)
United States	29.8	3.17	445 million tonnes of CO2e (Normand, 2023)	No
Pakistan	22.1	2.35	9.5% of national GHG emissions (Sattar & Akhtar, 2022)	Yes (support for public-private and bottom up private sector action)
Spain	20.3	2.16	No national data found, but included in EU 121 million tonnes CO2e (EEA, 2024)	No (as part of EU NDC submission)

Sources: World Population Review (n.d.); UNFCCC (n.d.-b).

Textile and garment manufacturing countries have significant challenges to reduce scope 2 emissions from the energy use for manufacturing activities.[1] In most countries the share of fossil fuels in primary energy consumption is well above 80% (Table 2). Maximizing energy efficiency in processing, especially spinning and weaving, and eliminating coal for heat generation in manufacturing and shifting to renewables for electricity will be key solutions. Furthermore, rooftop solar panels are a primary way garment factories can invest in clean electricity; such initiatives can help to reduce the carbon footprint of the electricity supply and are often influenced by sourcing brands. For heat generation, bio-based feedstocks such as risk husk boilers can provide low-emission heat sources in supplier factories to directly reduce the use of coal (H&M Group, 2024).

1. Scope 2 emissions are indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling.

Table 2. Primary Energy Consumption in Selected Textile and Garment Producer Countries by Share of Fossils Fuels (%) and Fuel Type (Exajoules) (2023)

Country	Share of Fossil Fuels	Oil	Natural Gas	Coal	Nuclear	Hydroelectric	Renewables	Total
Bangladesh	98.9%	0.52	1.01	0.28	0	0.01	0.01	1.83
China	81.5%	32.73	14.57	91.94	3.90	11.46	16.13	170.74
India	89.3%	10.57	2.25	21.98	0.43	1.39	2.38	39.02
Indonesia	83.4%	6.65	3.33	4.54	0.70	0.70	1.49	17.40
Pakistan	81.9%	0.78	1.36	0.62	0.20	0.35	0.06	3.37
Türkiye	81.1%	2.30	1.74	1.65	0	0.60	0.71	7.00
Viet Nam	77.1%	1.20	0.26	2.32	0	0.76	0.36	4.89

Source: Energy Institute (2024).

Furthermore, initiatives around scope 3 emissions in the textile and garment sector is intensifying as brands, regulators, and consumers increasingly recognize the importance of addressing these indirect emissions, which often constitute the majority of a brand's carbon footprint.[2] In the textile and garment industry, Scope 3 emissions are particularly significant due to the globalized nature of supply chains and will require collaboration across multiple jurisdictions. Regarding methodologies to measure scope 3 emissions, the Science Based Targets initiative (n.d.) provides a framework for companies to set emissions reduction targets in line with climate science. Many fashion brands are now setting scope 3 reduction targets under this initiative, which encourages companies to engage with their upstream suppliers and stakeholders to achieve these goals.

However, to achieve the global ambition of reaching net zero by 2050, the sector will need to undergo significant transformations that go beyond decarbonization of energy systems used in production and manufacturing. Current data and trends indicate that a growing focus needs to be placed on sustainable materials, material efficiency, and waste reduction. Several interventions can be implemented to reduce emissions across the textile and garment supply chain such as enhancing materials efficiency and circularity through reuse and recycling of materials, shifting to next generation materials and alternative materials e.g. hemp, bamboo (Sadowski & Cummis, 2022). Policies promoting circular economy principles—such as reuse, second-hand markets, and recycling of textiles—are highly relevant for the textile and garment industry. In developing countries,

2. Scope 3 emissions include all indirect emissions that occur in a company's value chain both upstream and downstream, such as those from raw material production, transportation, retail, product use, and disposal.

regional trends vary, but common themes include increasing adoption of sustainable agricultural practices for cotton production and investment in green technologies for manufacturing

By 2050, these technology and material innovations, supported by policies, have the potential to transform the sector substantially. We can expect to see a shift towards more circular and resilient supply chains, a greater emphasis on eco-friendly production processes, and the development of new products designed with circularity in mind. The sector may see a decline in traditional, high-emission production methods, while innovative, low-impact processes and materials gain prominence. These changes will not only influence the sector's environmental footprint but also its economic dynamics, potentially reshaping global trade patterns and competitive landscapes.

3. Trade-Related Trends and Dynamics in the Textile and Garment Sector

Textile and garment trade represented 3.9% of international merchandise exports in 2022, the world's seventh most traded product category, with a total trade value of $941 billion (OEC, 2023). Based on the current trajectory, latest growth estimates of the market volume of textiles and garments indicate that the global apparel market could grow by 3–4% annually post-2023, reaching approximately $2 trillion by 2030 (McKinsey & Company, 2024). In terms of volumes, total clothing trade and sales could reach 175 million tonnes in 2050—more than three times the amount traded in 2015 (Ellen MacArthur Foundation, 2017).

In the absence of decarbonization measures, emissions and environmental impacts across the textile and garment value chain can be expected to increase accordingly. Continued growth at the current pace of 3–4% per year would see the fashion industry's GHG emissions increase to approximately 2.99 Gt CO2e under a 3% annual growth rate and around 3.36 Gt CO2e under a 4% annual growth rate by 2030 (based on 2.1 Gt CO2e in 2018). Due to the growing demand for clothing, exacerbated by the proliferation of the fast fashion business model, it is projected that by 2050 the fashion industry could account for approximately 25% of the world's carbon budget associated with a 2oC global warming limit (Ellen MacArthur Foundation, 2017).

National climate mitigation policies and measures in the major consumer markets are expected to have implications for trade trends in the textile and garment sector. Mitigation efforts, such as carbon pricing and emission reduction targets, may increase production costs, influencing global trade flows and competitiveness.

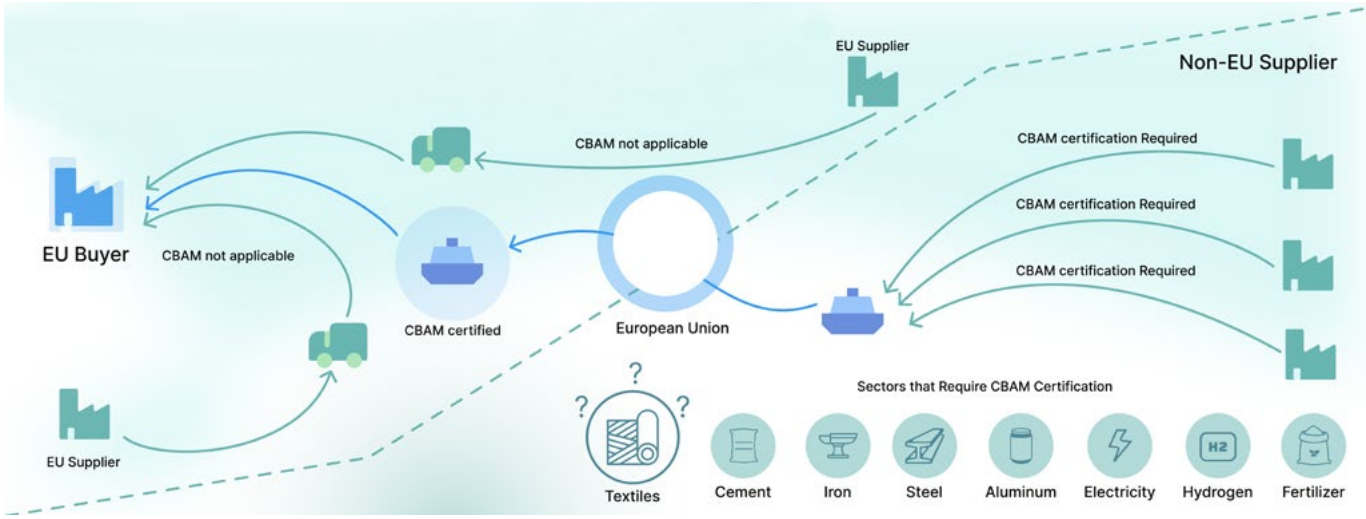
In the United States, the Climate Corporate Data Accountability Act (SB 253), a new California state law that requires large textile and apparel companies (with more than $1 billion in annual revenue) to report their scope 3 emissions, which often account for the majority of a fashion brand's carbon footprint and occur outside the United States, will take effect in January 2026. The first reports will be due in 2027 (Lüttin, 2024).

Data and reporting on scope 3 emissions will be necessary for the introduction of border carbon adjustments (BCA). This could significantly affect textile and garment trade, particularly for countries that are major exporters to regions like the EU, which has introduced its Carbon Border Adjustment Mechanism (CBAM). The United Kingdom is considering the introduction of a BCA from 2027 (HM Treasury, 2024). In its current transitional phase (2023–2026), the textile and garment sector is not part of the EU's CBAM, however, given the emissions involved in the

manufacturing process of textiles, it might come under its umbrella in the years following application of the definitive regime (2026–2034) (GreenStitch, 2024; Fibre2Fashion, n.d.).

BCAs would impose additional costs on textiles and garments imported into consumer markets such as the EU from countries with lower or no carbon pricing mechanisms. The estimate for textile unit production cost increases from carbon pricing (assuming a carbon price of $50 per tonne in 2030) would be 2–3% for China and the US, and about 9% for India (significantly lower than for other sectors such as iron and steel and non-ferrous metals) (Keen et al., 2021). On a product level, for a t-shirt manufactured and exported to the EU for example (assuming an average price of $60/tonne of CO2), a BCA could add about 20 cents, with the cost of carbon emissions alone accounting for 30–40% of processing costs (Vietnam.vn, 2023) (see Figure 1 for a depiction of the potential implications of a CBAM transition for the textiles sector).

Figure 1. CBAM Transition: Opportunities and Challenges for the Textiles Sector



Source: GreenStitch (2024). © 2024 GreenStitch Technologies Pvt Ltd

As noted, in addition to measures that target sector emissions, there are also efforts underway to create a more circular textiles economy that focuses on material efficiency and reduction of material throughput and waste generation. The EU, for example, is advancing policies to promote circular textiles, focusing on integrating recycled content into products to reduce waste and resource consumption. A key policy initiative is the EU Strategy for Sustainable and Circular Textiles launched in 2022 (European Commission, n.d.-b).

Another policy train that is being rolled out over the next years in the EU is the Ecodesign for Sustainable Products Regulation (ESPR), which entered into force in July 2024 (European Commission, n.d.-a). This policy enables the setting of performance and information conditions—known as ecodesign requirements—for almost all categories of physical goods, including textiles and garments. While the detailed ESPR work plan is still being developed (expected to be adopted in the first half of 2025), the new ecodesign requirements

for textiles (including garments and footwear) will likely cover the design of textiles, ensuring they are more durable, reusable, repairable, and contain a significant proportion of recycled materials. Furthermore, the adoption of the first ESPR rules to operationalize measures on the destruction of unsold consumer products goods will happen in the first year of the ESPR.

Additionally, the ESPR will introduce a Digital Product Passport (DPP)—a digital identity card for products, components, and materials, which will store relevant information to support the sustainability of products, promote their circularity, and strengthen legal compliance. This tool is expected to enhance the textile industry's traceability, circularity, and transparency. The information will be accessible electronically, making it easier for consumers, manufacturers across different supply chain tiers, and authorities to make informed decisions related to sustainability, circularity, and regulatory compliance. It would also allow customs authorities to perform automatic checks on the existence and authenticity of the DPPs of imported products.

Given the complexity and technical requirements of a DPP for textiles and garments, there would be a step-by-step scenario for the deployment of a DPP in three phases (this is currently hypothetical and not mandated by legislation) (European Parliamentary Research Service, 2024):

- Phase 1. Deployment of a "minimal and simplified DPP" for textiles on a short-term horizon of 2027. This proposed minimal and simplified DPP is mainly based on the dissemination of mandatory information, completed with additional information that would be useful for life cycle analysis.

- Phase 2. Deployment of an "advanced DPP" for textiles on a mid-term horizon of 2030. This advanced DPP could be progressively extended to other stakeholders with more information collected across the life cycle, based on the findings from the first phase and the results of experimentation.

- Phase 3. Deployment of a "full circular DPP" for textiles on a long-term horizon of 2033. During this last phase, a full circular DPP could be deployed to promote circularity in the textile sector.

While these measures aim to enhance decarbonization and circularity, there is a risk they could inadvertently create trade barriers, particularly for manufacturers in developing countries that may struggle to meet these stringent criteria. The shift towards circular textile products in consumer markets like the EU, California (through its extended producer responsibility legislation), and the United Kingdom potentially introduces a range of non-tariff trade barriers such as restrictive measures on imports of "linear" textile products—for example import licensing requirements, complex technical regulations, standards, and certification requirements, differing labelling or traceability requirements, and specific packaging requirements (e.g. biodegradable materials instead of single-use plastic packaging).

The downstream, post-consumer value chain includes the second-hand textile trade, which has long been a complex issue, particularly when it leads to the dumping of textile waste in developing countries. While trade in second-hand clothing can offer economic opportunities and affordable clothing options in these regions, it also has significant downsides, especially when the volume of waste exceeds the local capacity to manage it. In many cases, textiles that are unsellable or of extremely low quality are shipped under the guise of second-hand clothing, leading to environmental and social issues.

4. Opportunities and Challenges for Developing Countries

This second-hand garment trade poses many challenges to developing countries. One issue is the misclassification of textile waste and used textiles and garments under the Harmonized System (HS) codes. Often, what is labelled as "second-hand clothing" may in fact be unsalvageable waste, deliberately mislabelled to bypass trade regulations. According to the UN Comtrade database, in 2022 alone, over 9.7 million tonnes of used textiles and worn clothing were exported globally for a value of $9.5 billion, with a significant portion of the low value waste textiles ending up in Africa and South America (circulareconomy.earth, n.d.).[3] For instance, the Atacama Desert in Chile has become a notorious dumping ground for unsold and discarded textiles from around the world (Shipley & Alarcon, 2024). Chile imported over 150,000 tonnes of used clothing in 2022.[4] These dumpsites not only scar the landscape but also contribute to environmental degradation, as synthetic fibres release microplastics and toxic chemicals into the soil and waterways, exacerbating climate change and pollution.

The misdeclaration of textile waste as second-hand goods not only undermines the intended purpose of recycling and reusing textiles but also shifts the burden of waste management to developing countries, which often lack the infrastructure to process such waste safely and sustainably. As a result, these countries are left with massive accumulations of textile waste, leading to health hazards and environmental damage. Textile waste dumping also further exacerbates climate impacts through the release of greenhouse gases as textiles decompose or through open burning at dumpsites.

On the positive side, developing countries stand to gain new trade opportunities in the textile and garment sector on the road to 2050. By embracing sustainable practices, circularity, and low-carbon manufacturing processes, they can enhance their competitiveness in the global market. Investment in green production methods, sustainable cotton farming practices, and circular economy models can ensure access to existing markets while producing higher quality and more durable garments

However, these opportunities come with challenges. Transitioning to sustainable practices requires significant investment and capacity building. Developing countries must address issues such as limited access to finance, technology, and expertise. Additionally, they must navigate complex international trade regulations and standards that increasingly emphasize sustainability and circularity.

Trends towards nearshoring and reshoring manufacturing to shorten supply chains and reduce emissions as well as potential climate-induced disruptions could have significant implications for least developed countries like Bangladesh, Cambodia, and Ethiopia, which are heavily reliant on textile exports. These regions may face economic volatility as production capacities shift and comparative advantages change. To remain competitive, supplier countries will need to enhance efficiency, add value to their garment industries, and diversify their economies.

As trade policies increasingly incorporate climate considerations, such as carbon emission regulations, eco-design product standards, and incentives for green technologies, the competitive landscape will be reshaped. Policies like the EU's CBAM and new eco-design criteria for textiles and garments could favour

3. See the results for world textile imports and exports in 2022 in the circulareconomy.earth (n.d.-a) dataset developed by Chatham House.
4. 4 See the results for Chile textile imports in 2022 in the circulareconomy.earth (n.d.-b) dataset.

sustainable practices, but also impact existing trade relations and development strategies. Developing countries will need to navigate these evolving trends carefully, balancing new opportunities with the challenges posed by shifting global trade dynamics.

In conclusion, the interplay between trade, climate action, and the textile and garment sector presents both significant opportunities and challenges. For developing countries, proactive strategies that integrate climate-resilient development and sustainable trade practices will be crucial for leveraging the benefits and mitigating the risks associated with these dynamic changes. By 2050, the sector's transformation can contribute to global climate goals while promoting sustainable development in some of the world's most vulnerable regions.

5. Priorities for Policy Engagement and Future Analysis

In the short-term, a priority should be to include the textile and garment sector in the next update of the NDCs for the 2025 UN Climate Change Conference (COP30), with specific sectoral targets for emission reductions. This will be an important policy signal for international brands and the industry. Furthermore, financial, technological, and capacity building support will be needed from the international community to achieve any of these potential targets.

In parallel, it is becoming imperative for producer countries to implement national policies to address the environmental impact and carbon footprint of domestic textile and garment manufacturing. Setting clear, short-term targets for emission reduction in the textile and garment industry will not only accelerate decarbonization efforts, but also promote sustainable practices in manufacturing, raw material sourcing, and supply chain management. These targets would not only mitigate the sector's climate change impact, but also encourage innovation and enhance resource efficiency.

Government policies for textile and garment manufacturing hubs will be critical in supporting decarbonization of production. Financial support through tax breaks, subsidies, incentives and lower loan rates, as well as providing renewable energy infrastructure are required (Leal Filho et al., 2022). Additionally, new financial mechanisms such as circular textiles funds or preferential trade agreements for garments with recycled content could be explored to support investments in resource efficiency, waste minimization, and decarbonization of textile manufacturing

As the global textile and garment industry seeks to decarbonize, it is crucial to prioritize policy engagement and future analysis, particularly in relation to trade aspects. A coordinated approach at the World Trade Organization (WTO) will be essential to ensure that decarbonization efforts are harmonized across borders and do not lead to protectionism or trade distortions and unfair discrimination. The WTO can play a pivotal role in developing frameworks that encourage the adoption of carbon pricing mechanisms for the global textile and garment value chain, while ensuring they are consistent with global trade rules. This includes facilitating constructive dialogue among member states to create transparent, non-discriminatory policies that support ambitious climate goals, but without unfairly penalizing developing countries.

To avoid restricting market access for trading partner countries in the upstream textile and garment value chain, the EU should consider implementing supportive measures, such as technical assistance, capacity building, and financial support, to help developing country producers comply with the new standards under the ESPR and other policies related to textiles circularity. Producers often lack the financial resources and technological capabilities to transition to lower carbon production methods or to implement traceability

requirements such as the Digital Product Passport. This approach would not only ensure a level playing field but also promote global collaboration in the transition towards more circular textile production and consumption.

Future analysis should examine the potential impacts of trade policies on these countries, including the risk of carbon leakage and the economic consequences of BCAs on their export competitiveness. Moreover, it is vital to explore how global supply chains can be realigned to ensure that decarbonization efforts lead to inclusive growth and socially just transitions, rather than exacerbating social inequalities that are already widespread in the sector. This includes assessing the role of multinational corporations and brands in actively supporting sustainable practices, and ensuring that the costs and benefits of decarbonization are equitably distributed across all levels of the value chain.

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