



Overview

Fashion and apparel:

Priority actions towards a nature-positive future

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Introduction

The fashion and apparel sector represents a significant part of our economies, with the multibillion-dollar sector employing an estimated one in eight workers globally.¹ While the sector has experienced rapid growth over the past few decades, increasing attention has been brought to its impacts on people and the planet. Fashion businesses have been called out for poor labor conditions, child labor, accelerating global greenhouse gas (GHG) emissions, the depletion of freshwater stocks and the degradation of natural ecosystems.

But these impacts also highlight the many dependencies that the sector has on natural resources. Fashion is reliant on sectors like agriculture, mining and forestry for its raw materials, including cotton, wool, cellulose and plastics. Protecting the natural systems which support these sectors is therefore key to securing the supply chains and economic resilience of fashion businesses. To change course and build long-term resilience to climate change and nature loss, the sector needs to shift towards circular and regenerative business models. Changes are

required at all stages of its value chain, necessitating the support of research and development to drive innovation and accelerate this transformation.

To complement ongoing sustainability initiatives, all businesses need to **Assess, Commit, Transform and Disclose** ([ACT-D high-level business actions on nature](#)). They should acknowledge the value of nature to their business; assess and measure their impacts and dependencies on nature; set transparent, time-bound, science-based targets; take actions to address their key impacts and dependencies; and publicly disclose performance and other relevant nature-related information.

This overview provides a sector-level summary of potential key impacts and dependencies on nature. Importantly, it also sets out the priority actions that all businesses should take now to **transform** and ensure the fashion sector plays its role in halting and reversing nature loss by 2030 - the mission at the heart of the [Kunming-Montreal Global Biodiversity Framework](#).

Scope of this overview

This overview covers the full value chain of businesses in the fashion and apparel sector ([SICS code: CG.1](#)), from raw material production of both natural and synthetic fibers to the end of life of products.

Fashion and apparel value chain

1. RAW MATERIAL PRODUCTION



2. MATERIAL MANUFACTURING



3. TRANSPORT AND RETAILING



4. PRODUCT USE



5. END OF LIFE



Potential collection and material reuse

Nature-related impacts

Fashion businesses should direct their efforts towards addressing the most significant impacts on nature in their operations and value chains, namely:



- **Freshwater use** – Large quantities of water are used at all stages of the garment lifecycle - especially during raw material production and material manufacturing. This causes the depletion of groundwater and surface water (especially in high stressed basins), which affects local ecosystems and threatens local communities' livelihoods.
- **Soil exhaustion** – Inefficient water usage and management, monoculture farming and chemical use all lead to soil exhaustion, whereby the soil is no longer able to support plant life. This is most prominent in cotton cultivation.
- **Land use change and degradation** – The expansion of agricultural crops for plant-based fibers and the conversion of land for cattle ranching drive deforestation, accelerate the release of greenhouse gases into the atmosphere, and affect local ecosystems and wildlife.
- **Exploitation and loss of species** – The harvesting of furs, skins and leather results in species loss, as do habitat loss and lethal management in response to human-wildlife conflict. This in turn disrupts the balance in local species populations.
- **Pollution** – Pollution occurs at every stage of fashion production and consumption from the use of industry pollutants of concern during raw material production to microfiber shedding at end of life, fashion businesses contribute to pollution throughout the lifecycle of garments, contaminating land, ocean, freshwater and the atmosphere.

Nature-related dependencies

Like many other sectors, fashion is dependent on a number of ecosystem assets, flows and services to function and grow as a sector. In particular, fashion companies rely heavily on:

- **Fibers and other materials** – The production of garments requires materials such as cotton, viscose, wool, leather, silk, rubber, dyes and metals. Some of these are derived from plants and rely on pollination for their production. Many also require plant, animal and algal material for fodder and fertilizer use.
- **Freshwater** – Freshwater is essential throughout the fashion value chain, from the irrigation of crops or mining of raw materials to manufacturing processes and consumer washing.
- **Soil quality** – From increasing productivity and yields to capturing carbon, healthy soil is crucial to growing agricultural crops for natural fiber production. This can also lead to more resilient crops that are better able to withstand droughts and other challenges.
- **Energy** – The fashion sector relies on energy feedstocks throughout its value chain, from growing raw material to manufacturing processes, retail and consumer washing.

These dependencies strengthen the business case to invest in the protection and restoration of nature.



Priority actions and opportunities

The fashion sector has begun making progress in tackling its contributions to climate change. Now is the time for the sector to also take bold action to reverse nature degradation and biodiversity loss. As a business in the fashion and apparel sector, you can reduce your company's negative impacts on nature, mitigate risks to your operations and unlock commercial opportunities by prioritizing five key actions:

- 1. Avoid and reduce the use of high-impact or uncertified materials** – use [Textile Exchange's Preferred Fiber and Material Matrix](#) to identify more sustainable materials. Explore innovative low-impact alternatives, follow robust sustainability standards, and implement traceable and responsible sourcing policies (such as deforestation-free and conversion-free policies).
- 2. Avoid and reduce the use of hazardous chemicals across your supply chain** – conduct thorough assessments and use the [Restricted Substances List \(RSL\)](#) and [Manufacturing Restricted Substances List \(MRSL\)](#) to control and avoid the use of hazardous chemicals throughout your manufacturing process.
- 3. Avoid and reduce freshwater use through sustainable water management** – Implement water-efficiency technologies, optimize production processes, re-use effluent water and innovate to avoid water use. This can both lessen your company's contribution to water stress and build resilience against water shortages.

4. Restore degraded land and move towards regenerative agricultural practices – Work with your supply partners, conservation experts and local communities to recreate the conditions necessary for the natural recovery of soils, vegetation and wildlife and encourage the adoption of regenerative farming practices to prevent future nature degradation.

5. Transform your business model and build for circularity – Decouple your company's value creation from the extraction of new resources by considering the entire lifecycle of final products at design stage, enabling recovery and reuse,² stopping over-production and discouraging over-consumption. Engage directly with your suppliers, local government and consumers.

Importantly, efforts to deliver these priority actions and transform the sector must be delivered in alignment with a just and equitable transition, including meaningful dialogue with affected groups, such as employees, local communities, Indigenous Peoples and marginalized communities. While these five actions are crucial in mitigating the nature and climate risks faced by the fashion sector, they could also help it realize huge commercial opportunities from moving to a circular fashion system – estimated by the Ellen MacArthur Foundation to reach USD \$560 billion.³

Adopting the priority actions can help businesses contribute to societal and environmental objectives, including the Global Biodiversity Framework (GBF) and the Sustainable Development Goals (SDGs). [Read the GBF-SDG mapping to see how the priority actions can contribute to these objectives.](#)



Resources

This overview was derived from the Business for Nature report [“Fashion and apparel: Priority actions towards a nature-positive future”](#).

The following **sector-specific guidance and tools** are currently available to businesses in the fashion sector:

- [Apparel Sector Guide](#) (Capital’s Coalition)
- [Material Exchange Index](#) (Textile Exchange)
- The TNFD’s resources (v1.0 available from September 2023) including for example LEAP – Evaluate Priority Dependencies and Impacts; Nature-related Risk and Opportunity Management and Disclosure Framework - Additional Guidance for Textiles and Apparel
- [A fashion, textile and apparel sector primer on the first science-based targets for nature](#) (Little Blue Research, CISL)
- [Biodiversity Strategy Tool Navigator](#) (The Fashion Pact and Conservation International)
- [Fashion Nature Risk Lens](#) (The Fashion Pact and Conservation International)

- [Eau Courant: Water Stewardship and Apparel and Textiles](#) (WWF and H&M Group)
- [Avant-Garde: The Water Risks and Opportunities Facing Apparel and Textiles Clusters](#) (WWF and Open Supply Hub)
- Relevant chemical and wastewater management guidelines:
 - o [Restricted Substances List](#) (RSL)
 - o [Manufacturing Restricted Substances List](#) (MRSL)
 - o [Zero Discharge of Hazardous Chemicals \(ZDHC\) Management System Framework](#)
 - o [Zero Discharge of Hazardous Chemicals \(ZDHC\) Wastewater Guidelines](#)

The following **organizations and coalitions** also provide useful information for the sector:

- The [Textile Exchange](#) and the [Fashion Pact](#)

For additional sector-agnostic resources, please refer to Business for Nature’s [High-level Business Actions on Nature](#).

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References

¹ [Facts and Figures: Who Makes Our Clothes?](#)
(Common Objective)

² [Kicking circular fashion into high gear](#)
(WBCSD, 2023)

³ [Fashion and the circular economy](#)
(Ellen MacArthur Foundation)