Forum:	Sustainable Development Commission (SDC)
Issue:	Reducing the Environmental Impact of the Garment and Textile Industry [SDG12]
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Introduction

The garment and textile industry is responsible for up to 8 percent of global greenhouse gas emissions, and every second, the equivalent of a garbage truck full of clothes are burnt or buried in the landfill[3] . This industry is both crucial and problematic – it manufactures clothing for billions, provides livelihoods to hundreds of millions across farms, dye houses, mills, and cut-and-sew lines, impacting around 430 million people[2], as well as determining export earnings for countries.

However, it is one of the most resource intensive and pollution generating industries in the world. To make a single cotton t-shirt, 2,700 litres of fresh water are required, and according to estimates, this would be enough to meet one person's drinking needs for 2.5 years[4]. Moreover, a single laundry wash of polyester clothes can release up to 700,000 microplastic fibres that would eventually end up in the food chain[6].

Over decades, unsustainable practices such as resource-intensive production, excessive chemical use, fast fashion, and massive textile waste have created deep environmental harms, affecting ecosystems, water supplies, and carbon emissions. Addressing these systemic issues requires coordinated international action, innovative policies, and collaboration. It is essential to mitigate this industry's environmental footprint in order to achieve the sustainable development goal 12 - responsible consumption and production.

Definition of Key Terms

Fast Fashion

Clothes that are made and sold cheaply, so that people can buy new clothes often[1] – this significantly contributes to environmental degradation through overproduction and short usage cycles.

Sustainable Textiles

This term refers to using materials designed to minimize environmental impact and promote ethical production practices. Their production involves using renewable or recycled resources and methods that reduce water, energy consumption, and harmful chemicals[11].

Circular Economy

A model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible.

Chemical Pollution

The increase in our environment of chemical pollutants that are not naturally present[10]. In terms of the textile and garment industry, this happens usually through dyeing, processing, and finishing textiles, damaging ecosystems and human health.

Background Information

Historical context and industry growth

Textile industries have historically been a common first step in the industrialization process. For example, traditional handicraft textile manufacturing in Great Britain became mechanized during the Industrial Revolution, a transformation that contributed to rapid economic growth.

The modern textile and garment industry grew rapidly post-industrial revolution, scaling up through mechanization, global trade, and consumer demand. In recent decades, globalization and fast fashion have increased production, prioritising speed and low cost often at the expense of the environment. On the other hand, firms are starting to look into more sustainable textiles, but there is the fundamental issue with the fast fashion business model, where revenues are based on selling more. This means retailers must constantly release new collections to maintain profits[8].

Recent developments and environmental harms

Due to the recent rise of fast fashion, the environmental harms have been amplified. For example, famous brands like Zara are offering 24 new clothing collections each year, and H&M between 12 and 16. This has led to consumers to see cheap clothing items increasingly as perishable goods that are 'nearly disposable', and that are thrown away after wearing them only seven or eight times[6].

The fashion industry uses up huge amounts of water and resources – it requires 2,000

gallons of water to make a typical pair of jeans[8], as well as contributing to approximately 10 % of global carbon emissions. Chemical pollution is also commonly seen, as textile dyeing releases hazardous chemicals, often untreated, into water systems, damaging ecosystems and eventually harming human health. It is the second largest polluter of water globally[8]. Washing such clothing will release microplastics into water systems, accumulating in marine ecosystems and entering the food chain. Consumption of such microplastics potentially leads to serious health issues, including various cancers, respiratory disorders, and more[12]. Another clear issue is the generation of waste, with millions of tonnes of clothing ending up in landfills and incinerated which has been amplified by fast fashion.

Previous attempts to solve the issue

Notable international responses include the UN Environment Programme (UNEP): Advocating for circular economy approaches, The International Day of Zero Waste was adopted by the UN General Assembly on 14 December 2022. This aims to promote sustainable production and consumption patterns and encourage a shift towards a lifecycle approach, so no materials or resources go to waste. The day is facilitated by UNEP and UN-Habitat[8].

Other organizations such as the UNIDO (United Nations Industrial Development Organization): supporting all stakeholders in the textile value chain by providing services, including capacity building, advice on adequate technology, product diversification, identification of market opportunities, investment promotion and policy support.

However, attempts vary significantly between high-income, middle-income, and low-income countries, often constrained by financing, infrastructure, and regulatory frameworks. Many other regional areas such as the EU have also attempted to tackle this issue.

Major Countries and Organisations Involved

UNEP (United Nations Environment Programme)

Includes the UNEP Textile Initiative, leads environmental guidance for sustainable fashion and textile life-cycle approaches, transitioning to a circular textile value chain.

UNIDO (United Nations Industrial Development Organization)

UNIDO facilitates sustainable manufacturing transitions in developing economies. They provide services including capacity building, technology advice, product diversification,

identification of market opportunities, investment promotion and policy support, focusing on the development of a more sustainable future of fashion.

UN Alliance on Sustainable Fashion

Coordinates between UN bodies, working in fashion and promoting projects and policies that ensure that the fashion value chain contributes to the achievement of the Sustainable Development Goals' targets[7].

EU (European Union)

Through its Green Deal and Circular Economy Action Plan, driving policy and regulation focused on textiles. It plans to completely reach a circular economy by 2050.

China

As the world's largest textile producer, China plays a critical role in determining industry standards and conditions. It is well known for its efficiency and competitiveness in the market, and many fashion firms depend on China's factories to keep up on demand.

Bangladesh

Another major textile producer, well known for the low costs of production and high labour force. This industry is also one of the main sources of this country's growth, where efforts are ongoing to improve environmental performance.

United States

A major market and influencer of the fashion industry, also the second largest exporter of textile-related products. It is leading globally in textile research and development.

Viable Solutions

A common but crucial measure is to enforce regulation on the disposal of harmful chemicals and limitations on water use across the industry. Standards and legislations could be set, such as the EU's REACH framework which tackles chemical pollution. Building on these, member states can create wastewater treatment systems in factories, limiting or preventing the discharge of dyes and finishing agents into water sources. Countries should also facilitate the low-water or waterless dyeing technologies, alongside water recycling and reuse systems to promote a circular economy.

It is also necessary to educate consumers to ensure change in the demand. Public campaigns can highlight sustainable consumption practices such as capsule wardrobes, prioritising quality over quantity, and reducing unnecessary purchases. In parallel, governments can encourage retailers to adopt environmental labelling schemes, helping consumers make informed choices and raising awareness of the impact of fashion on the environment. Such efforts reinforce the importance of shifting societal norms around consumption.

Incentives can also be provided to suppliers, such as government subsidies to encourage biodegradable materials. For example, H&M is currently working on producing items from cupro - a biodegradable alternative that is created from cotton waste (Hanson). Keeping sustainable textiles in mind, promoting a circular design to extend product lifespans could be another solution. Garments should be created with durability in mind, as currently fast fashion garments are of low quality which forces consumers to continue purchasing new clothes. Organizations can choose to support certification schemes, setting standards for what textiles can be sold in the market, and ensuring transparency and traceability of raw materials.

At the same time, policies could be established where firms support clothing return programmes, rental services, resale markets, all of which reduce unnecessary waste. This will help shift consumer habits away from a fast fashion model and extend product lifespan.

These solutions can serve as origin points for resolution clauses—such as urging member states to adopt circular economy policies, invest in green manufacturing, and encourage global textile transparency.

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