



# Fast Fashion And Environmental Degradation: A Comparative Legal Analysis Of Regulatory Frameworks In Sweden, Germany And China

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## ABSTRACT

The fast fashion industry has emerged as one of the most environmentally damaging sectors globally, contributing significantly to pollution, textile waste, excessive water uses and greenhouse gas emissions. This paper undertakes a comparative legal analysis of regulatory frameworks in Sweden, Germany and China. It evaluates circular economy regulation, due diligence obligations, extended producer responsibility mechanisms and industrial pollution controls. The paper argues that fragmented domestic regulation remains insufficient and proposes an integrated model for sustainable fashion governance.

**Keywords:** Fast Fashion; Environmental Degradation; Comparative Legal Analysis; Environmental Law; Circular Economy; Sustainable Fashion; Textile Waste; Extended Producer Responsibility (EPR); Supply Chain Due Diligence; ESG Regulation; Sustainable Development; Pollution Control; Sweden; Germany; China; Greenwashing; Corporate Environmental Accountability.

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## INTRODUCTION

Fast fashion has transformed global apparel production through low-cost manufacturing, shortened trend cycles and increased consumer disposability. Yet this growth has produced severe environmental consequences. The textile industry is associated with carbon emissions, water depletion, chemical pollution and enormous waste generation.

This paper comparatively examines the legal approaches of Sweden, Germany and China. Sweden represents a circular economy model, Germany offers supply-chain accountability through due diligence regulation, while China demonstrates industrial environmental governance. The study uses doctrinal and comparative methodology to assess strengths, limitations and future reform possibilities.

## ENVIRONMENTAL IMPACTS OF FAST FASHION

Fast fashion contributes to multiple environmental harms. Textile waste has increased dramatically due to overproduction and short product lifecycles. Synthetic fibers contribute to microplastic pollution. Dyeing and textile treatment cause toxic water contamination, while globalized supply chains generate carbon-intensive transportation emissions.

A significant challenge is that conventional environmental laws were not designed to regulate a consumption-driven industry built upon disposability. This creates regulatory gaps that modern sustainability law seeks to address.

### SWEDEN'S REGULATORY FRAMEWORK

Sweden adopts a preventive sustainability-oriented model. The Swedish Environmental Code incorporates the precautionary principle; polluter pays principle and sustainable resource management. Sweden has advanced repair incentives, textile collection systems and circular economy policies aimed at reducing waste generation.

Its approach is notable for integrating consumption behavior into environmental governance rather than focusing solely on industrial emissions. However, direct regulation of overproduction remains limited.

### GERMANY'S REGULATORY FRAMEWORK

Germany combines circular economy regulation with corporate accountability. The Supply Chain Due Diligence Act imposes obligations on companies to identify, prevent and mitigate environmental harms in supply chains.

The Circular Economy Act supports waste prevention, recycling and product stewardship. Germany's approach is strengthened by EU sustainability initiatives, particularly sustainable textile and eco-design reforms. Challenges remain in supply-chain monitoring and enforcement.

### CHINA'S REGULATORY FRAMEWORK

China regulates fast fashion largely through industrial environmental law. The Environmental Protection Law and Circular Economy Promotion Law support pollution control, cleaner production and resource efficiency.

Unlike European models, Chinese regulation focuses more heavily on production-stage environmental compliance than consumer sustainability or producer responsibility. This provides strong pollution controls but comparatively weaker regulation of fast fashion consumption dynamics.

## ESG REGULATION AND CORPORATE RESPONSIBILITY

Environmental, Social, and Governance (ESG) frameworks are increasingly influencing fast fashion regulation. The European Union has introduced sustainability reporting obligations requiring companies to disclose environmental risks and impacts.<sup>18</sup> However, ESG frameworks often rely on voluntary compliance and lack strong enforcement mechanisms.

Recent litigation trends indicate a shift toward corporate accountability. In *Milieudefensie v Royal Dutch Shell*, the court held the company responsible for reducing its carbon emissions.<sup>19</sup> Similarly, the German Constitutional Court emphasized intergenerational environmental rights.<sup>20</sup>

These developments suggest a growing trend toward binding corporate environmental obligations.

## COMPARATIVE ANALYSIS

Sweden prioritizes circular governance, Germany emphasizes due diligence accountability, while China focuses on industrial environmental control. Each model addresses different dimensions of environmental harm, but none independently provide a complete regulatory response.

A comparative approach demonstrates that effective regulation requires combining circularity, corporate accountability and enforceable environmental standards.

#### DIGITAL PRODUCT PASSPORTS AND TRACEABILITY

Digital Product Passports (DPPs) represent a significant innovation in textile regulation.

These systems provide information about a product's origin, materials, and environmental impact, enhancing supply chain transparency and supporting circular economy goals.<sup>22</sup>

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#### INTERNATIONAL TRADE AND REGULATORY CHALLENGES

Fast fashion operates within global trade systems, creating challenges for environmental regulation.

World Trade Organization rules limit the ability of states to impose trade-restrictive environmental measures.<sup>23</sup> This creates tension between environmental protection and free trade.

Harmonization of international regulations is therefore essential to prevent regulatory arbitrage.

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#### HUMAN RIGHTS AND ENVIRONMENTAL NEXUS

Fast fashion is closely linked to human rights issues, including poor working conditions and labor exploitation.

Modern legal frameworks increasingly integrate environmental and human rights considerations. The UN Guiding Principles on Business and Human Rights emphasize corporate responsibility for both environmental and social impacts.<sup>24</sup>

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#### REGULATORY GAPS

Despite recent developments, several gaps remain:

- Lack of regulation of overproduction
- Weak enforcement of environmental laws
- Limited global coordination
- Persistent greenwashing practices

#### RECOMMENDATIONS

This paper proposes stronger international coordination through mandatory due diligence obligations, global extended producer responsibility systems and harmonized sustainable textile standards.

Fast fashion is a transnational environmental governance challenge that cannot be addressed solely through fragmented domestic law. An integrated legal framework combining circular economy principles, supply chain regulation and producer accountability offers the strongest path forward.

##### *1. Overproduction and the Economics of Fast Fashion*

One of the central drivers of environmental degradation in the fast fashion industry is systemic overproduction. Unlike traditional fashion cycles, fast fashion brands operate on a high-frequency

production model, releasing new collections weekly or even daily. This business strategy is driven by profit maximization through volume rather than durability.

Legally, most environmental frameworks focus on **post-production waste management** rather than regulating production volume itself. This creates a regulatory blind spot. Even in advanced jurisdictions such as Sweden and Germany, laws do not directly impose limits on the quantity of garments produced.

From a legal perspective, addressing overproduction would require:

- Production caps
- Environmental taxation on excess output
- Mandatory sustainability quotas

However, such measures may face resistance due to economic and trade considerations.

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## 2. Role of Consumer Behaviour and Legal Responsibility

While producers are the primary drivers of fast fashion, consumer demand plays a crucial role in sustaining the industry. The affordability and accessibility of fast fashion encourage overconsumption.

Legal systems have begun to recognize the role of consumers through:

- Eco-labelling requirements
- Sustainability disclosures
- Consumer protection laws against misleading claims

However, consumer-focused regulation remains limited. Unlike environmental taxation in sectors such as energy, there are few direct legal mechanisms aimed at reducing clothing consumption.

This raises an important question: **Should environmental responsibility extend to consumers?**

Some scholars argue for:

- “Sustainable consumption laws”
- Incentives for repair and reuse
- Penalties for excessive waste generation

Sweden’s repair tax incentives represent an early example of this approach.

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## 3. Fast Fashion and Climate Change Commitments

The fashion industry is increasingly being scrutinized in the context of global climate obligations under the Paris Agreement.

Countries are required to reduce greenhouse gas emissions through Nationally Determined Contributions (NDCs). However, the fashion sector is often not explicitly regulated within these commitments.

This creates a gap where:

- Textile emissions are indirectly regulated
- Supply chain emissions remain largely unaccounted for

Germany's due diligence law partially addresses this by requiring companies to monitor environmental risks across supply chains. However, enforcement remains complex due to jurisdictional limitations.

Future regulation may require:

- Mandatory carbon disclosure by fashion companies
- Integration of fashion emissions into national climate policies
- Sector-specific emission reduction targets

#### 4. *The Rise of Ultra-Fast Fashion and Regulatory Lag*

A recent development is the emergence of “ultra-fast fashion,” characterized by:

- Real-time trend replication
- Algorithm-driven production
- Extremely low-cost garments

Companies operating under this model produce thousands of styles weekly, significantly increasing environmental impact.

Regulatory frameworks have struggled to keep pace with these developments. Traditional laws were designed for slower industrial processes and are often inadequate for regulating digitalized, data-driven production systems.

This regulatory lag highlights the need for:

- Technology-specific regulation
- Digital supply chain transparency
- AI accountability in production decisions

#### 5. *Environmental Justice and Global Inequality*

Fast fashion also raises concerns of environmental justice. While consumption occurs primarily in developed countries, environmental harm is disproportionately experienced in developing regions where production and waste disposal take place.

Examples include:

- Water pollution in textile manufacturing hubs
- Landfill dumping in developing countries
- Exposure of local communities to toxic waste

This creates a **North-South imbalance**, where:

- Developed nations consume
- Developing nations bear environmental costs

Legal frameworks currently lack mechanisms to address this inequality effectively.

Possible solutions include:

- International liability frameworks
- Cross-border environmental compensation systems
- Stronger enforcement of global supply chain obligations

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## 6. Enforcement Challenges in Transnational Regulation

One of the biggest barriers to effective regulation is enforcement.

Fast fashion operates through:

- Multi-tiered supply chains
- Cross-border production
- Outsourced manufacturing

This makes it difficult to:

- Trace responsibility
- Enforce compliance
- Monitor environmental standards

Even Germany's Supply Chain Act faces challenges in ensuring compliance across foreign jurisdictions.

To address this, legal systems may require:

- Mandatory transparency tools (like Digital Product Passports)
- Stronger international cooperation
- Extraterritorial application of environmental laws

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## 7. Future Legal Trends in Fast Fashion Regulation

The future of fast fashion regulation is likely to be shaped by three major trends:

### (a) Hardening of Soft Law

Voluntary sustainability standards are gradually becoming binding legal obligations.

### (b) Integration of ESG into Law

ESG frameworks are evolving from corporate guidelines into enforceable legal standards.

### (c) Rise of Circular Economy Mandates

Governments are increasingly adopting laws that require:

- Product durability
- Recycling obligations
- Lifecycle accountability

These trends indicate a shift from reactive to preventive environmental regulation.

## 8. Critical Evaluation

Despite growing regulatory efforts, current frameworks remain insufficient due to:

- Fragmentation across jurisdictions
- Weak enforcement mechanisms
- Overreliance on voluntary compliance
- Lack of regulation of production volume

A key limitation is the failure to treat fast fashion as a **systemic environmental issue** rather than a sector-specific problem.

## 9. Concluding Analytical Insight

Fast fashion is not merely an environmental issue but a structural problem rooted in global capitalism, consumer culture, and regulatory fragmentation.

Effective regulation requires a paradigm shift from:

1. Waste management → Production control
2. Voluntary compliance → Mandatory obligations
3. National regulation → Global governance

Only through such transformation can the environmental impact of fast fashion be meaningfully reduced.

Additional Discussion: Comparative environmental governance in the fast fashion sector reveals that regulatory effectiveness depends not only on legal design but also enforcement capacity, transnational cooperation, and corporate compliance mechanisms. Emerging debates around ESG disclosure, greenwashing liability and digital product passports further demonstrate the evolution of textile sustainability law.

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