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The environmental impact of the fashion sector

The fashion sector also denoted apparel, clothing or garment sector, including shoe wear and accessories, is one of the sectors with the most negative impact on the environment globally. This impact occurs across all life-cycling phases of garments starting from the fibre and fabric production, to the dyeing, the assembly, the distribution, the use phase and ending in the after-use phase.

With respect to fibre production, the two most commonly used fibres today are synthetic fibres and cotton, with the former making up 64% of the global market and the latter 24%. Synthetic fibres are oil-based and very energy intensive. In the case of polyester, the most common synthetic fibre, production alone releases more than 700 billion kg of greenhouse gas emissions each year. In total, the fashion sector is responsible for 8-10% of global greenhouse gas emissions. This is more than all international flights and maritime shipping combined and is similar in size to the total annual emissions of the European Union. Furthermore, the industry is linked to several water issues. The cultivation of conventional cotton, the second most common fibre, is highly water intensive. On average, 10.000 litres of water are required to produce one kg of cotton, which in turn is needed to produce one pair of jeans. Furthermore, cotton cultivation has a significant impact on ecosystems. Despite only covering 3% of the world's arable land, cotton farming is responsible for 24% of insecticides and 11% of pesticides. In addition to chemicals used in cotton cultivation, toxic chemicals are also widely applied in the dyeing phase. As a consequence, 20 percent of global wastewater are caused by the fashion sector.

With respect to the use phase, a major environmental issue concerns the washing of polyester and other oil-based fibres. Around half a million tonnes of plastic microfibers shed during the washing of synthetic fibres and annually end up in the ocean. Regarding the after-use, the sector is characterized by a very low level of recycling. Nearly three-fifths of all clothing produced ends up in incinerators or landfills within a year of being made. Globally, clothing utilisation has decreased by 36% compared to 15 years ago and in a country such as China it even decreased by 70% over the same period. In total, 85% of all textiles end up in landfills or are incinerated.

In addition to the significant environmental impact the sector already has today, it is also crucial to consider possible future developments. The apparel market is growing rapidly – over the last decade an average of 5.5% annually. It is now worth an estimated \$2.4 trillion and would be the world's seventh-largest economy if ranked alongside individual countries' GDP. Yet, there is much more growth to come. An estimated two billion will enter the global middle class until 2030, of which the vast majority, almost 90%, will live in Asia. These new entrants will aspire a similar lifestyle as it is known in developed markets, including a similar consumption pattern when it comes to fashion. This is a pattern of fast fashion. The average consumer is now already purchasing 60 percent more items of clothing compared to 2000, but keeping each garment half as long. Translating these developments

to the whole sector, it is estimated that global fashion consumption will increase by 63% until 2030. If there is no major change to production processes and consumption pattern, then the environmental impact would increase accordingly.

The environmental dimension of the fashion sector is directly linked to several Sustainable Development Goals (SDGs). This includes the aspects of water-use efficiency, sustainable withdrawals, and water pollution under SDG 6 (Clean Water and Sanitation), the release of chemicals, efficient use of natural resources as well as waste and recycling under SDG 12 (Responsible Consumption and Production), climate change mitigation under SDG 13 (Climate Action), marine pollution under SDG 14 (Life below Water), and the protection of terrestrial ecosystems under SDG 15 (Life on Land). Given these linkages, the fashion sector is thus crucial for achieving the 2030 Agenda for Sustainable Development.

Current involvement of governments

Within UNECE member States, several governments have started initiatives, which aim to move the fashion sector onto a path of sustainability.

The **Partnership for Sustainable Textiles** (in German: Bündnis für Nachhaltige Textilien) is a multi-actor partnership made up of companies, unions, non-governmental organizations, and standards organizations, as well as the Federal Government of Germany. It aims to jointly achieve improvements alongside the entire textile supply chain, setting ambitious social and environmental goals. The actors are pursuing these targets practically by the means of individual measures by members and joint Partnership initiatives in the production countries.

Similar developments can be observed in the Netherlands, where a broad coalition of businesses and other organizations signed an agreement on international responsible business conduct in the garment and textile sector. This so-called **Agreement on Sustainable Garment and Textile** is aiming to improve working conditions, prevent pollution, and promote welfare in production countries. The German and Dutch initiatives signed a cooperation agreement in order to align their sustainability criteria and standards.

In the UK, a notable initiative funded by the government is the **Sustainable Clothing Action Plan 2020**, which provides a collaborative framework and voluntary commitment to deliver industry-led targets for reducing the use of resources in the clothing industry. They are centered around carbon emissions, water usage, waste and landfill. Over 80 organizations across the UK have made a pledge to hit industry-led targets through the SCAP 2020 commitment. The National Chamber for Italian Fashion (in Italian: Camera Nazionale della Moda Italiana) has created a **Manifesto for the sustainability of Italian Fashion**, which aims at environmental sustainability by promoting raw materials and fabrics with a high environmental and social value, and minimizing the emission of pollutants and the consumption of energy and natural resources.

As a backdrop to all these national initiatives serves the OECD Due Diligence Guidance for Responsible Business Conduct, which provides practical support to enterprises and due diligence recommendations to avoid and address adverse impacts related to human rights and the environment. It also seeks to promote a common understanding among governments and stakeholders on due diligence for responsible business conduct.

Despite these individual initiatives by governments a coordinated and comprehensive approach by this group of stakeholders is still missing.