Fashion's Environmental Impact

Raw Materials	Environmental Impact
Natural Fibres	Precious rain forests are cleared to make way for livestock and arable farming. Fragile natural habitats are destroyed leading to species extinction. An estimated 93 billion cubic metres of water is consumed annually, often in locations where it's in short supply. The use of highly toxic pesticides and fertilizers – cotton alone accounts for 200,000 tonnes of pesticides and 8 million tonnes of fertilizer every year. Fertilizers and pesticides pollute fresh water supplies, exposing the poorest farm workers to hazardous chemicals and exploitation. Green House Gas emissions are 17 times greater by weight than the fabric produced - more than all international flights and shipping combined.
Leather	Cattle farming plays a significant role on deforestation, and is a major source of greenhouse gas emissions. Although in this case the food industry bears a greater share of the responsibility since more than 50% of hides go directly to landfill and are never processed into leather. The processing of hides into leather is a highly industrialised process requiring vast quantities of water, highly toxic chemicals and large amounts of energy. Although many tanneries have made great strides in eliminating pollution, this is by no means true of less regulated markets where toxic chemicals are still allowed to pollute rivers and the local environment. Tanning is a preservative process which prevents decomposition by making it difficult for bacteria and fungi to break down discarded leather.
Synthetics	60% of all clothing is made from synthetics. The majority of synthetic fabrics are based on petrochemicals, the single most significant contributor to global warming. Ninety eight million tonnes of oil are consumed annually in the production of fertilizers, pesticides and synthetic fibres. Many of the chemicals used in the production of synthetic fibres are toxic and require large amounts of energy and water to process. Synthetic fibres are often blended with natural fibres and subjected to the same dyeing processes, producing fabrics that are difficult if not impossible to recycle. The majority of synthetics will not biodegrade and either have to be incinerated (releasing toxic gasses) or buried in landfill.
Processing	
Dyeing & Treatments	Dyes used in excess quantities are discharged into waterways. Some contain heavy metals like lead, others contain known carcinogens that are potential health hazards for workers and consumers. Treatments, including water proofing and stain protection, can persist in the environment - research has connected them to impacts on the immune system and fertility. The use of large quantities of solvents, particularly in the production of viscose and the extraction of cellulose, have been linked to several severe health conditions. Biocides used to deodorise fabrics and prevent bacterial growth are causing concern that they may contribute to the development of bacteria resistant antibiotics.
Manufacturing	
	Poor working conditions and exploitation of labour in developing countries, particularly in relation to fast fashion. Highly energy intensive over-production contributes to the industry's massive carbon emissions. Manufacturing supply far exceeds demand, with an estimated global stockpile of clothing sufficient to clothe the world for the next ten years. The demand for fast fashion has led to lower quality standards and clothing becoming a disposable commodity. Factories in developing countries frequently pollute the local environment, damaging air quality, and creating large volumes of waste that is often dumped into rivers or landfill.
Distribution & Retail	
Packaging	The packaging industry is a significant contributor to greenhouse gasses and environmental degradation – agriculture associated with paper and cardboard production, manufacturing packaging (including plastics), consumer disposal and subsequent pollution.
Transport	Shipping products from factories to retail distribution, often involving international transport by air or sea, accounts for 8% of global greenhouse gas emissions. At current rates of growth these carbon emissions will double by 2050. Road freight requires well maintained road network, ports and other infrastructure that is costly to build and maintain. It also increases road congestion, air pollution and contributes disproportionately to the number of fatal accidents.
Marketing	Marketing can and should play a positive role in encouraging consumers to expect better environmental standards from brands. However, it has also enabled clients to indulge in Green Washing, portraying themselves as maintaining high standards without the cost and inconvenience of actually doing so. Fashion marketing is the engine which drives the culture of excess consumption, promoting and validating a belief among consumers that clothes are cheap, guilt free, disposable items.
Retail	Retailers depend on customers, it's in their economic interest to promote excess consumption. In many respects they are in an invidious position but if fashion is to have a more sustainable future, the goods they stock will have to be curated with far more care and the existing profit driven model find a more balanced alternative.
Product Lifespan	Up to 60% of the energy used in the lifecycle of clothing is the result of washing and drying. Washing synthetics is responsible for the release of billions of plastic microfibers polluting our oceans at a rate of half a million tonnes annually. Over a quarter of all clothing is thrown away after being worn less than a dozen times. A significant proportion won't have been worn at all. The majority of discarded clothing ends up in landfill, where, due to the high proportion of synthetic materials, it will not degrade. Large amounts of used clothing is also exported to developing countries where it is resold. While this appears to offer a 'green' recycling solution, the predominance of poorly made fast fashion items means that increasingly the stock is degraded and unusable. As yet only a small proportion of discarded clothing is recycled or repurposed. The blended nature of many fabrics as well as mixture of different materials used in a single item make this process difficult and expensive.