



SUSTAINABILITY ISSUES AND PRACTICES IN FASHION SUPPLY CHAIN- A REVIEW

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ABSTRACT The world is fast moving towards in an era where to maintain and save our resources and planet sustainability is required in all practices of living. The issues and agendas pertaining Sustainability are very sensitive especially in fashion supply chain, due to vicious competition and conflict, rigorous resource use, and the exposure of extremely poor labor and harsh situations in some region. Sustainable fashion has become a movement all over the world to reduce the waste to save the planet. Fashion itself is a biggest contributor in terms of polluting the environment. The aim is to bring the downshift in overall global production and utilization process to make an industry more sustainable in long run. Lot of work has been done and major researches are going on to develop sustainable methods and practices to be used in fashion industry to save the planet. The Fashion and textile industry has been condemned for the harassment of the laborers, destroying the ecosystem, for exploiting the natural resources contributing to huge textiles wastes.

KEYWORDS : Environmental Sustainability, Supply Chain in Fashion and Textile, sustainability issues, sustainability practices.

INTRODUCTION

Sustainability in textiles and fashion is the business practices and methods and ways of manufacturing, taking care of so that our natural resources are intact and we are not destroyed. We are living in an era of instability, environmentally, politically and economically. Textile and fashion industry is a global industry worth 2.4 trillion dollars (1) which employs around 50 million people and is said to be one of the most polluted industry after the oil.

Modern day slavery has become pandemic part of a huge textile and fashion industry.(3) and there is a dearth of transparency across the whole textile and fashion supply chain which has become a major challenge. Therefore sustainability is a necessity in today's world with no option left. There is an urgent need to develop resilience to face global challenges. The resources are diminishing, there is a loss of biodiversity and overall climate change is affecting the industry. We have already crossed critical planetary boundaries and we are close to the edge of the others, whilst fashion industry isn't solely responsible for this, as one of the world's biggest and most impactful industries, it has a pretty challenging & critical role in safeguarding the future generation to come.

Both Fashion and Textile Industry as a whole is one of the major contributors of CO₂ in the environment. During the processing of the textile, huge amount of fossil fuel is consumed which in turn react with oxygen to form carbon dioxide which ultimately contributes to environmental pollution. All these has an impact of climate change which means extreme weather events, sea level continue to rise, many places experiencing longer droughts, threatening foods, eco system and under water supply, one point one billion people lack access to clean water. Areas of forested land has been used cleared for uses such as cotton, cultivation, live stock raising, and cellulosic fibers made from wood. Also clothing production and buying behavior of people have changed. People buy an average sixty percent more items of clothing and million tones of clothing and textiles are thrown away each year and only sixteen percent waste is reduced due to which vast majority of clothing waste end up in landfills. Over fifty percent of workers in fashion are not paid minimum wage, women make up a majority of work force and they particularly are vulnerable to low wages. As per the information received from United Nations Climate Change, 10% of global green house gas emission is contributed by fashion and textile industry in the process of production of clothing and due to its long supply chain distribution. In this paper the researcher is dealing with major issues which are important for exploring the relationship between fashion and sustainability.

MAJOR ISSUES AND CHALLENGES IN SUSTAINABILITY.

1. Climate Change – Fashion and textile Industry are one of the major contributor of the carbon dioxide which already exceeds what is considered by scientists to be safe space. The fashion industry emission are predicted to increase by max than sixty percent over the next few years. The biggest contributor is from production of raw

materials, manufacturing process.

Polyester Production is Carbon Intensive



Fig-1.

2. Water Stress – Fashion is very water desires industry which requires water for growing fibers, production process and washing clothes at home. Unsustainable practices used in growing fibers and in production process are diminishing the underground water, but also contaminating which tends to chemical pollution of water.

It Takes 2,700 Liters of Water to Make One Cotton Shirt

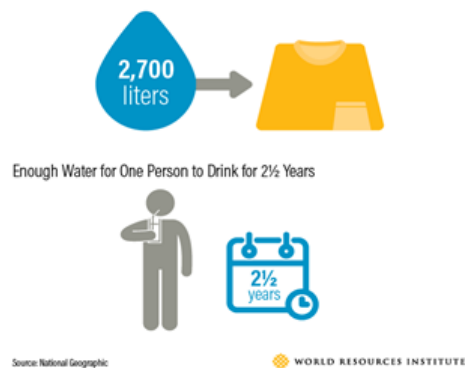


Fig-2

3 Hazardous Chemical & Pollution – The textile and fashion industry uses lot of chemical in processing and finishing. It's a fact that around one fifth of all water pollution is caused by textile processing. Mostly companies and factories are located near river or canals releases chemicals which are hazardous to the environment and to human health, enter into our water ways and into our eco system.

Air Pollutants are a major contributor throughout the fashion supply chain, in farming, processing, manufacturing, shipping and transport. In the production of the synthetic fibers, nitrous oxide emissions are

released into the air and are three hundred times more damaging than carbon dioxide.

4 Land Use & Loss of Biodiversity –

Fashion is a major contributor in loss of habitats and biodiversity. Areas of forested land have been cleared for cotton cultivation livestock raising and cellulosic fibers made from wood. It is predicted that fashion will increase its land use in coming decade. Land used and managed for the development of raw materials results in degradation and desertification.

5 Diminishing Resources – The polyester is made from oil which is finite and polluting resource. The whole fashion and textile industry is extremely energy sensitive and completely dependent on fossil fuels.

6 Consumption and Waste – The clothing production has doubled after 2000. Globally the majority of the discarded clothing ends up in landfills out of which only 20% is collected and reused for recycling. During recent years the clothing production number has doubled and buying behavior has also changed. High end brands earlier producing two main collections are now producing five or six ranges a year. Due to this clothing has become cheaper, so people have been buying more and keeping garments for shorter period of time. Due to this there is an enormous burden on planet.

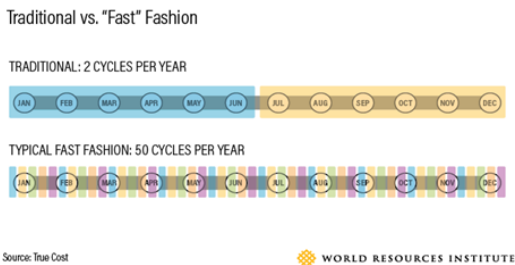


Fig-3

7. Modern Day Slavery –It is the major challenge the fashion industry is facing. In fashion industry people are denied of freedom, security and right of living which is a total violation of human rights. Slavery still thrives all over the world in forms of forced labor, people trafficking and child exploitation and fashion industry is no more exception. Victims of Modern Slavery are trapped in their situation because they are subject to threat, violence, punishment, coercion and deception. The United Nations International Labor Organization estimates around twenty one million people are involved in forced labor at any given time. Fashion is one of the most labor intensive industries, and while there are figures it directly employs at least sixty million, given the lack of transparency across global supply chains.

8. Wellbeing- Fashion industry continues to increase the level and pace of production and consumption which compromises the wellbeing of workers, communities, animals and the environment, touched by the supply chain. Women make up an overwhelming majority of the workforce, they are particularly vulnerable to low wages. Workers are exposed to health and safety concerns – from injury, factories fires and disasters, long hours and exposure to hazardous chemicals. Therefore there is a lot to consider in understanding the relationship between fashion, wellbeing, and sustainability more broadly.

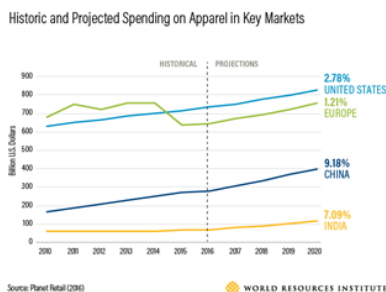


Fig-4

SUSTAINABLE PRACTICES IN FASHION INDUSTRY

Sustainability has become synonymous with environmental activism and is a guiding force against handling environmental pollution.

According to (World Trade Organization, 2008) fashion industry contribution in environmental impact is too high which accounts for 9.3% of world's employees and 4% of worldwide exports.

(De Brito et al., 2008) cites that the production process in fashion industry particularly various phases of dyeing, drying and finishing utilizes major chunk of chemicals as well as natural resources which creates a high environmental impact.

(Myers and Stolton, 1999) states that cotton, wool and synthetics fibers all have an environmental impact because of the extensive use of water, chemicals and pesticides. Synthetic fibers generated from non renewable resources and require adequate amount of energy to produce. The transportation used in the fashion global industry creates environmental impact (Borghesi and Vercelli, 2003).

The ultimate goal of the sustainable fashion movement is to massively slow down production and consumption of garments on the global scale . The key component of sustainable production is the 'replacement of harmful chemicals with environmentally friendly materials' as well as the reduction of 'waste and resource consumption through apparel recycling' (Flower, 2009).

Three crucial elements are necessary to encourage the growth of sustainable fashion: the first is to 'shift consumers' mindsets from quantity to quality by encouraging people to buy high quality items less often'; the second is facilitate production that “does not exploit natural and human resources to expedite manufacturing speed;” and the third is to use consumption to “entail a longer product lifespan from manufacturing to discarding” (Jung et al, 2014).

The Great Beyond Australia based company creates Ecofriendly bamboo clothing which is soft, durable, and breathable and 100% biodegradable so no harm to earth, ultimately sustainable. There is one more Canadian brand Matt & Nat which is a vegan brand and uses sustainable material as 100% recycled plastic bottles and renewable material as cork and rubber for the products.

Adidas joined hand with Parley for the Oceans which addresses the major threats to ocean and created shoes made entirely of reclaimed and recycled yarns and filaments from ocean waste and deep-sea gillnets.

Even H&M also presented Conscious Exclusive collection, made from Bionic Yarn, a recycled polyester made from plastic shoreline waste.

H&M has decided to use 100% organic cotton by 2020. Its also aims to use more and more sustainable materials like recycled polyester, cotton and wood based fibers.

Ananas Anam is a philippnes based sustainable company practicing and producing ecofriendly alternative leather from pineapple leaf fibers.As the byproducts of the pineapple harvest is used therefore the up is that no additional chemicals, pesticides water or land is required.

CONCLUSION –

At the end we can say that sustainability is the major issues in the world especially in fashion industry. As being the second most polluter of the world, it is imperative for the fashion and textile industry to incorporate the best practices to maintain sustainability in the fashion supply chain. Also the industry needs to slow down the consumption and production pattern. Sustainable fashion has immense potential to change the way of production, consumption by balancing the various aspects socially and environmentally and making the planet happy.

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