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Environmental Ramifications of the Textile Industry

It seems to be that fashion trends change almost weekly. Clothing stores are restocked with new clothing constantly, pushing consumers to buy new garments to keep up with changing trends. Magazines and commercials advertise new trends relentlessly, but no one really seems to be talking about the true cost of the ever-changing styles inside those stores. The fashion industry is the world’s largest pollutant, using millions of gallons of fresh water and emitting hazardous chemicals into the atmosphere. The creation and overconsumption of textiles is detrimental to the environment as the waste produced is not managed properly. A push towards the creation of sustainable clothing and international regulations on the management of pollution caused by the creation of clothing are some solutions to aid in the decrease of the environmental degradation.

The creation of cotton clothing is a fairly simple process. First, cotton is harvested, then it is spun to form strong yarn that can be used to weave clothing. Cotton is treated with alkaline to add luster and to strengthen the fibers. Cotton is one of the few natural materials used on clothing, but the overconsumption of cotton depletes natural resources, leading the textile industry to use cheaper synthetic fibers. The most commonly used synthetic fiber in clothing is polyester. Polyester, along with other synthetic fibers (nylon, acrylic, spandex) are made from petroleum (Claudio). The process to make synthetic fibers from petroleum and crude oil release harmful emissions into the air, as well as damaging by-products that are “emitted into wastewaters” (Claudio). The term wastewater refers to the water that was used in the process of
creating synthetic materials, mercerizing cotton, dying the cloth, and the fabric finishing. Dying and fabric finishing consist of dipping the fabric into a bath of chemical water. Once used, the water can be treated chemically, biologically, or physically to remove the dyes and chemicals from the water. The treated water can then be reused in the production of textiles.

The majority of clothing manufacturing occurs in developing or underdeveloped countries. Multiple large companies utilize the fact that outsourcing production is cheap, not weighing in the fact that the inexpensive price is due to inadequate facilities. Developing and underdeveloped countries often lack adequate funds “to purchase and operate costly machinery for appropriate handling of wastewaters” (Madhav). Mismanaging of wastewaters leads to land degradation because the water is usually dumped into the surrounding areas. The lack of proper equipment means that the surrounding environment gets degraded as the waste is not properly managed. Synthetic materials are more commonly used in textiles as they are cheaper than natural materials, and are easier to get a hold of. The manufacturing of synthetic fabrics has a tremendous impact on the environment, as “almost 70 million barrels of crude oil are used in the manufacturing of polyester alone” (Ross). Released fibers from the creation of synthetic fabrics are usually caught in the wastewaters, but those waster waters can sometimes enter into agriculture through the fertilizer (Bomgardner). When washing garments that are made with synthetic materials, microfibers are released into the washing machine water, which goes into oceans and streams, and into the fish in those oceans and streams (Bomgardner). In a California fish market “synthetic fibers were the most common man-made material in fish” (Bomgardner). Synthetic fibers are not only harmful to the environment, but also harmful to people as well, as humans consume microfibers from the fabric through the food consumed.
The overconsumption of fashion also has its effects on the environment as well. Clothing items are not made to last, as fashions change almost weekly. Trend sensitive textiles are pertinent in society, but they have extreme ramifications on the environment, as Americans throw away about 68 pounds of textiles per year, per person (Manchiraju). The massive amounts of textile garbage can be traced to fast pace of changing fashion trends. As trends change almost weekly, consumers feel the need to stay on top of those trends. Fast fashion industries base their styles off of “high street brands” to appeal to their consumers (Manchiraju). Many people want their clothing to seem as if it was purchased from an expensive brand, which drives consumers to “purchase counterfeits” (Madhav). Companies that produce fashion look-alikes are, more often than not, cheaper than the clothing from the companies that set the trend. The cycle of buying clothing that follows the trend, getting rid of that garment that no longer is in style, then shopping for the newest fashion has caused tremendous impacts on the environment. Fast fashion companies outsource manufacturing to countries where the cost of manufacturing is cheaper, but the facilities used for production lack the ability to follow proper waste management procedures. The overconsumption of textiles leads to massive amounts of garments thrown away due to the fast pace of fashion trends changing. Overconsumption also leads to more production of clothing that also degrades the environment.

A way to fix the problem of overconsumption is to shop and produce clothing in a more sustainable way. What that means is that the production of textiles itself is less harmful to the environment and produces clothing that is made to last. This seems to be an easy fix, but has not proven to be so. Companies are attempting to approach a more sustainable textile industry, but are making little headway. To promote sustainable clothing, companies must understand the psychology of the consumer. People want clothing that will stay fashionable throughout
changing trends (Manchiraju). Fast fashion is defined by “a fast response system that encourages disposability” (Joy). Sustainable clothing practices would alleviate the issues caused by fast fashion. The creation of sustainable clothing that is made to last “can lead to a decrease in consumption and, thus, help to ameliorate several environmental issues to a certain extent” (Madhav). The need for more clothing drives the creation of more clothing, usually the articles made do not last longer than six months. Reducing the amount of clothing consumed reduces the amount of clothing produced, which reduces the amount of environmental damage caused by the manufacturing of textiles.

Another solution that would help decrease the damage to the environment is to implement an international policy to regulate the pollution caused by textile factories. There are multiple concerns that arise with an international policy, as there is no one specific way to implement it. China, Vietnam and India produce and export the majority of the U.S.’s consumed clothing. The environmental policies of those countries have been relaxed, until recently, but many of the state-sponsored environmental agencies still lack the ability to crack down on pollution. An international policy would help state-sponsored agencies become more effective in regulating the amount of pollution produced and how waste from factories is managed. The issue about the environment is not one person’s problem: it is everyone's problem.

The fashion industry is the world’s largest pollutant. The chemicals used in dyeing, mercerizing, and producing man-made materials are not disposed of properly, as they end up in agriculture and the ocean. These pollutants are extremely difficult to get rid of, and facilities in underdeveloped and developing countries do not have the tools to manage the waste produced. With the overproduction and overconsumption of textiles leads to massive amounts of chemical and textile waste. The cheap production of clothing means that the actual article of clothing itself
is not made to last, as Americans discard massive amounts of textiles a year. These two factors drive the reasoning that there needs to be international regulations placed on the production and on the importations of textiles. International environmental regulations would hopefully provide facilities with adequate facilities to dispose of harmful chemicals and shut down mills that are harming the environment. All in all, there needs to be a push towards solutions that help remove environmental damage from textile industry. There is only one Earth, so it is everyone’s responsibility to preserve it.
Bibliography


