Reducing Textile Waste in Indonesia: Problems and Recommendations

**Summary**

The rise of fast fashion leads to both overproduction and overconsumption, resulting in piles of textile waste which can cause dangerous emissions to the air, water, and soil. With the toll that the industry takes on the environment, changes are needed. This problem cannot be solved by just one party; regulators, producers, and consumers have to work hand in hand. Better enforced regulations, sustainable production, and mindful consumption paired with technology improvements can hopefully reduce textile waste to a number easier to handle.

**Problem**

Capitalism being ingrained in the way we live coupled with the advancement of technology pushed the fashion industry to mass-produce garments that mostly will end up in our landfills just for the sake of profit. This rapid production, also called fast fashion, responds to the latest trends. Trends condition consumers to buy more clothes than they will ever be able to use sustainably. The speed at which trends change is further accelerated as social media and influencers become more intertwined within our daily lives. With the rise of production volume per time, the industry is the source of plenty of environmental concerns, such as carbon emissions, water and soil pollution, the excessive use of water and energy, wastewater, as well as solid waste generation.

Let’s focus on solid waste generation. According to the Copenhagen Fashion Summit (2015), the fashion industry produces 92 million tonnes of waste per year that ends up in landfills. This is around 0.92 - 1.32% of the reported 7 - 10 billion tonnes of total annual global solid waste generation (Global Waste Management Conference, 2021). In Indonesia, textile waste makes up 2.6% of the total 33 million tonnes of waste per year, putting it at 866 thousand tonnes per year (Sistem Informasi Pengelolaan Sampah Nasional, 2020). Meanwhile, data from the Statistics Indonesia (Badan Pusat Statistik/BPS) in 2014 stated that Indonesians consume 308.4 tonnes of clothing per year. This means that people throw away more than double of what they buy in a year alone, even though a piece of clothing can last for years.

With the supply chain disruption due to COVID-19, the number of textile waste could very well add up. Since the demand from consumers lowered in the early stages of COVID-19, clothing brands cancelled orders (including those already in production), delayed payments, or demanded discounts from their suppliers. These cancelled orders ended up never seeing the stores, and therefore became waste (European Civil Society Strategy, 2020). Meanwhile, thrift shops see an increase in clothes they get due to people having more time to sort out their belongings at home (Kleiderly, n.d.). However, the number of people that buy from them probably decreases due to staying at home and the fear of COVID-19.

**Solution**

So how do we decrease the number of textile waste generated? This requires effort from all relevant stakeholders. The waste hierarchy dictates that prevention and minimisation of waste are the most preferred solution. The government’s part mainly lies in establishing and enforcing laws and regulations. As per today, textile waste import in Indonesia is regulated in the Ministry of Trade Regulation Number 51/M-DAG/PER/7/2015 about the Prohibition to Import Used Clothing; however, this law is not yet implemented successfully since there are still smugglers. On March 6, 2020, customs uncovered 874,000 smuggled used clothes which are suspected to have come from multiple temperate countries (Rosana, 2020). Textile waste export is basically a form of Not In My Backyard Phenom-
Furthermore, the government should also cover the fashion industry regarding the Ministry of Environment and Forestry Regulation Number 75, which dictates that producers must map out their efforts in reducing waste. However, this law only covers manufacturers in the food and beverage, consumer goods, and cosmetics and personal care industry. Hopefully, by covering other industries, including the fashion industry, overall waste reduction could happen more efficiently.

Of course, fashion companies are the source of textile waste, and a lot of them follow the fast fashion model, even luxury brands. In recent years, some companies have been trying to be more sustainable by using environmentally friendly and recycled materials. These efforts are greatly appreciated, but there are still problems with these solutions. According to Gail Baugh, a lecturer at San Francisco State University and the Fashion Institute of Design and Merchandising, via the University of Delaware website, environmentally friendly materials, such as cotton, require more water to produce than recycled polyester fibre. Even then, only one-third of the harvest can be used for textile production. Conventionally grown cotton also uses synthetic fertilisers and pesticides, which contributes to pollution, whereas the chemical used in recycled polyester fibre production can be recycled back in a closed-loop system. Lastly, the quality of recycled cotton is lower than its original, and therefore could be a less appealing option, pushing producers to opt into growing cotton traditionally instead. According to a study by The Ellen McArthur Foundation (2017), less than 1 percent of products are recycled into new garments when it comes to textile recycling.

Industrial textile waste comes in the form of discarded fibres, unsold garments (Amed et al., 2021), and unused fabric rolls (Jones & Xu, 2021). These wastes are exported and incinerated, and the rest end up in landfills. The question is: how do we turn this wasteful industry around? We must recognise that fast fashion as a business model is inherently unsustainable. Ideally, fast fashion itself should be dismantled, and we should move towards slow fashion where every garment is accounted for. More careful and deliberate garment production is also more inclusive, with every garment fitting its wearer well. The current condition is that many clothes that do not fit the customers are returned to the store, where they are not necessarily resold. Ten percent of online returns are donated or incinerated, and restocked items must be hand-evaluated for potential damages and then steamed or dry cleaned before being restocked (Schiffer, 2019). Schiffer also stated that the US returns alone create 5 billion pounds of landfill waste and 15 million tonnes of carbon emissions annually.

Slow fashion, or at least slower fashion, can be achieved by more accurate calculations of the demands of the consumers. This will hopefully reduce the number of overproduction. Currently, unsold merchandise is burned. Another possible solution is by repurposing and reselling previous unsold collections (which has been done by Vetements, Oscar de la Renta, Gucci, and Helmut Lang), discounting, or opening a rental service. The problem with discounting is that, according to Timo Rissanen, an associate dean at Parsons School of Design and a professor of fashion design and sustainability, a lot of luxury brands see it as devaluing (Lieber, 2018). This is why recalculation to ensure all products are sold is important. There are also some challenges with opening a rental service, such as dry cleaning and washing, not to mention shipping costs and inventory management (Richards, 2020). Rental services, especially online ones, also contribute to greenhouse gas emissions. Therefore, although it might reduce solid textile waste, there should be more research on its other environmental impacts. Any form of extended producer responsibility is very important and should be considered even when the government has yet to require it.

Finally, the consumers have a big say in how the industry operates based on its supply and demand model. The average number of times a clothing is used before it ceases to be used has decreased by 36% compared to 15 years ago (Ellen MacArthur Foundation, 2017). On average,
people have more clothes than they actually need. A sustainable option is by thrifting clothes; however, there are also some problems with this. Lately, thrifting has been seen as hip and trendy, and this could still push people to overspend, thinking that they can just put their out-of-trend, sometimes bad quality garments to thrift shops. What people sometimes fail to consider is that when new clothes are given at a fast rate, these shops cannot sell all of them, and these extra clothes end up being thrown away. The problem all comes down to overconsumption. Consumers have to be able to stop being persuaded by marketing and trends. Even when a fashion company sells a 100% sustainable garment, it is more important for us to be mindful of our spendings. Buying a piece of fast fashion clothing once a year is still better than buying a sustainable piece once a month since it does not quite matter how the piece is made if it ends up in a landfill way earlier than it should be.

All relevant stakeholders should also invest in further recycling technology advancement. Currently, recycling is quite difficult. Many components of a piece of clothing have to be separated for the recycling process to be effective. Not to mention fabric blends being quite popular recently, which is hard to separate mechanically. Further research on textile recycling technology will hopefully raise its efficiency. An example of an effort in recycling technology is one by the Hong Kong Research Institute of Textiles & Apparel (HKRITA). HKRITA receives funding from various government, academic, trade associations and corporate supporters. They developed a mini-scale production line which could recycle post-consumer garments to a new one called the Garment-to-Garment Recycle System (G2G). Its display was funded in part by the H&M Foundation (Taylor, 2019).

**Impact**

At the end of the day, changing a well-established system is very difficult. Not to mention that the textile solid waste problem cannot be solved without collaboration by all relevant stakeholders. However, progress is always appreciated. Textile waste is just one part of the many problems the fashion industry causes. Even so, the process and result of the reduction efforts can impact other areas too. Reducing textile waste will reduce the number of waste to be burned, and therefore reduce air pollution. The number of waste that ends up in landfills also lessens, reducing pollution of the water and soil around it. Moreover, a sustainable factory will also produce less wastewater and air emissions. Less intense garment production can also alleviate the pressure on workers, solving the ethical issue that is underpaid and overworked labour.
Further Reading


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