

FAST FASHION IS THE NEW ENVIRONMENTAL PROBLEM

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Abstract. Fashion industry develops too fast nowadays. On the one hand, the emergence of new fashion trends makes our lives more colorful, but on the other hand, it is killing our planet. The article is devoted to the problems of environmental pollution under the influence of “fast fashion”, as well as the reasons for their occurrence. The study focuses on the use of environmentally friendly materials in production and waste management.

Relevance. The fashion industry is characterized by extreme dynamism, the instantaneous speed of change in all processes, and fierce competition between fashion brands. At the same time, this industry is the second most harmful industry for the environment after the oil industry. Trends in sustainable and slow fashion, in particular conscious consumption and attention to environmental friendliness of products, reuse of clothing thanks to second-hand networks and its recycling are relevant today throughout the world and in Ukraine including.

Fashion is a very popular hobby among young people. Every third person to the question: “What will you buy if we give you a thousand dollars?” answers: “Clothes!” For the younger generation, this is normal because hundreds of popular fashion bloggers promote fashion brands. Brands pay them a lot of money for advertising, but this fashion industry is slowly and surely deteriorating the condition of our planet.

Fast fashion. The term “fast fashion” refers to cheaply produced and priced garments that copy luxury brands and get pumped quickly through stores in large quantities. Clothing retailers like Zara, Forever 21, Bershka and H&M make cheap and fashionable clothing to satisfy the needs of young consumers. Fast fashion emerged in the late 1990s when retailers began speeding up production cycles and reducing production costs to respond more quickly to changing fashion trends and meet consumer needs. Clothing has become cheaper, its quantity has increased, while the quality of materials has decreased.

Consequences of “fast fashion”. The international expansion of fast fashion stores has a significant impact on the environment.

First, there’s water consumption. According to the UN Environment Programme (UNEP), the industry is the second-biggest consumer of water. Every year this part of global industry consumes 1.3 trillion gallons of water and pollutes it. Just producing one pair of jeans requires 7,000 liters of water.

Secondly, there is water pollution. The fabric dyeing process uses 1.7 million tons of different chemicals; not to mention dangerous chemicals such as perfluorinated compounds (PFCs) that have detrimental effects on the environment.

Thirdly, this is air pollution. The fashion industry accounts for about 10% of the world's carbon dioxide emissions - more than all international flights and shipping combined. At current rates, this figure will increase to 25% by 2050. When producing 1 kg of fabric, an average of 23 kg of greenhouse gases are generated. The environmental impact depends on the energy source used. For example, in China, textile production depends on coal-based energy. As a result, China has a 40% larger carbon footprint than textiles made somewhere in Turkey or Europe. Expanding production accelerates the growth of carbon dioxide emissions, which can lead to irreversible consequences for the entire planet [1].

Fourthly, there is land degradation. This is due to overgrazing of livestock on pastures, the massive use of chemicals in cotton production and deforestation caused by the extraction of wood fibers for the production of viscose.

According to forecasts by the analytical company McKinsey&Co, it follows that as consumer spending increases, the impact of the textile industry on the environment may increase significantly (Fig. 1).

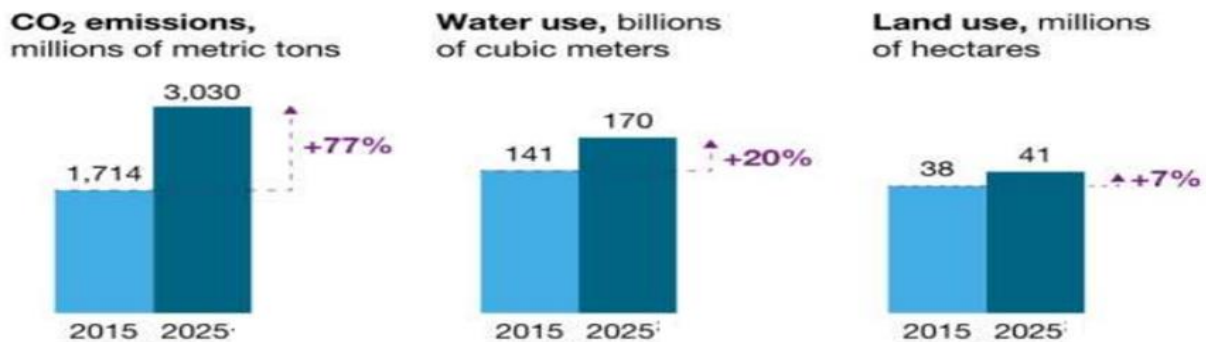


Fig. 1. Dynamics of the influence of the textile industry on the environment

Fifthly, this is overproduction. In 2016, Greenpeace claimed that more than 80 billion pieces of clothing are produced worldwide each year, a figure that is 400% more than 20 years ago. Analysts believe that at this rate, by 2030 consumption will increase by 60%, and existing things will be able to cover two planets. At the same time, clothes are thrown away after being worn on average only 7-10 times. Every year, approximately 92 million tons of textile waste ends up in landfills. In some countries, some landfills with discarded clothing are visible from satellites, like a mountain of 60 thousand tons of clothes in the Atacama Desert (Chile) (Fig. 2). Things are brought there from Asia, North America and even Europe.



Fig. 2. a) Clothes waste in the Atacama Desert (northern Chile); b) Giant clothes dump in Nairobi (Kenya)

Now, realizing the enormity of the problem of fast fashion, we propose to consider options for solving it.

Concepts of slow and sustainable fashion. The sustainable fashion trend started with consumers. In the early 2000s, awareness of the devastating effects of fast fashion on the environment came to light. People began to demand that brands change their approach to production. This is how the concept of slow fashion arose, which is based on saving resources, fair working conditions and transparency of the company. Slow fashion advocates advocate reasonable consumption and care for nature. They pay attention to the carbon footprint, the composition and quality of materials, and the ethics of the brand as a whole. It is important for them that their clothes last a long time, so they are careful in handling them: they repair them if necessary, donate unnecessary items for recycling or charity, and dress in second-hand stores or on resale platforms.

Second-hand shops. 70% of the world's inhabitants use second-hand stores (Fig. 3). Such shops help people to find the things they need not only cheaper but also without harming the environment. Many celebrities openly declare that they buy their clothes in second hand shops,

which sets the trend in reverse of fast fashion. Second-hand shopping partially solves the problem of waste by simply preventing its creation. Second-hand advocates believe that buying second-hand items will help improve the environment and reduce your carbon footprint. Most often, such beliefs are noted among Generation Z, for whom second-hand clothing is the answer to fast fashion. Buying used items reduces your carbon footprint by 82% [2].

Second hand shops became widely popular about 5 years ago in Ukraine. Over the years they have not lost their relevance. Of all imported finished light industry products in Ukraine, 54% are second-hand goods. According to the results of a survey conducted in 2023 among student youth, almost two-thirds of respondents believe that the use of second-hand goods in the category “Clothing, shoes and accessories” corresponds to the consumer behavior of Ukrainian student youth. Items from the range of this category of goods are in the wardrobe of 25.6 – 36.9% of respondents.



Fig. 3. a) Second-hand shop in Tampere, Finland; b) Second-hand in Kyiv

Recycled clothing. Recycling plants process unwanted clothing and produce new raw materials that can be used in the future (Fig. 4). Mostly such factories are located in European countries, which helps them maintain the environment at a higher level.



Fig. 4. Recycling plants

Clothes can be made not only from synthetic fibers or natural raw materials, but also from other materials that are completely unusual for the consumer - from plastic bags to banana boxes. The point is that clothes from such raw materials can also be processed in the future and new models can be created. As a rule, you can see the inscription “ECO” on the tag - this is what confirms the environmental friendliness of all the elements that were used during the manufacture of the clothing. In this way, the problem of the huge amount of discarded clothing can be solved, which can be further processed and put into production.

Eco-materials. Use of organic, eco-friendly or recycled fabrics, appropriate eco-friendly fittings and packaging (Fig. 5).

Linen. As mentioned above, large-scale production of any fabric requires complex processing that affects the environment. However, the degree of this impact differs from fabric to fabric and linen is the winner here. Its cultivation requires much less water than cotton and does not need a lot of chemical fertilizers or pesticides. The fabric making itself is also less harmful. Plus, linen clothing is biodegradable. For hundreds of years, linen clothing has been known around the world for its durability. It is breathable, hardwearing, lightweight, absorbent, antimicrobial, moth resistant and cool (as it lowers body temperature in summer, unlike cotton).

Hemp. Hemp is ideal for creating eco clothing. It is breathable, warm, absorbent, antibacterial, biodegradable and very durable fabric that becomes softer when worn and washed. Growing hemp requires little water and the plant itself can produce four to five times more fibers per hectare than cotton. In fact, hemp fertilises and saturates the soil in which it grows, rather than extracting nutrients from it like many other cultivated plants [3].

Bamboo. Bamboo fabric is a natural viscose produced from bamboo. Eco clothing made from this fabric has a silky texture, is incredibly durable, biodegradable and has moisture wicking properties. Growing bamboo requires very little water and no fertiliser or pesticides are needed. But there is a dark side. The very process of turning bamboo fibers into fabric is chemically intensive and produces a significant amount of waste. This makes bamboo viscose far less environmentally friendly than it may seem at first glance.



Fig. 5. a) Linen; b) Bamboo

There are also many other eco materials such as eco-leather and wool.

Conclusions and results. Summing up we realize how global the problem of ecology is and see the keys to its solution in front of us. And here we make the choice. Some of us are trying to preserve our planet and have as little impact on its ecology as possible, while abandoning consumerism and emphasizing recycling. Others live without thinking about tomorrow. They do not suspect in what condition they will leave our planet to their children. No matter how environmentally friendly materials are, if the consumerism of mankind will be unreasonable and spoilt, then unfortunately nothing will save us.

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