

Productive Handling of Post-Consumer Textile Wastes

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ABSTRACT

The frequent changes in fashion trends and the rise in standard of living are two factors that contribute to the textile industry's excessive growth. In turn, this has led to an over use of textile resources and an uncontrollable buildup of textile waste. The current methods for disposing of textile waste frequently cause large levels of contaminants to be released into our ecosystem. The reusability/recycling of such wastes stands out as a possible method to address this issue in light of the inadequate management of post-consumer textile waste. Reusability and recycling of post-consumer textile wastes can be used for a wide range of objectives, including meeting the industry's rising demand, preserving textile resources, fostering eco-textile practises, and more. Given the additional benefits of reuse and recycling textile waste, government organisations are encouraging textile workers to become aware of and embrace these practises. Most importantly, preparing Indian women for these practises would actually make it easier for them to be implemented effectively on a local level and would help to support and advance the idea of eco-textile. The methods for processing post-consumer waste goods productively are described in the current article, along with the importance of educating and raising awareness among Indian women so that these practises will be successful on a local level.

Keywords: Textile Waste, Post Handeling, Recycling, Awareness and Effective Management.

INTRODUCTION

We all regularly shop for, buy, and use woven or non-woven textile materials for things like clothing, home décor, and furniture, but have you ever considered what you'll do with them after you've used them for a while and they begin to tear or need to be thrown out? Usually, we just throw it away in our trash can or store it in our backyard storage area. Have you ever considered how this textile waste, if managed wisely by us, could produce an amazing reuse/recycle product with potential for lengthy durability and reusability? While it is true that fashion and manufacturing help the economy, they also contribute to the issue of how to dispose of clothing and textiles (Joseph,2001). There are mountains of worn-out, ill-fitting clothing that is no longer wearable but has not yet worn out. Textile waste can be either pre- or post-consumer waste, depending on the context; Pre-consumer trash is made up of leftover components from the cotton and textile fibre industries that are repurposed for use in the paper, clothing, furniture, mattresses, automobile, aerospace, and home building industries. Any form of clothing or home item made from manufactured textiles that the owner no longer needs and chooses to discard is referred to as post-consumer waste. These items are thrown because they are outdated, broken, outgrown, or no longer in style (Artjom Roznev).

IMPORTANCE AND USE OF POST TEXTIE WASTE

Almost half of the garments we use in daily life are discarded even before they can be considered unsuitable to be used because of various other reasons like fashion, size or fit issues. According to Gupta and Khare (2012), post-consumer garbage is gathered by walking door to door in nearby urban areas, and orders are placed to prepare items from the material collected. Donors, charities, commercial recyclers, and public policymakers should be concerned about the reuse and recycling markets and their economic, social, and political contexts, and the economic relationship between charities, local governments, and the commercial sector should not preclude taking the wider impact of the trade into account.

Now this is the right time to think in this direction, but before that it is important that we should have firsthand knowledge about the post-consumer textile handling so that we can minimize the waste and create wonderful things for our day today uses. The policy document "Indian Textiles & Clothing Industry: 2015," published by FICCI in January 2010, assessed India's per capita fibre consumption at 5-6 kg, compared to a global average of 10.8 kg. In keeping with worldwide trends, the industry organisation recommends increasing per capita consumption and improving the ratio of natural fibre to man-made fibre from 40:60 to 60:40. Consumption is bound to rise as economic growth accelerates (Anonymity,2010). There is a need to adopt policies that balance the growth imperatives aimed at increasing individual quality of life while also taking into account the lessons learned from thoughtless spending.

Any material of textile origin which is not considered suitable for its end user can be considered textile waste. The end user could be a garment manufacturer, upholstery designer, carpet manufacturer or the final consumer. It could be any industrial waste generated while manufacturing of fibers, yarns, fabrics or garments or the household waste created after usage of garments or textile material by end consumers(<https://textilevaluechain.in>). Any form of garment or household item made from manufactured textiles that the owner no longer needs and decides to discard is classified as post-consumer waste. These objects are sometimes donated to charities, but most of the time they are thrown away and wind up in landfills. As a result, there are concerns with increased consumption and the disposal of unwanted clothing, putting a strain on global resources.

The lack of awareness about the usefulness of textile recycling can be said to be the greatest barrier for this issue. In order to overcome these barriers: Consumer education is vital to ensure that fact-based information on the specific impacts of a product is available and understood (Allwood et al. ,2006). Reusing and recycling is a process that affects many entities. It avoids the punitive costs of landfill, provides employment, helps charity, and moves clothing to areas of the world where it is needed (Hawley 2006). Norris (2012) in a study found that in India clothing overconsumption exists in many parts of the state. It is mostly confined to the upper and middle classes, but it is equally blatant as in the West. Just the mechanisms are different. Much of the over consumption is due to 'giving' traditions in the Indian calendar of festivities, or in relation to social occasions (births, marriages, family gatherings etc.)

Need of textile waste recycling

The relevance of textile waste recycling and reuse has increased in recent years in our country as a result of rising living standards, which will increase demand for textiles and clothes. Textile recycling, according to Saravanan (2011), produces jobs for people who make socks, handbags, shoes, gloves, caps, and other things out of recycled textiles. Textile recycling also teaches people to reuse, reduce, and recycle items rather than discarding them. They impede drainage and rivers since they are mostly non-biodegradable. If disposed of in incinerators, they contribute to pollution and further harm to the environment. So now is the time to consider and decide whether or not to use recycled materials to reduce pollution. Every season, fashion marketers lure us to buy something new, sometimes with very innovative and fascinating goods. Overconsumption is exacerbated by fashion, which results in an excess of old clothing, closet space, and, most likely, credit cards. Furthermore, fashion has spread its tentacles beyond the clothes business to include the home furnishings market. As a result, fashionable products contribute to consumption at a far higher rate than is required. Without the concept of fashion, the textile, garment, and home furnishings sectors would be even more vulnerable in an already competitive industry. Today's apparel and home furnishings firms have a never-ending fashion cycle, which adds to the amount of garbage on the planet.

Customers discard of clothes more frequently, which implies that the resources used to make the clothes are disposed of more quickly, exacerbating the problem. It's worth noting that a lot of the clothes that are thrown away can be recycled, reused, or worn again. Textile waste posed a unique set of challenges for collectors. Decomposition of textile waste results in the formation of leachate, which can pollute groundwater. Also, the greenhouse gases released by fabric breakdown contribute to global warming. Furthermore, when organic fibres and yarn decay, hazardous gases such as ammonia and methane are created in huge quantities. Synthetic fibre takes slower to decompose, resulting in a prolonged period of contamination in the environment. The burning of textile waste emits a large amount of pollutants, such as dust particles. This posed a danger to both the environment and people. To protect the environment and promote a more sustainable consumption pattern, the textile industry must take responsibility for recycling and reusing textile waste, and consumers must be more active in reusing and recycling. It may be impossible to reverse the progress brought about by industrialization today. Together, industrial development has promoted mindless consumption and large-scale manufacturing, resulting in an increase in post-consumer waste (Gupta, 2012). Muhammad in the year 2012 investigated German textile recycling technology and discovered that the globe is now fully aware of global warming difficulties, which are damaging our environment and causing more CO₂ issues in our space. In order to use resources efficiently, we need to pay greater attention to renewable energy and recycling procedures today. Furthermore, material waste, re-use, and recycling are essential parts of utilising these resources, as well as environmental preservation and recycling items.

The practise of reusing and recycling has an impact on a variety of entities. It saves money by avoiding disposal costs, creating jobs, assisting charities, and transporting clothing to locations where it is needed (Hawley 2006). Textile and apparel waste can be divided into two categories: post-industrial and post-consumer waste, both with a large potential for recovery and quality recycling.

CONSUMER AWARENESS ON TEXTILE WASTE

Consumers react to changes in trend, both in clothes and in home interior designs, according to Katkar and Bairgadar (2010). Clothing can become outdated extremely fast due to seasonal changes in fashion, which encourages the replacement and disposal of outdated but good quality apparel. Awareness on environmental protection will grow as waste becomes scarce and costs rise. Consumers

should be able to make simple and educated decisions about how to dispose of their worn apparel. Annette (2004), justify the necessity for textile waste recycling. The study's goal was to determine the textile industry's current solid waste disposal and recycling practises in South Africa, as well as their attitudes and willingness to recycle, as well as their perceptions of the feasibility of recycling, barriers to recycling, and market strategies that would be appropriate for products made from recycled materials. Consumer awareness and knowledge of recycled textile items should be improved, and textile and garment manufacturers should be encouraged to recycle more extensively, according to the findings. There are studies that look into how customers dispose of fashion products and how to increase sustainable textile consumption. They looked into how fashion products are disposed of, as well as customer attitudes and actions about this process (Birtwistle and Moore ,2007). Consumers must continue to adjust their attitudes toward ecology and welcome recycled goods in the marketplace, as Europeans have done for decades, in order to create a green atmosphere for healthy living. To recognize the benefits of textile recycling from both an environmental and economic standpoint, and to recycle successfully, everyone must adopt the system rather than merely make a one-time charity donation. Meanwhile, arbiters must continue to build new value-added marketplaces and market after-use options in order for the system to operate at full capacity and with everyone's commitment. The Sustainable Area Initiative (SRI) is our pledge to think about the future in all we do, to prioritise community, environment, and economy, and to foster partnerships that will make our region great now and even better tomorrow. Burns and Bowling (2010) discussed the significance of clothing disposition, as well as the relationship between service quality, customer satisfaction, and consumer behaviour.

CONCLUSION

Due to excessively high demand for textile products, the textile sector is expanding very quickly. As a result, the post-consumer textile wastes are piling up to an unsettling degree. The disposal of these products frequently results in the production of environmentally dangerous contaminants, such as leachate, which may be produced as textile waste decomposes and could pollute water. The quest for various alternative methods to handle textile wastes is necessary due to the current post-consumer textile waste treatment processes' eco-unfriendly characteristics. Recyclability and reuse of post-consumer waste items have been popular in recent decades as a solution to this problem. The reuse of textile waste has the very clear benefit of allowing the supply chain to catch up with the rising demand for textile waste, significantly reducing the overconsumption of textile resources. In addition to potentially managing textile waste, recycling post-consumer waste goods protects the environment from pollution caused by other decomposition processes used to manage textile waste. The government is making all the necessary preparations to promote the acceptance of textile waste recycling or reusability. However, the inclusion of Indian women as a critical mass in these practises is essential to their actual effectiveness. The government has already implemented a number of programmes and initiatives to familiarise the textile sector with the adoption of reusability/recycling of post-consumer textile waste. The global textile industry would likely move closer to the concept of eco-textile as a result of these practises, which should facilitate the delicate balancing act between the expansion of the textile sector and the accompanying sustainable eco-friendly practises. It is crucial that the textile industry around the world make an effort to recycle the trash they generate. An efficient post-consumer recycling system can have a significant positive impact on the environment. Clothing that is biodegradable, sustainable, and recycled should go hand in hand with fashion.

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