

# Sustainable Fashion Goods And Their Ideas Of Making In Design Studies For The Betterment Of Society

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## Abstract:

The concept of Fast Fashion and its utilization is becoming a high trend everywhere and also hampering the meaning of sustainability. The selection and buying of fashion goods such as jackets, cardigans, sweaters, etc. have become disposable due to usage of the synthetic materials in their making due to being inexpensive and available. The educational Sector of Fashion studies can play a pivotal role in changing the mind- set of the designers and manufacturers for bringing their production and development on concept of sustained futures. No doubt the need for clothing is increasing day by day worldwide which resulting the issue of handling and disposing of pre and post-consumer fashion goods' hard waste here in Pakistan also. And Pakistan have to be in the Textile and Fashion sector due to largest share in the country's economy. Not only producing but also exporting millions of garments every year from different sectors, especially from the print and knit sector too. The leftover knit garments and Printed fabrics have become a big issue for the country as waste. Their disposal management needed to be innovative and rethink for proper impact on the environment. In this paper, the author will collect hard waste of Knit and Print fabrics and convert that waste into meaningful fashion products such as cardigans, jackets, and upper wear by adopting gore and tubular knit techniques with recycle and reuse methods as fashion tricks for Pakistan Textile and Fashion Industry. The selection of the waste fabrics will be done by adopting assortment planning for sustainable fabrics along with green materials and recycled yarns according to demand. The fabric samples will be modelled via 3D Visualisation through Adobe Photoshop. The Process and ways can be adopted in fashion studies education or curriculum that helps in the making and manufacturing of Green goods. Furthermore it will provide the base study for upcoming designers and existing manufactures for changing their mind-set into sustained futures that leads towards betterment of the society.

**Key Words:** Design studies, Fashion, Knitting, Polyester, sustained Future

## Back ground and Context

The world-wide synthetic fibres market was assessed at \$61.4 billion in 2020 and is estimated to grow to \$88.5 billion in 2025. Although the fashion industry has yet to see an industry-wide roar in moneys for sustainable

substitutes, they are under snowballing stakeholder and customer stress to do so. It is expected that about 63% of all textiles are derivative from petrochemicals, all emancipating a substantial amount of CO<sub>2</sub> discharges. "Emission-to-textile" technology has the forthcoming to move the market for synthetic

fibres and its usages. No doubt Cloths known as big problem and considered the elephant in the room. They're all around us but no one is discerning about them. We just overlook fabrics, maybe because they are almost always used as a component in a final product that seems rather inoffensive such as sheets, blankets, sofas, curtains, and of course clothing.

Therefore one of the biggest necessities in mankind is known as clothing and its demand is increasing every year on basis of the population which means more clothing is required to meet the demand by considering importance of sustainability. According to this we must think how we can fulfil more demand especially when it comes for fast fashion by utilising less resources. Because the total demand of fashion goods in the world is about the US \$300 Billion (World Bank Report 2021) which is also increasing on a year basis. Similarly in Pakistan, the number of users are also projected to extend 26.3m consumers by 2025 in the field of the Fashion Industry, and along with that the consumer penetration will be 8.4% in 2022 and is expected to hit 10.8% by 2025(Statista 2021). This upward trend is due to demand of fast fashion of today's user and those disposing the clothes in large amount. According to World Economic Forum Data 2022, the cities of Pakistan are coming in the list of the top 10 most polluted Cities. Whereas the domain of textile and fashion accounted World's second largest pollutants as both pre and post-consumer textile waste. However, the developing countries such as Pakistan, India and Bangladesh are also the main contributors due to the cheap manufacturing capacity with fewer resources of tackling the waste. Hard waste is major problem coming out from used Fast fashion goods.

And for this, the fashion and textile industry is responsible directly or indirectly in generating waste and polluting the air and land. To meet demand of more fast fashion goods can be made

by providing a smart solution through re-utilization of non-friendly materials named synthetics as left over from textile and fashion waste into in the products in addition with green materials. The smart solution will help to manage or to reduce fashion and textile waste in Pakistan by fulfilment of important Goal of Sustainable Development Goals of United Nation set up in 2015 that's (12) Responsible Consumption and Production. The textile and fashion sector of Pakistan is significant due to its largest share in the country's economy. Therefore education or fashion studies can play positive impact in changing mind-set of manufacturers and designers for sustainable product development. There is a need to add some of the innovative ideas in the existing curriculum or as a modules of workshops in the Design Studies education.

### **1. Research problem statement or research question**

Fashion goods especially fast fashion using synthetic materials in large quantity which resulted to produce solid hard wastes such as fibre, Fabrics and, plastic along conventional fashion goods and of course, this turning oil into fashion will go on an upward trend if we didn't stop here by providing new innovative solutions in this category. The hard waste coming out from fashion goods are becoming difficult to manage now a days in Pakistan which resulted adverse impact on environment and climate. The issue is to manage or reduce hard waste of textile and fashion goods to make their utilisation and consumption more sustainable in Pakistan for the requirement of fashion. Therefore needs to shift the mind-set of the upcoming designers towards sustainable products through their modules in their education.

According to this, the article will try to solve two concerns.

- 1) How and with what ways Fabric Hard waste can be managed in Pakistan?

- 2) What possible ways of making goods from Waste material that makes base study for Sustainable design studies education?

### 3) **Research methodology**

In order to reduce or manage the Hard waste of textile and fashion goods from Pakistan the author is suggesting in making and designing by keeping in view the concept of sustainability through Green Certified Materials along with used materials (waste) as one method of circular economy. And it is in the discussion of today as a solution to today's fast fashion and Conventional Fashion needs.

The development of different fashion products especially as knits will take place via recycling and upcycling in this article. The method of using recycling is one of the way to obtain the sustainable textile goods. Along recycle there are also three more R's such as reusability, re-originate, and Reduce. The concept of reusability is also related to word upcycling and the two R's are using in this research one is recycle and second is Re-Usability. And it points out that the re-utilization of materials after proper assortment planning that gives room for product innovation. The assortment planning of used textile and fashion waste will be considered as a sample of raw material along with the certified green materials from such EU Flower or OEKA Tex systems. The green material will be Hemp, Cotton and Recycled Cotton blend with hemp will be used along hard waste of knit fabrics and printed fabrics in product development. The Design of Experiment based on different knitting techniques such as gore, tubular.

Therefore the Flat Knitting machine will be used for fabric development from the sample of waste material. The researcher will develop the fabric samples and fashion goods as an experimental type of research based on a theme. The outcomes of research will be of fast fashion upper body Knits or can be used in other application based on outcomes of experimentation by incorporating

three pillars of Sustainability for sustained future along with their 3D Visualisation. The re-utilisation of textile and fashion waste leads towards waste management, reduces the quantity of waste to put into landfills or to burn. The innovative way of development leads toward base study for upcoming developers and designers. The reason of choosing Knit technology/technique is to save cost through its output ratio and hence by utilising recycled waste Yarn loses its strength this issue can easily be addressed by using weft knitting technique where soft yarn can be used easily.

### **Sampling and Experimentation ( Idea to be Adopted for Design studies)**

#### **Materials:**

Hemp Yarn: 100%

Hemp and cotton + Cotton Recycled Yarn 45%,  
40 % + 15%

#### **Reason of using Hemp**

Hemp is **naturally resilient to mildew and insects**. As such, it does not need any insecticides throughout its farming like cotton, which is a very subtle plant that wants tons of pesticides and insect repellent treatments for it to effectually cultivate. This marks the farming of hemp a cost-effective project for any agriculturalist. Furthermore it also require very less water to grow when it compare with cotton. Hemp is a comparatively robust plant, and wants far less water than many other industrial crops, like cotton. Similarly, it cultivates much quicker than the trees which are used to make paper. Thru substituting merchandises with hemp substitutions, several experts have faith in that they will be able to transfer near a more sustainable manner of manufacturing and consumption. Also its capability to jerk or pull huge masses of carbon dioxide out of the air.

**Fabric Waste:** Knit Hard Waste Fabrics (Jersey, Ribs, and Poly-knit) and Printed Fabrics.

Normally the manufacturing of our clothes are made of synthetic resources like polyester or chemically-intensive cotton or their blends. Fabric dyeing also uses 5 trillion litres of water a year and 8,000 chemicals in the process in Pakistan. By taking such waste which is known as hard waste comes out from pre consumer and post-consumer products needed to be handled in a proper and convenient way.

**Technique:** Gore, Tubular knit

The technique named as Gore is very simple yet beneficial to insert or fir huge amount and size of waste in the product during knitting which requires less time as compared to be involved in crushing etc.

**Machine:** V bed Hand flat bed

**Machine Gauge:** 5, 7, 10

**Fabric selection method:** Assortment Planning

**Visualisation:** 3D mapping via Adobe Photo shop

**Process Refer to RQ 1**

**In the first step as shown in fig a and b author collected knitted waste**



**Fig: a and b**



**Fig: c and d**

**Cutting and sorting**



**Fig: e and f**



**Fig: g and h**



**Fig: I and j**

**Assortment Planning (Must be done so that product can be developed according to demand) e.g. Sweater, cardigan**



**Fig: k and l**



**Fig: m and n**

**Sampling**

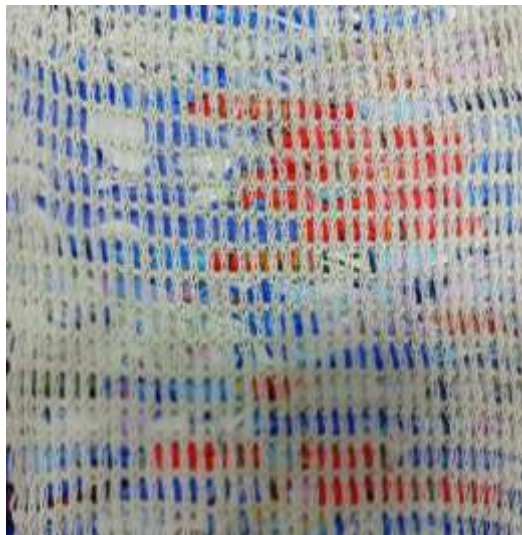
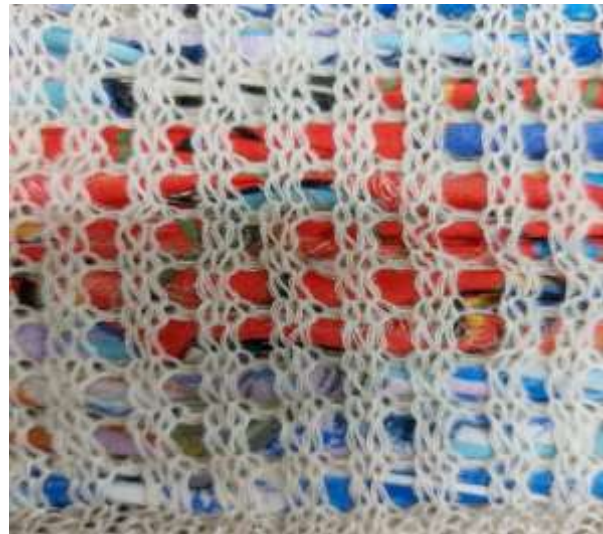




**Fig: o, p and q**

**Outcome Refer to RQ 2**

**Sample 1 and 2: Tubular Knit with Hemp/Cotton Blend with Print hard Waste**



Source: Developed by Author

3D Visualisation via Dummy Image



**Insertion with the gap of two courses.**



Source: Developed by Author

3D Visualisation via Dummy Image





**Sample 3 and 4: Gore Technique with 100 % Hemp and Knit/Poly-Knit Fabrics**



Source: Developed by Author

3D Visualisation via Dummy Image



### Conclusion

In Pakistan there are very few brands having their footprints in the development of sustainable products and can be counted easily such as Sapphire, Gul-Ahmad and Artistic Milliners Pvt Ltd. They are trying to push or change the mind set of local customers towards buying of green/sustainable products through mostly offering accessories such as bags. But there is a huge gap in Local industry and market of Pakistan with respect to Product wise where the sustainable products can be made and localised amongst the consumers through proper counselling's, marketing campaign and importance of goods so that a buying trend evolve in the country. The Education sector also needs to empathise on the significance of Sustainability that makes betterment in the social society.

Proper Research needed to be done which gives its impact in any sector which can uplift the issues and revolve the economy. Research through proper analysis of sector and their product Development that able to find out the problems and relevant solutions that can be doable and achieve able in the society and Education sector of Fashion Studies.

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