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# FASHION AND ENVIRONMENT

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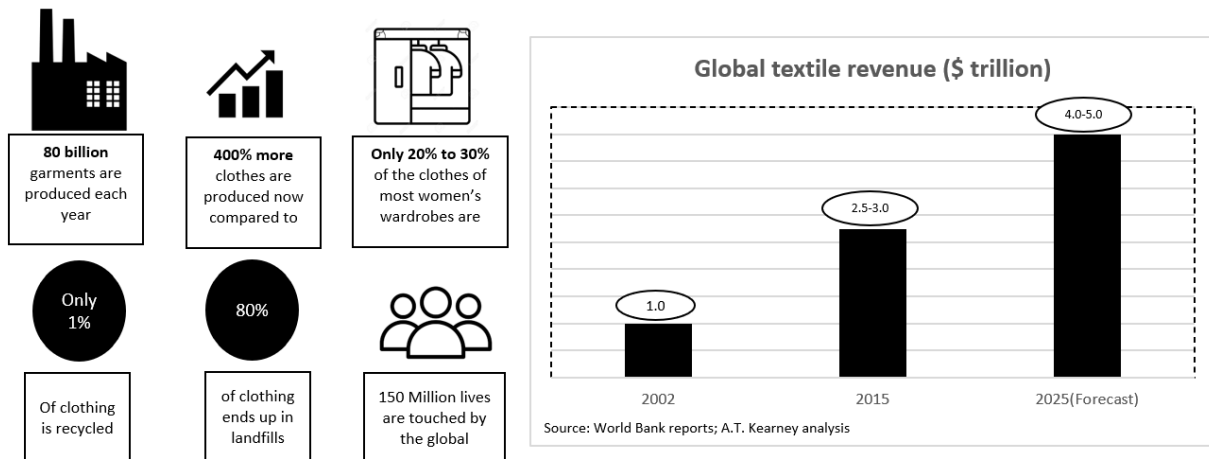
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# 1. Introduction

We've been able to buy more and more clothes because to the decline in garment prices over the last 20 years. We now have five times the amount of clothing that our grandparents did. It felt great until we discovered what was causing this trend.

This never-ending supply of low-priced clothing is only achievable due to ongoing production cost reductions. This has major ramifications for our health, the environment, and the livelihoods of garment workers.



# 2. What Is Fast Fashion?

Did you realise that humans currently consume 400% more clothing than they did 20 years ago? & did you know that the average American produces 82 pounds of textile trash every year? We're buying more clothes than ever before, but we're wearing a lot less of them. Fast fashion's tremendous expansion over the last two decades is one of the key reasons behind this.

Fast fashion refers to clothing designs that travel fast from the runway to stores in order to capitalise on current trends. The collections are frequently inspired by styles seen on the runways during Fashion Week or worn by celebrities. Fast fashion helps ordinary people to get their hands on the hottest new look or the next great thing for a reasonable price.

Fast fashion became popular as a result of cheaper, faster manufacturing and shipping technologies, increased consumer demand for up-to-date styles, and increased consumer purchasing power—particularly among young people—to satisfy these instant-gratification wants. Fast fashion is threatening the major clothing labels' practise of producing new collections and lines on a regular, seasonal basis as a result of all of this. Fast-fashion retailers are known for introducing new products numerous times in a week in order to stay on trend.

# 3. The History of Fast Fashion

The fashion industry operated on a four-season system until the mid-twentieth century: fall, winter, spring, and summer. Designers would plan for each season months in advance, predicting the trends they thought shoppers would prefer. This procedure, while more meticulous than today's fashion, took away the wearer's agency. Fashion was prescribed to high society before it became accessible to the masses, and there were standards to follow.

A well-timed marketing effort for paper garments didn't prove customers were ready for the fast fashion trend until the 1960s. As a result, the fashion sector has accelerated its speed while cutting costs.

Fast fashion, on the other hand, did not reach a point of no return until a few decades later. "It came to the fore during the fad for 'boho chic' in the mid-2000s," according to the Sunday Style Times.

Fast fashion brands now release 52 "micro-seasons" per year, or one new "collection" per week. This began in the early 2000s, when Zara switched to bi-weekly deliveries of new products, according to author Elizabeth Cline. Since then, it's become normal for stores to keep a massive supply of stock on hand at all times, ensuring that companies don't run out of clothes. These companies can generate new, attractive outfits monthly, if not daily, by mimicking streetwear and fashion

week trends as they emerge in real time. The brands may then stock vast numbers of apparel, ensuring that shoppers never run out of options.

Even premium brands measure growth by increasing production. While brands like H&M, Topshop, and Zara have been the target of overproduction complaints, even luxury brands measure growth by increasing production. "Apparel firms make 53 million tonnes of garments into the world annually," according to Fast Company, and the number has undoubtedly climbed since the article's original publication in 2019. "By 2050, the industry is predicted to reach 160 million tonnes if it continues to grow at its current rate."

#### **4. Disadvantages of Fast Fashion**

The fashion business is the world's second largest water consumer and polluter, according to the United Nations Environment Programme. It produces 20% of the world's wastewater and 10% of the world's carbon emissions. Furthermore, its high-speed production and release of up to 24 collections per year leads to overproduction.

H&M reported having \$4.3 billion in unsold clothing in its inventory in 2018.

According to a 2017 study, the company has been burning its garbage since 2013.

Burberry revealed in its annual report in 2018 that it physically destroys (read: burns) unsold merchandise in order to maintain brand exclusivity.

The most cost-effective methods of destroying product are to burn or shred it. Frequently rationalised under the guise of being able to recycle the energy.

Despite these efforts, 85 percent of textiles are still discarded in landfills each year.

Microplastics, which contribute to roughly 30% of ocean plastic waste, are also present in some of the clothing fabrics they employ.

Polyester, which uses 342 million barrels of oil per year, accounts for the majority of this.

According to the CFDA, we are utilising and extracting this natural resource at a quicker rate than it is produced; maximum extraction could be reached by 2030.

#### **5. Why is it Impossible for Fast Fashion to be Good Quality?**

Most consumers claim that "regular" clothing labels are too pricey for them to afford anything other than fast fashion. Fast fashion, on the other hand, is the one that is too cheap.

Major fast fashion stores are fighting for customers by lowering their prices farther and further. To do so, they must discover ways to reduce costs while compromising on quality, materials, and worker welfare.

##### **Polyester**

Polyester is the worst clothing material that ever existed and it's one of the main materials used by fast fashion companies due to its cheap cost. It is a synthetic material made of petrol which is, obviously, bad for the environment, and releases microplastic to our water systems when washed. Polyester is not breathable which means that you get all sweaty under it. Because of this, it's especially unsuitable for summer clothes and underwear. Polyester clothes tend to fade very quickly, and just look generally worn out after only a couple of wears and washes.

#### **6. Garment Quality Standards**

Quality control is conducted in the garment industry from the early step of acquiring raw materials to the stage of the final produced garment. Product quality is measured in terms of the quality and standard of fibres, yarns, fabric construction, colour fastness, surface designs, and final finished garment items in the textile and apparel sector. Quality requirements for export, on the other hand, are linked to the types of consumer categories and retail locations.

Stages of Production Apparel Production is generally done in four stages:

Fabric flaws can be characterised according to the source of the flaws as follows:

- (a) Yarn faults
- (b) Weaving faults
- (c) Dyeing faults
- (d) Finishing faults, etc.

##### **Fabric Inspection and Testing**

Fabric inspection systems that are internationally acknowledged outline how the fabric should be inspected and what qualifies a "OK" fabric. The problem or defect is allocated points in all systems based on its size, type, spread, and other factors. The cloth is then 'approved' or 'rejected' based on the total points in a particular linear length. Some businesses have created their own system by customising current systems to their own needs and fabric types. The acceptance criteria are also influenced by the final product's style, market, functionality, and performance base.

Aside from that, testing is carried out to determine the fabric's appropriateness for its intended usage. The tests could be routine testing performed by any fabric manufacturer, or they could be specifically requested by the end product buyer. Colour fastness (against light, moisture, perspiration, chlorine, and so on), thread count, fabric weight, shrinkage, flame-retardant, and so on are among the tests performed. The possibility of repair/rectification is examined once the fault and its magnitude have been determined. If the fabric can be corrected, it is forwarded to the method of choice. If this is not the case, the cloth will be rejected.

## 7. Quality Assurance in the Garment Industry

The 'fitness for use' of a thing is defined as its quality. Whether a product is of high quality or not is determined by the needs of the consumer. As a result, the commonly used term 'Bad Quality' does not exist because the term 'Quality' defines the product's fitness by itself.

The quality of the product is ensured by:

1. Adopting proper work procedures entails describing the entire manufacturing process, from raw materials to final goods, as well as expanding on operational protocols for each department.
2. Appropriate machinery selection and application.
3. Manpower training is provided at all levels, including operators, supervisors, and management, and includes topics such as machinery, maintenance, quality processes, production, and the product.
4. Product inspection at various phases of production – Crucial stages are chosen for this. The frequency and number of inspections are not set in stone. Companies are prone to creating their own set of norms in this regard. The most crucial consideration is that the final product meet the standards and requirements established for the product in question.

### Indian Standard

IS 12675 : 1989

IS 12675 : 1989

## GUIDE TO GARMENT QUALITY

### 1 SCOPE

1.1 This standard provides a list of factors which guide at the various stages of garment manufacturing from design to packaging, to ensure final garment quality.

### 2 REFERENCE

IS No.	Title
IS 12110 : 1987	Glossary of terms used in apparel industry

### 3 TERMINOLOGY

3.1 For the purpose of this standard, the definitions given in IS 12110 : 1987 shall apply.

### 4 STAGES OF PRODUCTION

4.0 A garment has to pass through a number of stages in its manufacturing process. These are:

- a) Pre-production, namely, designing, selection of materials, pattern making, sample making, etc;
- b) Lay planning;
- c) Laying-up and under-pressing;
- d) Make-up and under-pressing;
- e) Final pressing;
- f) Final checking;
- g) Labelling; and
- h) Packaging.

These stages are intended to be as comprehensive as possible. However, individual processes or systems are likely to vary from factory to factory.

#### 4.1 Pre-production

##### 4.1.1 General

The design of garments and the materials to be used in the manufacture of garments should ensure the fitness for purpose and relate to the method of production. Materials and trimmings selected for production of garments should be compatible with each other.

##### 4.1.2 Materials Inspection

The materials should be inspected for defects and variations, checked for conformity to the related specification and properly labelled.

4.1.2.1 List of Indian Standards on dress fabrics giving the manufacturing details and other requirements are listed in Annex A.

4.1.2.2 List of Indian Standards relevant to material selection and other aspects of garments are given in Annex B.

#### 4.1.3 Grading, Pattern Cutting and Sample Making

Grading should be done in a logical sequence ensuring that the original design concept is maintained. Patterns should be cut to ensure that garments are produced in conformity with the established size schedules. Reference samples should be produced under conditions that are as close as possible to the factory production methods.

#### 4.2 Lay Planning

While lay planning, following factors should be taken care of:

- a) Correct positioning of pattern pieces on fabric grain;
- b) Inclusion of all required pattern pieces;
- c) Matching of checks and stripes;
- d) Correct positioning of pattern pieces for pile fabrics or one side fabrics;
- e) No overlapping of pattern pieces;
- f) Availability of sufficient space between parts for accurate cutting;
- g) Correct identification of all pieces by size, style, etc;
- h) Accurate marking;
- i) Inclusion and correct positioning of all notches and drill marks; and
- k) Fully marking of parts within defined lay width.

#### 4.3 Laying-up, Cutting and Fusing

##### 4.3.1 Laying-up

The fabrics should be laid tension-free, straight and pattern matched. The procedures should be specified for dealing with the following, if necessary:

- a) One side materials,
- b) Material batch preparation,
- c) Fault marking and cutting out, and
- d) Correct positioning of notches and drill holes.

##### 4.3.2 Cutting

Knife profile and cutting speeds should be checked. Cleanliness and safety aspects should be ensured during cutting.

##### 4.3.3 Fusing

Regular checks should be carried out for the duration, temperature and pressure ratings of the fusing press at least twice every day. The press settings can be monitored by bond strength measurements on test samples by fusing at the same time as garment parts. Fused parts should

be checked when cool and before any subsequent operations, for colour and appearance changes as well as shrinkage.

#### 4.4 Make-up and Under-Pressing

The equipment, operations and materials which require adequate attention for proper make-up and pressing of garments are as given below:

- a) Sewing machines, cleanliness and settings;
- b) Needles size, and thread tension;
- c) Stitch density and thread tension;
- d) Sewing thread material, count, colour and shade;
- e) Seam allowance; and
- f) Under-pressing conditions.

4.4.1 The Indian Standards listed in Annex C shall provide guidance on sewing and embroidery threads, seams and stitches.

#### 4.5 Final Pressing

Regular checks should be carried out at least twice every day for functioning of press and cleanliness of press covers. In case of final dry heat pressing, checks mentioned in 4.3.3 should be carried out twice every day. The garments should be checked for the following defects before as well as after all stages of pressing:

- a) Unwanted creases/impressions/stainmarks, and
- b) Pressing glaze.

4.5.1 The garments after pressing should be dry before subsequent operations; for example, buttoning, bagging, etc.

#### 4.6 Final Checking

The following aspects of garments should be checked at this stage:

- a) Correct dimensions;
- b) Seam pucker, seam allowance and sewing faults;
- c) Garment symmetry;
- d) Pressing/fusing defects;

- e) Cleanliness;
- f) Loose threads;
- g) Correct matching of fabrics and trimmings;
- h) Shade variation;
- i) Correct fitting and alignment of closures; and
- k) Correct placing of labels.

4.6.1 A reference sample and complete specification of garment should be available at the inspection point which should have proper lighting conditions. As far as possible, all garments should be checked. However, if 100 percent inspection level is not possible, Indian Standards listed in Annex D may be followed for choosing the appropriate sampling plan.

#### 4.7 Labelling

The garments should be properly labelled. The size and details of labels should be as agreed to between the buyer and the seller and as far as possible, should indicate the following:

- a) Fibre content;
- b) After-care instructions;
- c) Size designation;
- d) Manufacturer's name, initials or trademark; and
- e) Country of origin.

NOTE — In case of garments made from combination of fabrics, the fibre content shall be determined on the basis of predominant fabric(s). Waddings used in the garments shall not be considered for declaring the fibre content.

4.7.1 The list of Indian Standards given in Annex F shall be helpful in proper designing of labels.

#### 4.8 Packaging

Garment packages should be so designed as to ensure that the garments reach the consumer in satisfactory condition. The details such as, method of garment folding, number of garments in each package, type of outer packing, etc, should be worked out in consultation with the buyer. Standards listed in Annex F shall guide in proper packaging of garments.

## ANNEX A

( Clause 4.1.2.1 )

### LIST OF INDIAN STANDARDS ON DRESS FABRICS

#### A-1 COTTON, SYNTHETIC AND BLENDED FABRICS—MILL-MADE

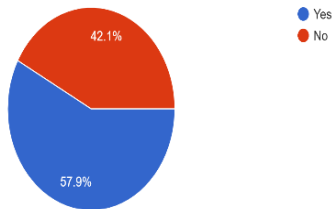
IS No.	Title	IS No.	Title
IS 177 : 1977	Cotton drills ( <i>third revision</i> )	IS 187 : 1978	Cotton long cloth ( <i>second revision</i> )
IS 178 : 1984	Cotton twill ( <i>second revision</i> )	IS 188 : 1980	Cotton poplin ( <i>second revision</i> )
IS 182 : 1983	Mazri ( <i>second revision</i> )	IS 1144 : 1980	Cotton Cellular shirting ( <i>second revision</i> )
IS 186 : 1983	Cotton mulls ( <i>second revision</i> )		

## 8. Primary Research Data

### Question Number 1: Have you heard of the term “Fast Fashion”?

From the responses this can be concluded that most of the people are not aware about the concept of fast fashion.

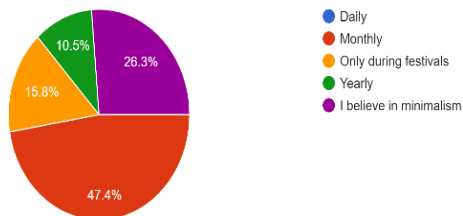
Have you heard of the term 'Sustainable Fashion'?



### Question Number 2: Have you heard of the term “Fast Fashion”?

From the responses this can be concluded most of the people buy clothes monthly, which is more than what they require.

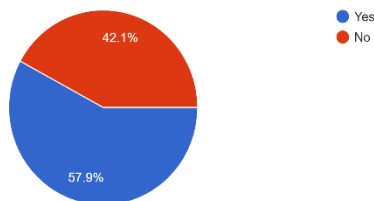
How often do you buy clothes?



### Question Number 3: Have you heard of the term 'Sustainable Fashion'?

From the responses this can be concluded that a large portion of people don't have knowledge about “Sustainable Fashion”).

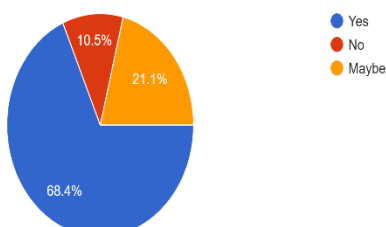
Have you heard of the term 'Sustainable Fashion'?



### Question Number 4: Are you concerned about the social, environmental and ethical impacts the fashion industry has on the world?

From the responses this can be concluded that a large portion of people are actually concerned about the social, environmental and ethical impacts the fashion industry has on the world.

Are you concerned about the social, environmental and ethical impacts the fashion industry has on the world?



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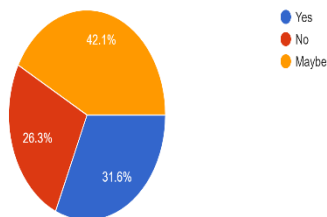
**Question Number 5: If your favourite store sold a new line of sustainable, eco-friendly apparel but at a higher cost, would you buy it?**

**And**

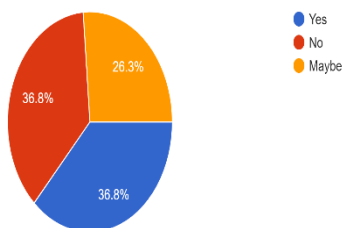
**Question Number 6: Considering style, comfort and quality are the same, would you purchase sustainable clothing if it costs more than what you would normally pay?**

From the responses this can be concluded that people are willing to buy sustainable products at higher cost.

If your favorite store sold a new line of sustainable, eco-friendly apparel but at a higher cost, would you buy it?



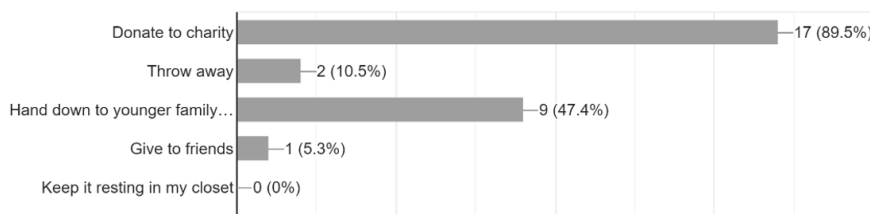
Considering style, comfort and quality are the same, would you purchase sustainable clothing if it costs more than what you would normally pay?



**Question Number 7: Considering style, comfort and quality are the same, would you purchase sustainable clothing if it costs more than what you would normally pay?**

From the responses this can be concluded that most of the people donate their clothes or Hand down to younger family member.

How do you dispose of unwanted clothes? (Choose all that apply)



## 9. Conclusion

A lot of people are willing to shift their life towards sustainability, but most of them lack awareness about “fast fashion” or “Sustainable clothing”. People are not aware about the fact that how mere buying their favourite cloth is impacting the Earth in a huge extent. So, steps can be taken for awareness about sustainability.

# Appendix



## Appendix 1

<b>Some Fast Fashion Brands</b>					
Ally Fashion	COS	Hot Topic	Nasty Gal	Riachuelo	Victoria'sSecret
Anthropologie	Cotton On	Inditex	New Look	Rip Curl	W.Lane
ASOS	Darn Tough	J.Crew	NewYorker	River Island	Wish
Autograph	Decjuba	Jasmine & Will	Next	Rockmans	Zaful
Ben Sherman	Diana Ferrari	Little Trelise	Nike	Romwe	Zara
Benetton	Esprit	Lowes	Noni B	Shasa	& Other Stories
Bershka	Fashion Nova	Madewell	Oasis	Shein	Abercrombie & Fitch
Bestseller	FIVE FOXes	Mango	Old Navy	Showpo	Adidas
Betts	Forever 21	Massimo Dutti	Oysho	Stradivarius	Allen Solly
Bloch	Free People	Merric	PE Nation	TopShop	FabIndia
Boohoo	Fruit of the Loom	Metersbonwe	Peacocks	Trelise Cooper	Mantra
C&A	Gap	Mirro	Pretty Little Thing	Uniqlo	Monte Carlo
Camilla and Marc	Giordano	Miss Selfridge	Primark	United Colors of Benetton	Peter England
Charlotte Russe	Guess	Missguided	Pull & Bear	UrbanOutfitters	S.Oliver
Cheap Monday	H&M	Mollini	Rainbow Shops	Uterque	URBAN SUBURBAN
Cooper St	Heine	Monki	Renner	Valleygirl	Max

## Appendix 2

<b>Some Sustainable Brands</b>		
11.11 / eleven eleven	JODI	No Nasties
Anokhi	Ka Sha	Okhai
Aranyani	Ka-Sha	Oshadi
behno	KhadiCult	Pero
B-Label	Khara Kapas	Raff
Bodice	Liva	Rastah
Chakori Ethnic	LOTA	Rias Jaipur
Chola The Label	Lovebirds	Runaway Bicycle
Doodlage	Mio Borsa	The Jodi Life
Doodlage	Mix Mitti	The Summer House
Fab India	Nicobar	Upsana