



THE ECOCHIC DESIGN AWARD FASHION AND THE ENVIRONMENT



THE ISSUES AT A GLANCE



The fashion industry is much loved for its creativity, its style and its ability as a cultural and societal barometer to reflect our altering world affairs through clothing's changing silhouettes and trends. For this, we salute you. However, the fashion industry is one of the world's most polluting industries that causes serious damaging environmental pollution, which severely harms parts of the planet and her people. For this we fear you.

But over recent years, the fashion industry's caustic impact on the environment has worsened to dramatic levels. This is because with the emergence of fast fashion - the process of making clothes faster, cheaper and generally of poorer quality - the fashion production cycle has accelerated to such voracity that consumers have more opportunities to shop 'til they - and the environment - drops.

At first glance, fast fashion may seem like a victory for fashion because, at such low prices, everyone can enjoy changing trends without breaking the bank. However, these fast fashion production and consumption cycles have resulted in a trail of destruction, including increased textile waste generated along the entire fashion supply chain, from production, consumption to disposal. In addition, the fashion and textile industries use extensive amounts of water, energy, chemicals and raw materials throughout the supply chain, all of which places heavy demands on Earth's natural resources. To make matters worse, alarming amounts of chemical pollutants, carbon dioxide and other toxic substances are released into waterways, soil and air during clothing's production.

However, the fashion industry's negative environmental impacts don't stop the moment the clothes are tastefully hung in the retail store, purchased and then packed off home by the consumer. Instead, the negative thread of impacts continues during the consumer-use phase as the consumer washes, dries, irons and dry-cleans their clothes to within an inch of their lives and then discards the clothes, too often into landfill as opposed to re-use or recycling.

But, despite all of these complex challenges, we believe in the positive power of fashion! We believe that sustainable fashion can be a norm, not a niche. Through this guide, we hope to educate you to kick start you to join this game-changing approach to sustainable fashion design, production and consumer-use so that sustainable fashion does become the norm!

DEEPER INTO THE ISSUES TEXTILE WASTE



The fashion and textile industries generate textile waste during production and consumer use. However, textile waste is now becoming a serious environmental concern because of its sheer amount. With fast fashion, comes fast and vast production, this increased textile waste. Globally, textile waste is flowing from factories and cascading from closets too often into landfill. Sadly, across the board, textile recovery rates for recycling remain relatively low, despite textiles being considered almost 100 percent reusable or recyclable.

Here are some statistics to fire you up to want to reduce textile waste...

- In China, the total annual production of textile waste is estimated to be over 26 million tonnes. The market for the recycling of secondhand clothes has huge potential; the maximum revenue could be as high as RMB60 billion (China Association of Resource Comprehensive Utilization, 2013)
- In Hong Kong, approximately 106,945 tonnes of textiles collected by the municipality were sent to landfills in 2012 (Hong Kong Environment Protection Agency, 2013)
- In the UK, an estimated 0.8 to 1 million tonnes of all textiles are sent to landfill each year (WRAP Textile Flow & Market Opportunities Report, 2013)
- In the UK, used clothing accounts for approximately 350,000 tonnes of landfilled textiles, estimated to be worth £140 million (WRAP Valuing Our Clothes, 2012)

However, the good news is that textile waste reduction is increasingly under focus by governments, private sector, NGOs and by fashion designers big to small around the world. This is partly because of the push - limited landfill space is accelerating the need for recycling - and the pull - advanced waste management systems, increased technical know-how and changing designer and consumer sentiments that are making textile recycling more environmentally and economically exciting.

DEEPER INTO THE ISSUES NATURAL RESOURCES



The fashion and textile industries use vast amounts of natural resources - water, oil and land throughout their entire lifecycle, from production of fibers, manufacturing, distribution, consumer use (imagine all that washing, drying, ironing and dry cleaning) to the clothes' end-of-life at disposal.

Here are some statistics that will leave you wishing that new natural resources could grow on trees...

- It is estimated that the global textile industry uses 378 billion liters of water each year (Clay, J, "World Agriculture and the Environment: A Commodity by Commodity Guide to Impacts and Practices", 2004)
- World Bank estimates that textile dyeing and treatment contributes up to 17-20 percent of total industrial water pollution (World Bank, 2011)
- The fashion and textile industries are one of the world's major energy users and the fuel consumption in textile mills is almost directly proportional to the amount of water the mills uses (Indian Journal of Fibre and Textile Research, Vol. 37, June 2012)
- The natural resources that go into fibre production every year demand approximately 132 million tonnes of coal and between six and nine trillion litres of water (Rupp, Jurg, "Ecology and Economy in Textile Finishing", Textile World, Nov/Dec 2008)



- Cotton accounts for 82.5 percent of all natural fibres used in the textile industry. (EST/FAO and ICAC, 2010)
- The cultivation of cotton relies on heavy consumption of freshwater and it can take around 2,700 liters of water to make the cotton needed to produce one single T-shirt (WWF, 2013)
- Synthetic fibres account for 60 percent of world's total fibre demand that are made from petrol, a non-renewable natural resource (World Apparel Fibre Consumption Survey, 2013)
- 1 trillion kilowatt hours are used every year by the global textile industry, which equals 10 percent of the total carbon impact (Textile Exchange 2010 Global Market Report on Sustainable Textiles)
- The textile dyeing process is highly wasteful; between 70 and 150 litres of water may be required to dye 1kg of textiles (Chakraborty et al., 2005; Babu et al, 2007)

However the good news is that consumers are starting to change and demand products that are less dependent on natural resources. Designers must increasingly respond to this to capture this market.

DEEPER INTO THE ISSUES CHEMICALS AND POLLUTION





The fashion and textile industries use and release a wide range of chemicals at various stages during the product's lifecycle that, especially when untreated, causes serious threat to our living environment. Textile production is a major contributor of environmental pollution because of its high greenhouse gas emissions and its contamination of air and fresh water supplies. Plus, in today's global fashion supply chains the widespread transportation of clothes and textiles leads to increased pollution. The story does not end here because chemicals continue to be released into the water system when consumers wash and dry-clean their clothes.

Here are some statistics that will leave you lunging for your gas mask...

- The carbon footprint of one T-shirt is estimated to be approximately 15 kg.
 This means that a T-shirt's carbon footprint is approximately 20 times its own
 weight (Carbon Trust, Working with Conventional Clothing: Product Carbon
 Footprinting in Practice, 2011)
- An estimated 8,000 different synthetic chemicals are used throughout the world to turn raw materials into textiles, many of which may be released into freshwater systems (Earth Pledge)
- Many industry chemicals, such as azo dyes, phalates, nonylphenol and ethoxylates (NPEs), are persistent bio-accumulative chemicals. These can be toxic to the aquatic environment because they can build up in sediment or aquatic life, which may then pass up through the food chain and even to humans. (Toxic Threads Greenpeace, 2012)
- Conventionally grown cotton uses more insecticides than any other single crop.
 Cotton uses 10 percent of total pesticide use worldwide (worth a staggering USD2.6 billion per year) and nearly 25 percent of insecticide use worldwide (Pesticide Action Network)

However the good news is that consumers are increasingly aware of chemical pollution – both to their own health and that of the planet – and are increasingly demanding less chemical damage. For a fashion designer, it pays to wise up on chemical use.

SO, WHAT CAN I DO ABOUT THIS?

Some of these challenges may seem huge - but please don't be disheartened. We believe that fashion can be more environmentally sustainable and that the people involved in the fashion supply chain can benefit fairly. But to create this positive effect, rethinking is vital on how fashion is being designed, sourced, produced, consumed and disposed.

You, fashion designers, are inspiring because you hold a powerful thread that can re-sew the industry. Designers are the inspiration behind every design and the sustainability of a product is ultimately in designers' hands. Researchers have found that designers influence 80-90 percent of the environmental and economic cost of a product. This is great news, because it means that you can have positive influence on the fashion industry through how you source your materials, your design methods and your production locations. You can even influence your customers during the consumer-use phase and you can influence your clothing's ultimate disposal methods. That's power to you!



SO, HOW DO I USE MY POWER?

1 GET INFORMED

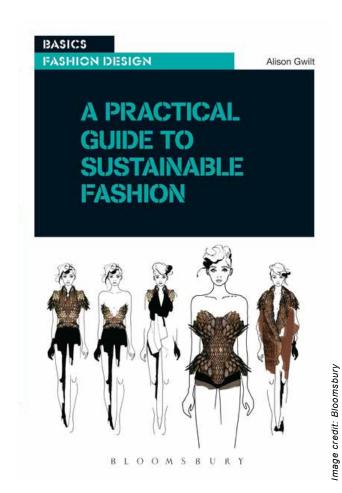
Educate yourself about the impacts that your design choices have on the environment. There are many books, videos, blogs, websites, events and courses (and good old Google!) that are packed with information about sustainable fashion.

But don't feel overwhelmed! You can't change the entire industry in one day. Instead, start off your sustainable design journey with your hot topic that interests, shocks or inspires you the most, be it water pollution or textile waste or something else.

Here are some of our favourite educational and inspiring resources to help you find your hot topic and to recharge your batteries to fuel your sustainable design career...forever.



Redress produced several introductory online videos with a focus on textile waste reduction. These include the fashion lifecycle and the three sustainable design techniques of zero-waste, up-cycling and reconstruction and sourcing textile waste. The videos are compact and from the heart and contain interviews with global leaders in sustainable fashion, so certainly ones to watch. See www.ecochicdesignaward.com/videos



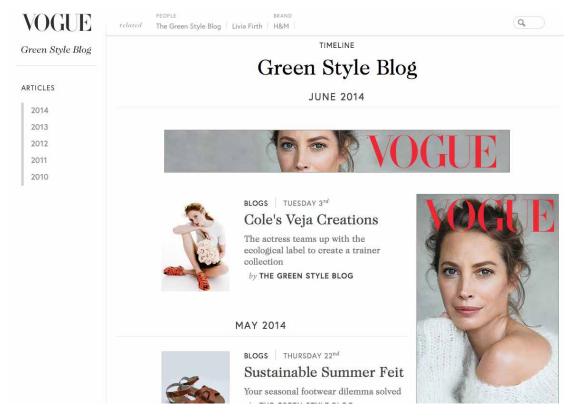
British author, Alison Gwilt's book, A Practical Guide to Sustainable Fashion, is a great resource as it speaks directly to designers, giving them the knowledge about the product's full lifecycle and providing many design examples and exercises. A top read to get to the key points.



Sustainable style icon Livia Firth is one of the most glamorous voices in sustainable fashion. Her Twitter www.twitter.com/liviafirth will feed you with the latest news in sustainable luxury fashion and bring you news from the world's most dazzling events.



The Copenhagen Fashion Summit is an event that gathers some of the most influential people in sustainable fashion together to discuss the fashion industry's environmental and social responsibilities and solutions.



Check out Vogue UK's Green Style blog www.vogue.co.uk/person/the-green-style-blog to be informed and utterly inspired about the latest trends in the world of sustainable fashion by the fashion leaders themselves. If it's in Vogue, then it must be good!



The US online magazine, Ecouterre.com website is dedicated to providing industry professionals and consumers with the latest news about sustainable fashion designers, production technologies and textiles, publications and competitions. Sign up to their weekly newsletter for up-to-date happenings...

NOW, START ASKING QUESTIONS (AND GET INSPIRED!)

Today's global supply chains make many consumers feel very removed from the manufacturing of their purchase. Few designers are aware of the true cost of their designs and many are not equipped with sufficient information about their own products to answer increasing questions from their customers. However, by fully informing yourself about the impacts of your designs, you can go on to take more control of your supply chain and to better communicate with your customers.

Therefore, we suggest you take a step back and start asking questions to yourself, your colleagues, your suppliers and your buyers to find out where, how and by whom your designs are made. You can begin to look at the environmental aspect of your own production, which could be a great source of inspirations.

Ideas to whet your appetite for questions are...

What natural resources are required to produce the textiles that I wish to use?
How can I make the most out of these resources in my collections/business?
(Don't forget that fashion and textile production requires a large amount of natural resources...)

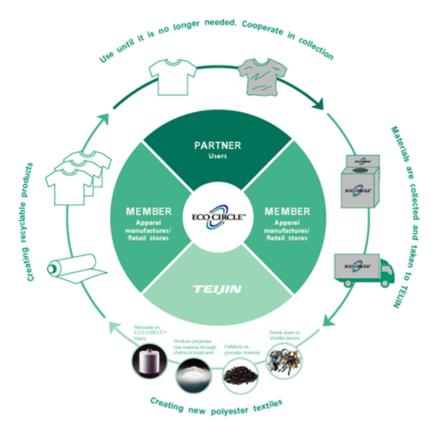


Image credit: Teijin Limited

Get inspired by Japanese company Teijin who developed their revolutionary 'ECO CIRCLE™' recycling technology to recycle used polyester garments into 'new' recycled polyester, thereby reducing petrol consumption. Teijin has partnered with brands, including Patagonia and Quiksilver, to reduce post-consumer polyester waste and to provide recycling solutions for selected brands that offer take backs services.

• What are the environmental impacts of my textiles? Are there more environmentally-friendly alternatives available that I can use? (Don't forget that textile production is harmful to our environment through water pollution, use of hazardous chemicals and more...)



Get inspired by Malaysian designer Melinda Looi who established her brand, Mell Basics, which uses certified organic cotton as an alternative textile to reduce chemical pollution.

Will my collection leave a huge carbon footprint at the production stage? What
technologies are available to reduce the impacts during garment processing?
(Don't forget that water is a natural resource that is used in large quantities during
the textile and garment processing stages...)



Get inspired by US brand Levi's who in 2011 launched their Water<Less denim collection that reduces the amount of water used in garment finishing by up to 96 percent for certain products.



Get inspired and informed by US brand Nike who developed The Materials Sustainability Index (MSI), which is a cradle-to-gate index informed by lifecycle assessment that measures the environmental impact of individual materials, such as nylon and recycled polyester. This online tool is used by Nike's design team and their global supply chain and is available on their website for the public.

 Where are my designs made? What are the environmental impacts of my choice of factory? Can I choose an environmentally certified factory and production process? (Don't forget that the widely adopted trend of outsourcing materials and production to developing countries for lower labour and production costs has increased carbon emissions due to greater transportation demands...)

Made in USA We we to share! We will also sendit: American Aboase!

Be inspired by US brand American Apparel who strive to reduce pollution and carbon emissions associated with their products. They have a vertical production line and distribution operation in Los Angeles that minimises carbon emissions and provides job opportunities to the diminishing local garment manufacturing workforce.

Does a lot of wastage arise from my production? What happens to this waste?
 Can I reuse it? (Don't forget that modern garment making leads to a large amount of textile waste at the production stage, through textile sampling, cut and sew waste, garment sampling and to widespread use of shipping...



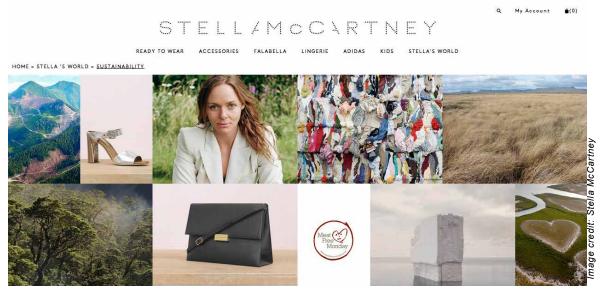
Get inspired by Japanese lifestyle product brand, Muji who reuse cotton yarn waste, generated in their production, by unraveling their waste yarns and then reknitting them into new products, like socks.

 How are my orders being shipped? Is there a more environmentally conscious option? How are my products packaged? (Don't forget that fashion's carbon footprint is increasing as the fashion supply chain continuously expands to new areas around the world and because of today's modern online shopping culture...)



Get inspired by British organisation, Carbon Trust who developed a carbon footprint tool to help companies to measure their carbon footprints and to provide advice about reducing carbon footprints.

 How do my customers wash and care for their clothes? How do my customers dispose of my designs? What can I do to reduce consumer use impacts? (Don't forget that your customer creates negative environmental impact as they use and dispose of your designs and that you can influence your customer about better consumer-use practices...)



Get inspired by British designer, Stella McCartney who features a sustainability section on her brand's website that gives consumers environmental tips about how to green their wardrobe and to reduce their carbon footprint.

3 RETHINK DESIGN

Now that you have some understanding about your impact as the designer in the product's lifecycle, you now need to think about what design techniques and raw materials you can use to reduce your product's impact on the environment. Think about your production and distribution methods, the end users of your designs and product's end-of-life, as these will hugely influence your product's overall environmental impact.

Here are some design questions that will re-design the way you think...

- · What sustainable raw materials are available to compliment my designs?
- What design techniques can I adopt to minimise my negative environmental impacts?
- · How will my designs be worn?
- How can my designs stay in the fashion lifecycle for longer?
- How do I inform my customers about how to care, wash, reuse and recycle my designs?



Get inspired by US designer, Alabama Chanin who uses organic textiles and reclaimed materials to compliment her designs, which themselves are based on traditional design techniques, such as appliqué.



Get inspired by emerging Malaysian designer, Pearly Wong who dedicates her design practice to zero-waste design technique in her aim to reduce waste at the source.



Get inspired by emerging US designer, Hannah Learner who up-cycles textile scraps from other designers in order to reduce the environmental impacts of her creations.



Get inspired by Hong Kong emerging designer, Glori Tsui who designs clothes with multifunctional purposes to reduce the need to purchase multiple new fashion items.



Get inspired by emerging Chinese designer, Momo Wang who launched her 'Third Hand' collection in which she reconstructed unwanted clothes from her own wardrobe and salvaged textiles to reduce the need to use virgin textiles.



Get inspired by Swedish denim brand, Nudie Jeans who insert a consumer guide about better washing and consumer use into the back pocket of every pair of jeans they sell. They also offer a free repair service at their stores and give away a free repair kit for those customers who want to DIY their jeans. All of this aims to prolong their product's life and reduce waste and the demand for virgin resources.

LEARN MORE

WATCH THIS...

Bonnie Chen: From Fashion Waste to Want by Redress

Youtube: youtu.be/hYytW06uKio?list=UU1Jc1jrlAyj7JKrKcDNmVEA

Youku: v.youku.com/v_show/id_XNjkwNTI0NTYw.html

China Blue, Micha Peled, 2005

Consumer Care by Redress and Miele

Youtube: www.youtube.com/watch?v=fNnxPKRndkY&feature=c4-overview&list=UU1Jc1jr

IAyj7JKrKcDNmVEA

Youku: v.youku.com/v_show/id_XNTQ3MzkwNDI0.html

Fashion Futures by Forum for the Future

Youtube: www.forumforthefuture.org/animations

How your T-shirt can make a difference by WWF

Youtube: www.youtube.com/watch?v=10ypcpbWIFo

Redressing the Fashion Industry: Orsola de Castro at TEDxLondon

Youtube: www.youtube.com/watch?v=1mbqwOK9kNM

The EcoChic Design Award - Sustainable Design Technique Zero-waste

Youtube: youtu.be/rikkAuaoUGs?list=UU1Jc1jrlAyj7JKrKcDNmVEA

Youku: v.youku.com/v_show/id_XNTQ3MzkwNDI0.html

The EcoChic Design Award - Sustainable Design Technique Up-cycling

Youtube: youtu.be/U_f_MNIUC54?list=UU1Jc1jrlAyj7JKrKcDNmVEA

Youku: v.youku.com/v_show/id_XNTQ3MzY1NDQ4.html

The EcoChic Design Award - Sustainable Design Technique Reconstruction

Youtube: youtu.be/YDkO52LG-U8?list=UU1Jc1jrlAyj7JKrKcDNmVEA

Youku: v.youku.com/v_show/id_XNTQ3MzIwMzg0.html

The EcoChic Design Award - Sustainable Design Technique Sourcing

Youtube: youtu.be/DTfBOfFYq80?list=UU1Jc1jrlAyj7JKrKcDNmVEA

Youku: v.youku.com/v show/id XNTQ3MDgzNDk2.html

The Fashion Lifecycle by Redress

Youtube: www.youtube.com/watch?v=sm0XyyqOq7E&feature=share&list=TL_2dVxvo

aBRa

Youku: v.youku.com/v_show/id_XNTQ2ODY1ODQw.html

The New Black - A Film About the Future of Clothing

Youtube: youtu.be/XCsGLWrfE4Y

Trashed Film (Trailer)

Youtube: www.youtu.be/7UM73CEvwMY

You are what you wear - Christina Dean at TEDxHKBU

Youtube: www.youtube.com/watch?v=cduGLWhm1LM

READ THIS...

A Practical Guide to Sustainable Fashion by Alison Gwilt

Cradle To Cradle: Remaking The Way We Make Things by Michael Braungart

Deeper Luxury Report by WWF www.wwf.org.uk/deeperluxury

Design Activism: Beautiful Strangeness for a Sustainable World by Alastair Fuad-Luke
Design Is The Problem: The Future Of Design Must Be Sustainable by Nathan Shedroff
Dirty Laundry 1 - Unraveling the corporate connections to toxic water pollution in China
by Greenpeace www.greenpeace.org/international/Global/international/publications/toxics/Water
201 1/dirty-laundry-report.pdf

Dirty Laundry 2 - Hung to dry out by Greenpeace www.greenpeace.org/international/Global/international/publications/toxics/Water%202011/dirty-laundry-report-2.pdf

Dirty Laundry Reloaded by Greenpeace www.greenpeace.org/international/Global/international/publications/toxics/Water%202012/DirtyLaundryReloaded.pdf

Eco Fashion by Sass Brown and Geoffrey B. Small

Ecotextile News www.ecotextile.com

Ecotextiles: The Way Forward For Sustainable Development In Textiles, Edited by Mohsen Miraftab and Richard Horrocks

Ecouterre www.ecouterre.com

Fashion Futures Report by Forum for the Future www.forumforthefuture.org/project/fashion-futures-2025/overview

Fashion & Sustainability: Design for Change by Kate Fletcher and Lynda Grose

Going Global: The Textile and Apparel Industry by Grace I. Kunz

Good Fashion by Oxfam HK www.oxfam.org.hk/web/files/csr/Good Fashion en.pdf

Guardian Sustainable Business www.theguardian.com/sustainable-business

Guidelines - A Handbook On The Environment For The Textile And Fashion Industry by Holly Louise Syrett

How Bad are Bananas? The Carbon Footprint of Everything by Mike Berners-Lee **Moral Fibre – A guide for students of fashion and textile design** by PAN UK www.pan-uk.org/publications/moral-fibre

NICE 10 Year Plan by NICE Fashion www.bsr.org/files/NICE_10_Year_Plan_2009.pdf
NICE Consumer Research Summary by BSR and NICE www.bsr.org/reports/BSR_NICE_Consumer_Discussion_Paper.pdf

Recycling in Textiles Edited by Y Wang

Reducing Waste by Re-using Textiles, Rachel Gray, WRAP 2012 www.wrap.org.uk/sites/files/wrap/RWM 2012 Rachel Gray Reducing waste by re-using textiles.pdf

Reducing the Environmental Impacts of Clothing Cleaning by Department of Environment, Food and Rural Affairs (Defra)

ReFashioned: Cutting-Edge Clothing from Upcycled Materials by Sass Brown and Natalie Chanin

Shaping Sustainable Fashion: Changing The Way We Make And Use Clothes by Alison Gwilt and Timo Rissanen

Social Responsibility in the Global Apparel Industry by Marsha A. Dickson, Suzanne Loker and Molly Eckman

Sustainable Fashion And Textiles: Design Journeys by Kate Fletcher

Sustainable Fashion: Why Now? A conversation exploring issues, practices, and possibilities by Janet Hethorn

Sustainable Planet - Solutions for the 21st Century by Juliet Schor and Betsy Taylor Task Force on Sustainable Lifestyles by UNEP

www.unep.fr/scp/marrakech/taskforces/pdf/SLT%20Report.pdf

The Travels of a T-Shirt in the Global Economy: An Economist Examines the Markets, Power and Politics of the World Trade by Pietra Rivoli

Toxic Threads 1 - The Big Fashion Stitch Up by Greenpeace www.greenpeace.org/sweden/Global/sweden/miljogifter/dokument/2012/Toxic_Threads_The Big_Fashion_Stitch_Up.pdf

Toxic Threads 2 - Putting Pollution on Parade by Greenpeace www.greenpeace.org/international/Global/international/publications/toxics/Water 2012/ToxicThreads02.pdf

Trash to Trend, Using Upcyling in Fashion Design by Reet Aus www.reetaus.com/PDF%20 download/reet_aus_doctoral_thesis.pdf

You Know More Than You Think You Do: Design as a Resourcefulness and Self Reliance by Emily Campbell, Royal Society of the Arts

 $www.thersa.org/__data/assets/pdf_file/0006/215457/RSA_design and society_pamphlet.pdf$

Waste Couture: Environmental Impact of the Clothing Industry by Luz Claudio, Environmental Health Perspectives www.ncbi.nlm.nih.gov/pmc/articles/PMC1964887/pdf/ehp0114-a00449.pdf

Well Dressed by Cambridge University www.ifm.eng.cam.ac.uk/uploads/Resources/Other_Reports/UK_textiles.pdf

BE INSPIRED BY...

China Water Risk www.chinawaterrisk.org
Ethical Fashion Forum www.ethicalfashionforum.com
Ethical Fashion Japan www.ethicalfashionjapan.com
Greenpeace www.greenpeace.org/international/en
NICE Fashion www.nicefashion.org/en
Pesticide Action Network (PAN) UK www.pan-uk.org
Sustainable Apparel Coalition www.apparelcoalition.org
Textiles Environment Design www.tedresearch.net
Textile Future Research Centre www.tfrc.org.uk
WRAP (Waste & Resources Action Programme) www.wrap.org.uk

LEARN THE LANGUAGE...

Carbon footprint is a measure in units of the total amount of greenhouse gases that are emitted due to human activity.

Closed loop design is when a product is designed to have another function after its use, thereby eliminating all waste. In this way, a used product's output becomes the input for a new product or function.

Clothing banks are garment recycling collection stations put up in a community, often by a charitable organisation, where consumers can recycle their used clothing.

Clothing drives are events where unwanted clothing is collected and often donated to charity or sold to raise funds for charity.

CO2 emissions is the amount of carbon dioxide (CO2) released from fossil fuels into the atmosphere.

Corporate Social Responsibility (CSR) is a voluntary initiative by companies to reduce the negative social and environmental impacts of their businesses.

Cradle to cradle is a closed loop design process that is free of waste. When a product is no longer useful, it becomes material for another product.

Cut-and-sew waste is excess textile from the cutting and sewing phase of garment manufacturing. It is often considered waste and is discarded due to its uneven and small formats.

Damaged textiles are unfinished textile products that have been damaged, for example colour or print defects.

Down-cycling is to recycle a material into something of lower quality.

Eco is a prefix for ecology and usually refers to ecological concerns or benefits.

Eco-chic is something that is environmentally conscious as well as being stylish.

Eco-labeling are environmental claims made on a product or through advertising using certifications, standards, logos, symbols or certain strong types of sustainability vocabulary.

End-of-rolls are factory surplus textiles that have been leftover from garment manufacturing.

Fast fashion is a term that refers to low-cost, low-quality clothing that has been rapidly produced to replicate catwalk trends.

Greenhouse effect is the trapping of the sun's warmth in a planet's lower atmosphere due to the presence of gases, such as carbon dioxide, methane and water vapour, which allow incoming sunlight to pass through them but absorb heat radiated back from the earth's surface.

Greenhouse gas is a gas in the atmosphere that absorbs infrared radiation and traps heat inside the atmosphere, thereby contributing to the greenhouse effect.

Green-washing is a term given to misleading, exaggerated or untrue claims about a product's environmental benefits that are given to consumers.

Lifecycle is the resource extraction, manufacture, distribution, use, disposal and recycling of a product.

Pesticides are chemical or biological agents used to kill or destroy any type of pests or insects. In the fashion industry, conventionally grown cotton uses various pesticides, which have damaging effects to humans and wildlife.

Post-consumer waste is waste collected after the consumer has disposed of it.

Pre-consumer waste is manufacturing waste that has not reached the consumer.

Reconstruction is the process of making new clothes from previously worn garments or preformed products.

Reduce, reuse, and recycle are the so-called 3Rs that classify waste management, according to their order of importance. Reduce your consumption and usage, reuse items again and recycle materials.

Recyclable is a material that can be reused and turned into a new usable material or product. **Secondhand clothing and secondhand textiles** are clothing, fashion accessories and textiles that have been used and discarded by consumers.

Supply chain are the steps and resources involved in moving a product from raw material to consumer.

Sustainable fashion is clothing that is produced with respect to the environment and social impacts throughout its lifespan.

Sustainable textile is a textile that is produced with minimal environmental impact.

Sustainability is a lasting system and process that meets the current population's needs while preserving for the future.

Swap/Swish is the free exchange of garments between people. It is a form of direct recycling through swapping of unwanted garments.

Textile recycling is reusing or reprocessing used clothing, fibrous material and/or textile scraps from the manufacturing process.

Textile waste is the textile by-products of the manufacturing of garments, fabrics, yarns or fibres that are deemed unusable for its original purpose by the owner.

Transparent business is being open and honest about your business practices.

Triple bottom line is a term that refers to a system that some companies use where 'people, planet, profit' are considered beyond their financial outcomes.

Up-cycling is the recycling of a material into a product of higher quality.

Zero-waste is a design technique that eliminates textile waste at the design stage.