

CO EXPO 22

# **PRO Materials Masterclass Manual**

# **CO**

**How to source fabrics to reduce  
climate impact**

---

- **Content**

- 3 Sourcing Fabrics To Reduce Climate Impact
- 11 Climate Impact Sourcing Solutions
- 18 Additional Resources on CO
- 22 Fabric Suppliers on CO



# **Sourcing Fabrics To Reduce Climate Impact**



- **A carbon-hungry business**



# Textile Production 38% GHG

McKinsey & Co Fashion On Climate Report, 2020

The largest climate impact is of course carbon emissions. And as we all know, fashion is a carbon hungry business, particularly textile production which represents 38% of fashion's total annual GHG emissions.

Despite knowing this, our understanding of where emissions occur in specific supply chains is very limited.



## **The Data Gap**

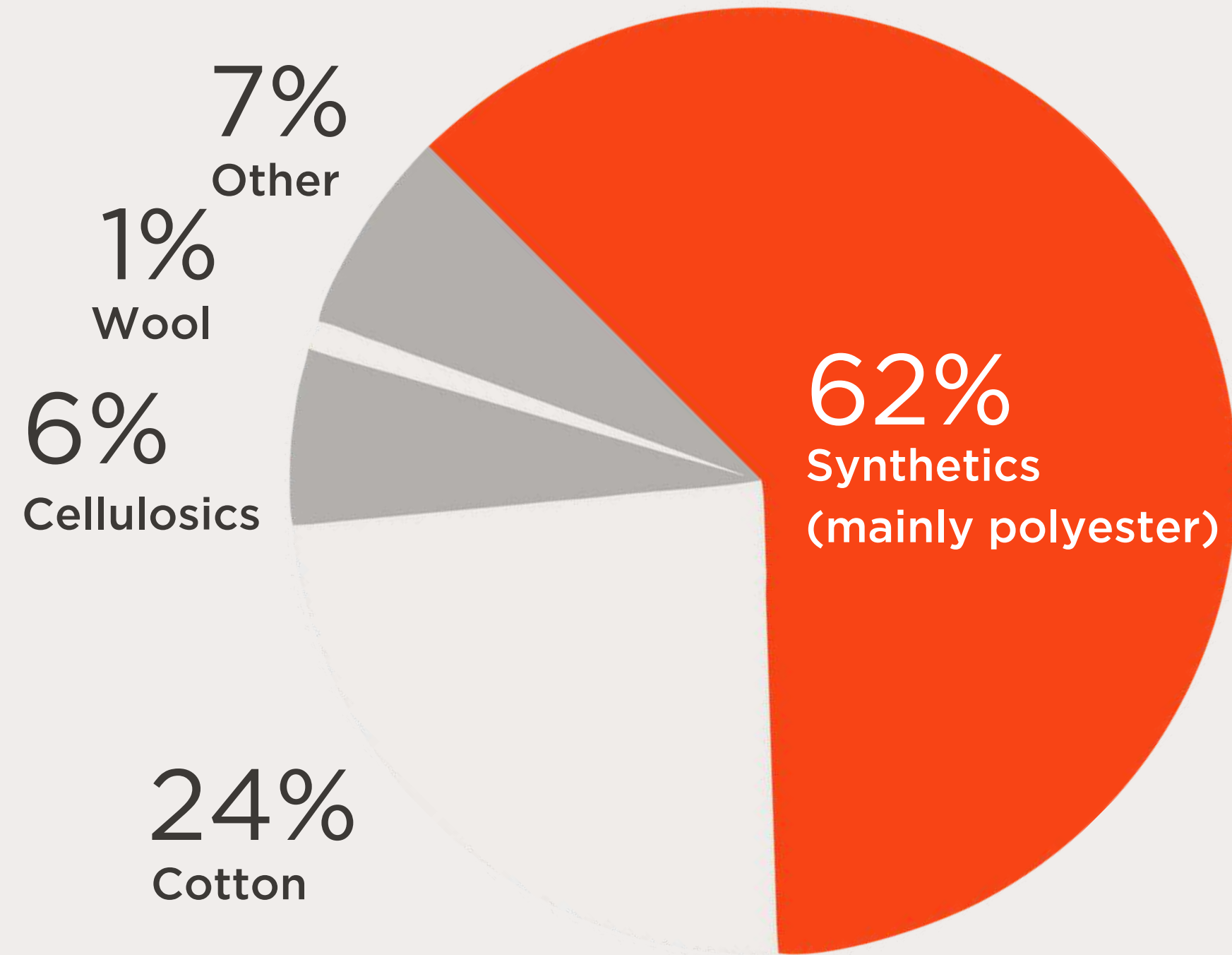
“There are still very, very few brands who know where their stuff comes from in the supply chain, and even fewer of them have entered into active relationships with those suppliers to reduce their carbon footprint.”

Linda Greer  
Environmental Scientist

## ● Market Share of Fashion Fibres, 2020

So let's talk about fabrics and their impact.

This is the current state of play. Synthetics now dominate the market accounting for 62% of fashion fibres in 2020 - Textile Exchange - Preferred Fibers and Materials Market Report 2021



Textile Exchange - Preferred Fibers and Materials Market Report 2021



## ● Carbon and biodiversity impact



2015 Polyester Emissions

**= 185 coal fired  
power plants**

Source: MIT



Synthetic Fibres

**= 92% of  
microplastics in  
the Arctic**

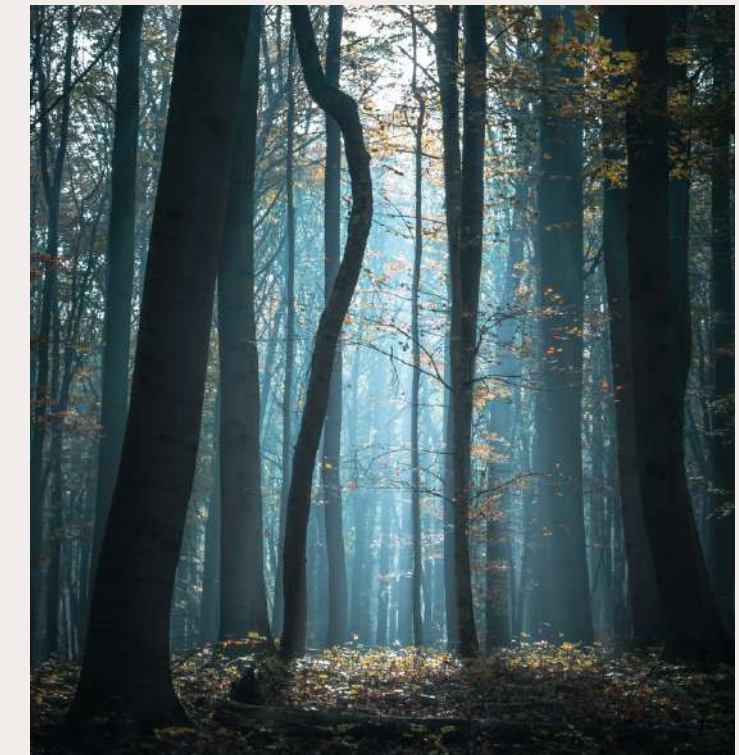
Source: University of British Columbia, 2021



Cotton Cultivation

**= 4% pesticides  
10% insecticides**

Source: BeeAware Cotton, n.d.



Viscose Production

**= 50% from  
endangered or  
ancient forests**

Source: Canopy, 2020

## • Positive environmental impact of sustainable material sourcing

**1.37 million tonnes  
CO<sub>2</sub>**

of greenhouse gas emissions  
saved



Equivalent to driving 5.4  
billion km in an average-sized  
car

**28 billion  
megajoules**

of fossil fuel energy saved



Equivalent to powering  
631,014 US homes for one year

**649 billion  
litres**

of water saved



Equivalent to the water needs  
of 582 million people for one  
year

Materials Change Insight Report: The State of Fiber and Material Sourcing, 2020

The good news is that through choosing preferred fibres, there are significant gains to be made.

According to the Materials Change Insight Report, published by Textile Exchange in 2020.



## Recycled and Regenerative Energy Savings

There are substantial savings to be made when switching from conventional fibres to recycled or regenerative alternatives. According to studies by Patagonia, there is an 80% reduction in CO2 compared to conventional cotton when using regenerative cotton. Up to 74% reduction in energy used when using recycled wool. And a reduction of 33% when switching from virgin to climate beneficial wool - which embraces regenerative farming practices.

Energy used compared to conventional fibre counterpart



**Regenerative Cotton**

source: Patagonia



**Recycled Wool**

source: LCA by Manteco



**Climate Beneficial Wool**

source: Fibershed

So when it comes to fabric sourcing, we have the potential as designers, buyers and sourcing managers to make a real positive difference to the planet through the fabrics and fibres we choose. But as we all know we need to be doing much much more if we are to reduce our climate impact.



## **The elephant in the room**

“Our growth calculations, adjusted to take into account the likely impact of COVID-19, show that the industry is set to overshoot its target by almost twofold, with emissions of 2.1 billion metric tons of CO2 equivalent in 2030, unless it adopts additional abatement actions.”

McKinsey & CO 2020



# **Climate Impact Sourcing Solutions**

## • Third Generation Biosynthetics



Commercially available bioplastics can now be made from plant feedstocks but is this a good thing? Using more land to grow crops when a significant percentage of the world's population is living with food insecurity raises important ethical questions.



Image: Algalife

The good news is that some third generation biosynthetics made from algae do not require additional feedstocks, requiring just water, CO<sub>2</sub> and sunlight.



## ● Synthetics: Mining plastics from waste

In Europe we currently recycle roughly a third of our plastic waste. In the US, in 2020 the rate was even less at about 12 percent. The plastic in our landfill sites presents a potential resource for mining polymers for synthetic fibres. A 2017 life-cycle analysis found that manufacturing rPET generates 79% less carbon emissions than producing its virgin counterpart. So it could help reduce emissions as well as tackle waste.



The process of waste reclamation is currently complex and expensive, involving the removal of hazardous materials and the sieving, sorting and washing of waste. But this could change in the future if legislation is put in place to reduce the production of virgin plastics.

## Regenerative Agriculture

Regenerative organic cotton is not only less carbon intensive than conventional cotton but can actually help reduce emissions through the sequestration of carbon into the soil. Using farming techniques such as no tilling and growing cover crops, regenerative farming prioritises soil health, promotes biodiversity and cleans up waterways.

It is worth noting that even regeneratively grown fibres contribute to GHG emissions as well as land and water use and there is speculation over how long lasting soil carbon stores last.



Image: Patagonia



## Seed-to-Sew Fashion

Slow fashion initiatives such as the seed-to-sew model used by Oshadi, not only mitigate emissions through using traditional Indian farming methods inline with regenerative agriculture practices but minimise their footprint by ensuring all the cotton is grown, spun, weaved and sewn into clothing all within a 100km radius of the farm.

Initiatives like this reflect a growing trend in connecting fashion back to farms and getting to grips with fibre production, from ensuring responsible animal husbandry to tackling biodiversity and reducing emissions.



Image: Oshadi



## ● **Pioneering Partnerships**

Partnerships between brands and suppliers are demonstrating just what can be achieved through long term collaboration. Nishanth Chopra, founder of Oshadi, explained how working over a number of years with brands such as Christie Dawn, he has been able to substantially grow his business and the number of hectares of regeneratively grown cotton. This is a real coup for smaller brands such as Christie Dawn, who can genuinely claim to have 100 percent regeneratively grown cotton collections at a time when larger players are only just starting to develop regenerative agriculture sourcing programs.



Image: Christie Dawn



## ● Keeping costs down

Commit to one particular fabric and use that fabric across a number of styles to build scale. For womenswear, offer the fabric, printed and plain across several styles. If you can't afford to do everything in GOTS certified organic fibres, move to the next best option for a proportion of your collection instead. By consolidating your fabric sourcing and using preferred fibres you are helping to reduce emissions in the most carbon hungry phase of a garment's lifecycle.



Image: Seasalt



# **Additional Resources on CO**



# Resources// Regenerative Cotton



## ENVIRONMENTAL

### How Fashion Is Working To Protect Biodiversity

Protecting biodiversity is essential to the health of our planet and to the continued future of our industry. CO shines a light on the brands working to not only minimise their impact but to actively restore ecosystems.



## ENVIRONMENTAL

### Kering & Savory Institute: Regenerative Sourcing In Fashion

We take a look at the collaboration between Kering and The Savory Institute, announced in 2018, that aims to recognise the positive impact regenerative agriculture can have in the fashion industry.



## REPORTS & TOOLS

### The Leading Biodiversity Fashion Initiatives You Should Know About

A roundup of the leading biodiversity and fashion initiatives and programmes.





# Resources// Sourcing Natural Fibres



FIBRES & FABRICS

## Fabric Switch: Sourcing Sustainable Cotton

A guide for professionals looking to source cotton with a lower environmental and social impact.

PRO



FIBRES & FABRICS

## Fabric Switch: Sourcing Sustainable Silk

A guide for professionals looking to source more sustainable silk and alternative vegan fibres.

PRO



FIBRES & FABRICS

## Fabric Switch: Sourcing Sustainable Wool

Your guide to sustainable alternatives to wool - including which certifications to look out for, recycled wool, and vegan wool alternatives. Cover: Manteco Recycled Wool

PRO



FIBRES & FABRICS

## Fibre Briefing: Hemp

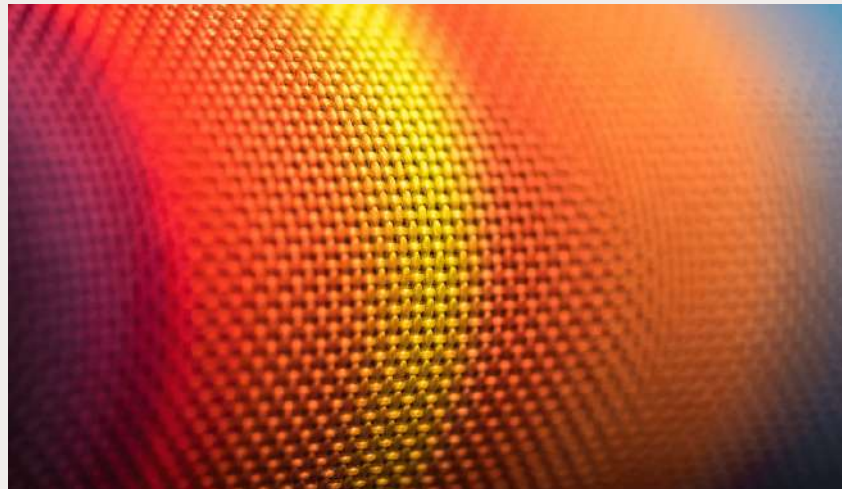
Used in textiles since at least Roman times, hemp derives from the fibres of the cannabis plant. It is grown from a different - although very similar-looking - cultivar to the plant that produces the well-known narcotic.

PRO





# Resources// More Sustainable Synthetics



## FIBRES & FABRICS

### Fabric Switch: Sourcing Sustainable Polyester & Synthetics

Our guide on where to source alternatives to conventional polyester and synthetic fabrics including both recycled and bio-based materials.

PRO



## ENVIRONMENTAL

### Fabric Switch: Sourcing Sustainable Stretch

Our UPDATED guide for professionals looking to incorporate sustainable stretch fabric alternatives in their swimwear, activewear, lingerie, and more.

Image: Rubymoon

PRO



## REPORTS & TOOLS

### Is Recycled Polyester Green or Greenwashing?

Recycled polyester is becoming increasingly ubiquitous in the fashion market, but some experts say the material isn't a long-term solution or that sustainable. CO takes a closer look.

PRO



## FIBRES & FABRICS

### Fabric Switch: Sourcing Sustainable Viscose

Viscose has been a favourite fibre for brands and designers for decades. However, its negative environmental impact has led to new, more sustainable innovations in the way it's produced.


PRO





# **Fabric Suppliers on CO**






**Coccccon Crafts Loom**

MATERIALS SUPPLIER

[Send Message](#)

India




**Moral Fibre**

BRAND & SUPPLIER

[Send Message](#)

India




**MTI USA**

SOURCING AGENCY

[Send Message](#)

United States




**Nativa™**

MATERIALS SUPPLIER

[Send Message](#)

Italy




**Naturtex Eko Peru**

BRAND & SUPPLIER

[Send Message](#)

Peru



**Organic Lace by Modespitze**

MATERIALS SUPPLIER

[Send Message](#)

Germany




**Pigeonwishes**

MATERIALS SUPPLIER

[Send Message](#)

United Kingdom




**PYRATEx®**

MATERIALS SUPPLIER

[Send Message](#)

Spain




**Symphony Fabrics**

MANUFACTURER

[Send Message](#)

India



**Usha Yarns**

MATERIALS SUPPLIER

[Send Message](#)

Switzerland



# COMMON OBJECTIVE

Let's build a better fashion industry.

[info@commonobjective.co](mailto:info@commonobjective.co)

[www.commonobjective.co](http://www.commonobjective.co)