

# **The Environmental and Social Impact of Textiles**

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# Textiles: Industry

- \$3 trillion global industry
- 150 billion garments
  - 20 pieces of clothing per person
  - 60% petroleum-based synthetics
  - 40% agriculturally derived



# Impacts: Environmental

- Water:

- Washing clothes releases half a million tons of microfibers into the ocean each year
- Textile dyeing is the 2<sup>nd</sup> largest polluter of water
- Textile production accounts for 20% of global wastewater
- 1,800 gallons of water to make a pair of jeans

- Climate Change Impacts:

- 10% of global carbon emissions
- By 2050 the fashion industry will use up ¼ of the world's carbon budget
- Every second, the equivalent of one garbage truck of textiles is landfilled or burned

# Fast Fashion

- Definition: *“An approach to the design, creation and marketing of clothing fashions that emphasizes making fashion trends quickly and cheaply available to customers”*
- 2000-2014 consumption doubled
- Planned obsolescence: each garment kept half as long
- Negatively impacts exportation
- Destined for disposal



Emma Watson, Met Gala, 2016

Example of Recycled Content Fabric & Smart Design



# Textiles: Imports

- US is the largest importer
  - 98% imported
  - \$102 billion online sales
  - \$2k per person
  - 40%, or 1 billion items from China



# Impacts: Social

- Human cost:
  - Textile workers 'forced to work long hours in appalling conditions.'
  - Wages are far below a 'living wage'
- Dangerous working conditions:
  - Unsafe processes
  - Hazardous substances
  - Long working hours



- Rana Plaza: April 24, 2013
  - Over 1,134 workers died
  - 2,500 injured people
  - Deadliest garment-factory disaster in history

# CalRecycle Definition

Textiles are items made of thread, yarn, fabric, or cloth. Examples include clothes, fabric trimmings, draperies, and all natural and synthetic cloth fibers. This type does not include cloth-covered furniture, mattresses, leather shoes, leather bags, or leather belts.

# Textiles in the California waste stream

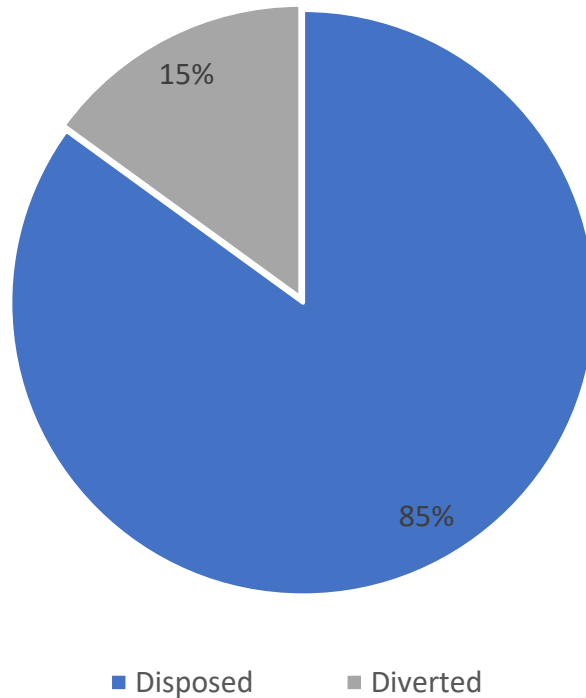
- 6<sup>th</sup> most prevalent material in California waste stream (4%)
- 1,234,711 tons disposed in 2014
- 5.5% of franchised residential disposed waste (5<sup>th</sup>)
- 7.6% in multi-family residential disposed waste (3<sup>rd</sup>)

2014 Waste Characterization Study



# U.S. Textiles:

Discarded Total:  
13+ Million Tons



- 95% of disposed were reusable or recyclable
- Once commingled = garbage
- 82 lbs/person



# Current Donation System

- Charity sells 10-15%
- Brokers buy 80%:
  - 30% Wiping cloths
  - 20% Converted into fibers:
    - Carpet padding
    - Insulation for autos and homes
    - Pillow/cushion stuffing
  - 45% overseas
  - 5% landfilled





# Thrift Stores Cannot Sell It All



# Trends:

- Apparel Retailer Take Back & Warranties
- Extended Producer Responsibility
- Zero Waste garments
- Materials Innovation
- Industry Collaboration



Patagonia' Worn Wear' Swap  
Black Friday 11-28-14 All Day

No longer wearing that jacket? Take a break from the consumer madness this Black Friday and drop by the Patagonia Worn Wear Swap. If you don't find something you like, your friends from the sharing app yerdle will be on hand to exchange your used Patagonia clothing for yerdle credits.

Free food, refreshments and music.  
Patagonia Denver  
1431 15th St. (303) 444-5520  
info: @patagoniadenver fb: PatagoniaDenver  
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**BREAK UP WITH  
YOUR BAG** ♻️

GET 20% OFF A NEW BAG  
& YOUR BAG WILL GET A NEW HOME





# Solutions:

*“The clothing we choose to wear everyday has an enormous impact on the planet and its people. Our clothing can either continue to be a major part of the problem, or it can be an enormous part of getting our planet on track. The choice is ultimately ours. We can vote at the ballot box for strong climate measures and vote at the cash register for clean clothes.”*



Maxine Bedat, Founder and Director,  
The New Standard Institute,  
Former CEO Zady



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