

TITLE: **Sustainable Fashion: The threads of transparency, environment & health, and business strategy.**

HOSTS: Howard Chong, Hotel and Tasha Lewis, Fiber Science & Apparel Design.

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Fashion is often overlooked in terms of its sustainability and environmental impact. Big inroads are being made and Cornell is strategically positioned to make an impact.

Fashion is an expression of creativity and culture, in both high fashion and utilitarian creations. As such, it is an important untapped frontier for sustainability research (when compared to food and oil/gas exploration). Major retailers have joined the Sustainable Apparel Coalition and are working to create multi-stakeholder standards for apparel. A number of industry health scandals (Greenpeace) are also driving increased transparency and the ZDHC (Zero Discharge of Hazardous Chemicals) group of global retail brands was formed in 2011 with a commitment to eliminate chemical toxins from their supply chains by 2020. Industry is trending toward meaningful action. How can Cornell help?

The global apparel supply chain is highly fragmented with producers of textiles and apparel often located in various distant and often underdeveloped geographic regions. This structure makes it difficult to maintain transparency throughout the chain. Textiles and apparel are also a large proportion of trade; globally the value of trade is larger than Iron and Steel combined (source: WTO), and it represents India's second largest employment industry and about 11% of India's exports. For many developing nations, apparel production is the only opportunity to advance industrialization and economic development.

The lack of standardized environmental regulations also allows for the damaging impacts of textile and apparel production to go unchecked in “pollution havens” -- nations with less restrictive or non-existent legislation. Consumer preference for natural fabrics drives demand for one of the most agriculturally intensive and pesticide-laden crops – conventionally grown cotton. Its cultivation strains water resources and pesticide use can impact worker health. The emergence of organic cotton as an alternative crop has yet to yield quantities sufficient to meet global demand.

The growth of fast fashion also impacts sustainability. Fast fashion has been an economic success for global apparel brands. The shortened production cycle delivers the latest fashions in season to cost conscious consumers. However, this speed-to-market model has consequences for both pre-consumer and post-consumer textile waste. Fabric waste from the manufacturing process is usually too small to be used for new garments and is discarded. Out-of-season styles are considered “disposable” and pile up in donation bins, thrift stores, and developing nations -- but a larger portion becomes landfill waste. According to the U.S. EPA, only 15% of textile waste is recycled.

Sustainability, as business strategy, is connected to cost-cutting, innovation, and can deliver value to the end consumer. One dimension is shifts in labor. A shift to more domestic manufacturing (on-shoring) is becoming important to US apparel firms looking to offset rising labor costs abroad and also reduce lead times. About 95% of the clothing in the United States is imported and the increase in imports over the last 30 years has come at the expense of domestic manufacturing jobs. On-shoring could provide more domestic jobs and also reduce the carbon footprint resulting from shipping and distributing imports. This is part of a larger consumer-based trend of a “slow fashion” movement (mirroring the principles of “slow food”) where consumers consider the origin of their clothing as well as the ecological, social, and economic implications of its production.

Cornell is well situated to explore the multi-faceted impact of sustainability in fashion, integrating perspectives from all of the following: biological and ecosystem sciences, applied chemistry, international economic development, labor relations, business and marketing, and fiber science and design.

NOTES:

- In the US, apparel is 3.4% of annual expenditure as compared to food at 12.8% of annual expenditure (SOURCE: CES, 2012). Most textiles are not US made which creates an "out of sight, out of mind" dynamic.
- Worldwide textiles and clothing exports were 708 Billion vs Food 1375 Billion.