Gaia Sourcing

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FASHION'S OPPORTUNITY TO FIGHT CLIMATE CHANGE

GAIA NEWSLETTER

What's in this newsletter?

LACK OF TRANSPARENCY IN FASHION

In a report published by the World Meteorological Organization (WMO), there is a 50% chance that the average global temperature will rise 1.5 °C above pre-industrial levels in five years, and this probability is unfortunately increasing. The Annual Global Climate Update reveals that there is a 93% probability that at least one year between 2022 and 2026 will be the warmest year.

Greenhouse gas emitted because of sectoral activities triggers temperature increases. However, our glaciers will continue to melt, our oceans will continue to become warmer and more acidic, sea levels will rise, and air temperatures will continue to rise in ways we cannot prevent.

While growing concerns about sustainability are forcing brands to speak out more about their policies and goals and take specific steps to address environmental and social impact, according to this year's Fashion Transparency Index, what fashion does in sustainability initiatives remains largely a black box.

In the Fashion Transparency Index report, it is stated that even the brands with the highest percentage of points do not disclose important data points such as greenhouse gas emissions, production volumes, water pollution and working conditions, and brands are insufficient to focus on long-term goals without concrete data. Pressure is mounting on the industry as time shortens to meet climate targets and regulators step up scrutiny of the industry.

Brands have begun to show that they can support the sustainability claims they put forward in their marketing. Comprehensive supplier list disclosures and evidence of due diligence and remediation efforts to address environmental and human rights issues in supply chains are key points that will elevate brands in this regard.

“ENTERING CLEAN TECH”

With increasing pressure to realize commitments to reduce environmental impacts, the number of brands investing in sustainability-focused start-ups has started to increase. For example, Inditex has entered 'Clean Technology' by supporting textile-to-textile recycling company Circ. Likewise, textile manufacturer Milliken & Company is one of the investors of Circ.

Investments in Circ technology are a bet against a technical challenge facing the textile industry in recycling. This technology focuses on recycling cotton and polyester blended fabrics, the blends can be separated and returned to the raw materials from which they were made. The company currently has a daily recycling capacity of approximately 4-5 tons.

“ALTERNATIVE TECHNOLOGIES OF DYEING”

Increasing pressure from environmental advocates has also pushed brands to find new ways of dyeing. This is starting to change, thanks to the rise of innovative solutions and a growing awareness that most of the industry's overall impact is in this part of the supply chain; The production, dyeing and processing of textiles accounts for 52 percent of total supply chain carbon emissions.

The biggest problem of dyeing processes is the chemical pollution it leaves behind. Although natural dyes are obtained by many methods, polluting processes are still required for their adhesion to the fabric. Several biotechnology initiatives have found ways to reconstruct nature as a workaround to some of these problems.

UK-based Colorfix uses DNA sequencing to replicate colors in nature with biotech dyeing technologies. With this technology, bacteria are genetically modified to grow a dye in selected colors, and this method requires less water use and emissions than conventional dyes. Although the company currently has only 6 colors on the market, it cooperates with many brands, including Pangaia and H&M Group. Colorfix is working to launch another 24 colors, but for now one of the biggest challenges is creating the black color.

Another solution method for dyeing is low waste dyeing. Fashion For Good supports a consortium of eight companies developing lower-impact, mostly waterless dyestuffs, and processes. Technologies range from foam-based paint to a technique that uses high-pressure containers of carbon dioxide as the solvent instead of water for the paint. Among these innovative methods is digital spraying technology. As in the operation of an inkjet printer, the right amount of dyestuff is applied to the fabric of the desired color.

Sweden-based company Imogo has a pilot machine operating in a dyehouse in Sweden and is collaborating with Spinnova, a cellulosic fiber manufacturer.

The first fabrics dyed with Imogo technology will hit the market later this year. It is said to expand further next year, with one of the machines going into operation at a knitwear manufacturer in Bangladesh.
With Imogo machines, which are compatible with conventional dyestuffs, the fabric can be colored up to 50 meters per minute. In addition, the machine is self-cleaning and can switch between shades in 10-25 minutes.

Working for Fashion for Good's competitive innovation program, DyeRecycle also wants the colors of old clothes to be recycled.
Although still in the prototype stage, DyeRecycle's process could completely reduce the need to develop new paint solutions.