TEXTILE EXCHANGE Sustainable Fashion

NGIS was the technical implementation partner and Google technology specialist repsonsible for the design, development, release, support and ongoing development of the Materials Impact Explorer.

The challenge

Most materials used in the fashion, textiles, and apparel industry are sourced from farms, forests, or fossil fuels. In fact, around 24% of the fashion industry's greenhouse gas impact occurs at the raw material stage of the supply chain.Many brands source their raw materials without having visibility to the specific environmental risks and opportunities associated with them.

The solution

In 2019, The Global Fibre Impact Explorer initiative was created to empower fashion brands to make sustainable sourcing decisions. In 2023, the Materials Impact Explorer, an evolution of the Global Fibre Impact Explorer, was publicly launched at the Textile Exchange Conference by Textile Exchange and its partners Google, WWF and NGIS. Built on Google Earth Engine and utilising GMaps and GCP.

The result

The tool, with its unique focus on textile fibres and raw materials and broad scope across environmental risk categories, holds immense potential to guide the fashion, apparel, and textile industry toward beneficial outcomes. Its country and material specific recommendations for reducing risk are designed to foster collaboration between brands and the growers, producers, and communities.

The tool is the product of a multi-year collaboration with Google, WWF and NGIS. It's the first open source, industry-specific sourcing tool that focuses on environmental risk at fiber country of origin, which closely aligns to the Taskforce on Nature-related Financial Disclosures (TNFD) and Science Based Targets Network.
Sam Pettifer, Climate and Nature Impact at Textile Exchange



About Textile Exchange

Textile Exchange, a global non-profit organisation, is at the forefront of driving beneficial outcomes in climate and nature within the fashion, apparel, and textile industry. Their mission involves convening stakeholders from across the industry to collectively pursue climate and nature goals across fibres and raw materials

Vertical/horizontal solution: Retail & Wholesale

Primary project location: United States



About NGIS Australia Pty Limited NGIS is a global leading Geospatial and Sustainability solution provider specializing in high impact initiatives leveraging Google technology.



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