SME CASE STUDY VIGNETTE

NO. 7

MATERRA™

https://www.materra.tech/

01 | Introduction

Materra is a fashion-tech company whose mission is to design scalable solutions for growing and sourcing future-proof cotton, that is, cotton that is climate-resilient, transparent and equitable. The company was founded in 2018 by Edward Brial, Edward Hill and John Bertolaso. After piloting the growing of hydroponic cotton in polytunnels in the UK, the company quickly expanded into India to be present in a region where substantial amounts of cotton for the global textile and fashion industry are grown. Materra raised funds both to launch industrial hydroponic pilots and to start a regenerative cotton programme in India.

The aim of the regenerative programme is 1) to engage Indian cotton farmers to encourage them to pivot from conventional cotton growing, which is polluting and resource intensive, to using regenerative methods, and 2) linking these farmers to fashion brands, which are – motivated by legislative and consumer pressures – increasingly interested in credibly sourcing materials that are grown in a sustainable manner. Materra connects farmers with fashion brands via the Co:Farm app that the company has developed, which enables full transparency and provides a range of data related to social, environmental and economic impact (more details below). Materra aims to create partnerships with fashion brands, which – using Materra's data services – can ensure themselves of the provenance of the cotton they source. Such approach overcomes the limitations of other cotton programmes such as the Better Cotton Initiative, which has no fully traceable chain of custody between brands and cotton farms.

Materra has grown to date (2024) to over 50 staff across their offices in London and Ahmedabad, and the company supports over 5000 farmers in central and western India.

Photo credits: https://www.materra.tech/

02 | Good practice and environmental reporting

Materra's regenerative cotton programme is based on three principles: raising farmers' livelihoods, restoring biodiversity and reducing resource inputs (chemical, water, carbon). One key aspect of the programme is to shift farmers to using older traditional (non-GMO) cotton seed varieties that are more climate- and pest-resilient.

Materra supports the farmers through live contact with Materra's field executives and through training. Farmers also receive support through the Co:Farm app, which has a knowledge portal (for example, on green manuring) and through which they can request advice (for example, they can take a picture of an insect that is

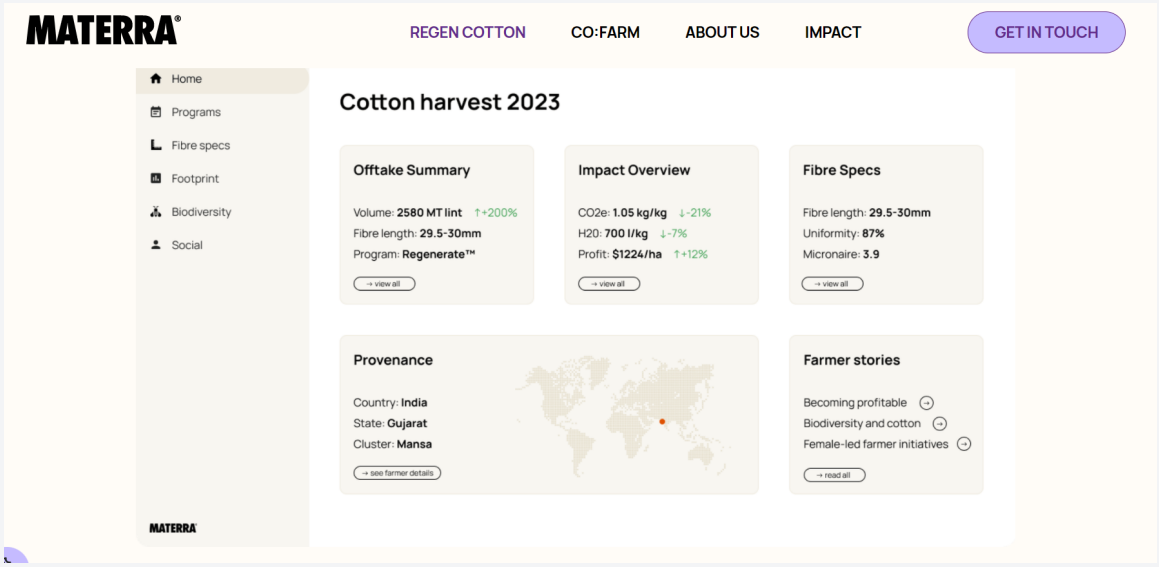
unknown to them and ask whether this is a harmful or beneficial insect; or they can use an audio function in the app to ask for advice). The Co:Farm app also acts as a diary, where farmers can track their expenses and activities.

Materra emphasises that it is important to provide bespoke support to the farmers, as soil, crop and climate varies from location to location. Some farmers might find it easy to shift to chemical pesticide-free farming immediately, while others may have more of a challenge to find bio-based alternatives to combating certain pests.

On the other side of the coin, the Co:Farm app enables "radical transparency" for the brands participating in Materra's programme – as brands will be provided with information on a range of data points including demographics, carbon, water, soil and biodiversity. These meet the requirements for GHG and water assessments using Cool Farm Tool, as well as RegenAgri and ROC standards. Materra uses soil testing for below ground biodiversity (for example, presence and diversity of microbes, fungi, micro riser). It also develops above ground biodiversity baselines (for example, in relation to pollinators, vascular plants, small and large mammals, birds) and asks farmers to help with that (for example by counting and describing bird species they observe on their land). The aim of increasing biodiversity in the cotton fields enables the (re)building of a functioning ecosystem that helps the farmer gain a decent yield from the field without having to employ chemical fertilisers and pesticides, as beneficial insects and a more varied crop cover can provide these inputs too (ecosystem services perspective).

Materra's approach focuses on outcomes and practices and therefore also emphasises the importance of narrative in their Co:Farm data. This narrative data sets out what farmers do to improve their land and what outcomes they seek to achieve in the near and mid/longterm future, which then enables brands to build their own narrative too.

A challenge for Materra is to find cost-effective Measurement, Reporting and Verification technologies that can be used in Southern markets such as India as currently most available technology - satellite systems, audio-based recording systems, soil kits etc - are designed for Northern markets with high price points and/or high initial costs.



Source: https://www.materra.tech/co-farm

03 | External Financing

Materra started out with grant funding from EIT Climate-KIC – an EU funding body that supports early stage climate start-ups, which helped with renting offices, prototyping, and getting ready to pitch for pre-seed investment. (This scheme is currently no longer available to UK start-ups due to Brexit. In the UK, the grant funding landscape for start-ups such as Materra is challenging, as UKRI's farming innovation pathway is not available for innovations taking place outside the UK.)

Materra was successful in getting some small impact investments, but the majority of the company's funding comes from the fashion industry itself: family offices or early stage investment arms of large fashion groups or fashion sourcing companies. In 2021, Materra launched a partnership with Kering, PVH, Arvind and Fashion for Good that funded the development of a hydroponics pilot in India. In 2022, Materra raised $4.5 million seed funding, co-led by H&M Group Ventures and Invest FWD (BESTSELLER Group), which enabled them to develop its regenerative cotton programme. The investment from fashion brands presents a long-term commitment (with an expected 10-20 year turnaround time) as fashion brands are in the first instance interested in investing in the development of solutions that address the environmental (and social) issues that 'business as usual' fashion has caused over the past few decades.


Photo credits: https://www.materra.tech/

Materra would like to also attract more general VC impact investment but this remains challenging, as agriculture and fashion are currently not well understood as fields of investment. An additional challenge is that much farming R&D and innovation funds are focused on food crops and less on fibre production for textiles and fashion – and there is a need for a shift in focus to support the important work of start-ups working in sustainable fibre-growing agriculture.

04 | Future Plans

Aside from seeking to support more farmers in India to enable a shift to future-proof cotton, Materra seeks to develop more partnerships with fashion brands that will use their services. In 2024, Materra announced a brand partnership with Mango Fashion Group, which will use Materra's regenerative cotton in their products. Sustainable Menswear brand LESTRANGE has also begun to stock T-Shirts made from Materra's cotton.

In order to develop standards and practices, Materra has also teamed up with Textile Exchange, an NPO that seeks to support "materials sourcing that respects our planet, its ecosystems, and its communities", to trial their Regenerative Agriculture Outcomes Framework.

ABOUT

Funded by the Natural Environment Research Council, our case study series sheds light on early-stage SMEs journeys in obtaining external financing, SMEs navigating challenges in accessing finance for nature-positive innovation, aligning with environmentally conscious investors through shared metrics, and the evolution of SME investors in becoming 'nature-positive'. For further details, please see www.cusp.ac.uk/sme-finbio.

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