

EXECUTIVE SUMMARY EXCERPT

Completed study to be published November 30, 2018



PUERTO RICO COTTON STUDY

EXPLORING A SMALLHOLDER-BASED
ORGANIC COTTON SUPPLY CHAIN

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PUERTO RICO COTTON STUDY **Exploring a Smallholder-Based Organic Cotton Supply Chain**

This feasibility study seeks to explore the potential scenarios for the reintroduction of smallholder-grown, sustainable cotton as a productive agricultural crop in Puerto Rico. It provides a brief history of cotton in Puerto Rico, a short overview of current interest in cotton and natural fibers on the island, and an outline of several scenarios that might be considered when developing an integrated, smallholder-driven organic cotton value chain.

The genesis for the study involves a connection between Puerto Rico and Haiti. This may seem like an odd pairing until you realize they have hurricanes and cotton in common. Both countries have suffered the consequences of being in the Caribbean hurricane belt. Both countries share a common history of cotton production that has been halted for generations. Both are trying to rebuild their agricultural sectors to reduce dependence on imports.

The Puerto Rico connection with Haiti was made at the Textile Exchange Sustainability Conference in Washington, DC in October, 2017. A representative of Visit Rico spoke about the devastation to Puerto Rican smallholders wrought by Hurricane Maria just weeks before. Representatives of the Smallholder Farmers Alliance (SFA) spoke at the same conference about their experience of working with global outdoor lifestyle brand Timberland to reintroduce cotton to Haiti as a smallholder-grown crop following a 30-year absence. The result of that serendipitous meeting is this study, which was led jointly by the SFA and Visit Rico, with support from Textile Exchange and members of Armonía en la Montaña, an educational non-profit organization in Puerto Rico and the Mercado Agrícola Natural Viejo San Juan.

History of cotton in Puerto Rico

The use of cotton in Puerto Rico dates back to the Taínos, the largest group of indigenous peoples to settle in the Caribbean. The Taínos used cotton for ceremonial objects such as elaborately woven and decorated belts as well as every-day items such as hammocks. One of these highly-adorned belts was among the items exchanged with Columbus when he first visited Puerto Rico in 1492.

Although the colonizing Spaniards were more interested in crops like sugarcane, tobacco and coffee, they eventually came to see the usefulness of cotton as a natural fiber. Over time production grew to approximately 111,875 pounds of cotton in 1783 and up to 1.4 million pounds a year in the early 1930s. This followed the discovery of Sea Island Cotton, a high-quality fiber with great potential for export. While most of Puerto Rico's cotton was produced for export to the United States, many local households also grew and used cotton, often ginning and spinning it themselves and turning it into fabrics for personal use.

Cotton production eventually collapsed following a major hurricane in 1932 and the failure of the cotton sector to deal with plagues and pests like the pink bollworm and the cotton boll weevil.

Additionally, from the late 1940s onwards the Puerto Rican government shifted its economic policy away from developing its agricultural sector towards the creation of a manufacturing sector. The result was that Puerto Rico is now largely dependent on external inputs to satisfy its food and raw (agricultural) material needs.

In recent years, driven by significant subsidies and economic incentives, large bio-tech firms like Monsanto and Bayer have set up research facilities in Puerto Rico to develop transgenic GMO cotton seed varieties. Local activists have been ready to point out the many problems that come with the large-scale production of such GMO crops, one of the main concerns being the potential contamination of non-GMO and organic crops with those that are genetically modified.

Current interest in cotton and natural fibers in Puerto Rico

In line with an overall renewed interest in reducing Puerto Rico's reliance on expensive food imports and spurring growth of the island's agricultural sector—something that was strengthened following the devastation of the major hurricanes in 2017—there has been a sustained interest in growing and processing cotton and other natural fibers. This interest has been expressed by various groups in Puerto Rico, ranging from local smallholder farmers to non-profit organizations and potential private market players interested in buying cotton products that are 100% made in Puerto Rico. The study outlines several of these potential stakeholders and their potential role in a cotton supply chain.

Developing an integrated, smallholder-driven organic cotton value chain in Puerto Rico

This study focuses on a possible cotton production model that would positively impact smallholder and family-based cotton growers and processors, while using techniques that respect the environment. The main model discussed is inspired by an integrated supply chain based on fair-trade and 'solidarity economy' values that has been developed in Brazil over the past 10 years. As part of this "Justa Trama" model, Brazilian cooperatives produce fair-trade clothing, footwear and accessories using locally grown organic (or 'agro-ecological') cotton. The result has been a success story: an integrated organic cotton supply chain that runs from smallholder cultivation to the final consumer, through processing, spinning, manufacturing and marketing.

Although Puerto Rico constitutes a very different situation than Brazil, several key lessons can be learned and adapted from the Justa Trama model. These lessons are reflected in a set of recommendations:

Recommendation 1: Understand What the Market Wants

For any project with commercial aspirations it is absolutely key to be demand-driven and to have a good understanding of what the market wants. The market for organic cotton is becoming more challenging, with consumers looking for sustainable, ethically produced products that are traceable and come with a great story. The final end product that will be produced will affect each step of the cotton value chain, starting with the types of cotton that should be grown and the steps involved in its processing.

Recommendation 2: Establish One Central Core Entity to Drive the Puerto Rico Cotton Project

In order for a Puerto Rico Cotton Project to succeed it is important to have a core group of people involved that take ownership of the project and that can push it forward. Especially in the scenario where an integrated cotton value chain is developed, it is essential to have people

involved who have an overarching vision and understanding of the chain from beginning to end. Having this understanding will enable them to perceive possible synergies that can improve the efficiency and viability of the chain. It will also help to identify and motivate potentially interested stakeholders to become part of the chain.

Recommendation 3: Start Simple and Build on Small Successes

One of the reasons the Justa Trama Network was able to grow as it did is because several of its future stakeholders collaborated to demonstrate a proof of concept by producing one simple product, a tote bag. Successfully creating such a product will help build trust between the different stakeholders in the supply chain and will help in convincing potential supporters of the viability of the project.

Recommendation 4: Build Strategic Alliances

Models like those deployed by Justa Trama in Brazil and the Smallholder Farmers Alliance (SFA) in Haiti serve as a reminder of the importance of building strategic alliances. Overall, building and maintaining a network of such alliances in areas where support might be needed (financing, research, market access, government regulations, etc.) will contribute significantly to the project's potential for success.

Conclusion

In short, there is an interest in and demand for Puerto Rican-grown cotton. This interest comes both from demand on the island (artisanal crafts makers, hammock producers, etc.) and from the US mainland (Puerto Rican designers, fashion brands, etc. based throughout the U.S.). Combined with the strong interest in strengthening the local agricultural sector in Puerto Rico following the 2017 hurricanes—with both local and federal governments expressing interest in providing financial support to establish a viable, sustainable agricultural sector on the island—it seems that the moment is opportune to develop a project to kick start a sustainable cotton sector on the island.

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