

The Rebirth of Natural Fibers? Analysis of Market Potential for Fique (*Furcraea andina*) Production in Santander, Colombia

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Natural fibers extracted from the leaves of the fique plant (*Furcraea andina*) are used in Colombia to manufacture coffee sacks and crafts. However, the economy associated with the cultivation of fique in the department of Santander is weak. Moreover, optimal production practices have greatly been abandoned by farmers because of poor market demand in the last two decades. However, new market demand for natural ecofriendly fibers to replace plastic opens up better opportunities for fique producers. The objective of this study was to provide a macro view of the current fique market in Colombia and its potential in global markets.

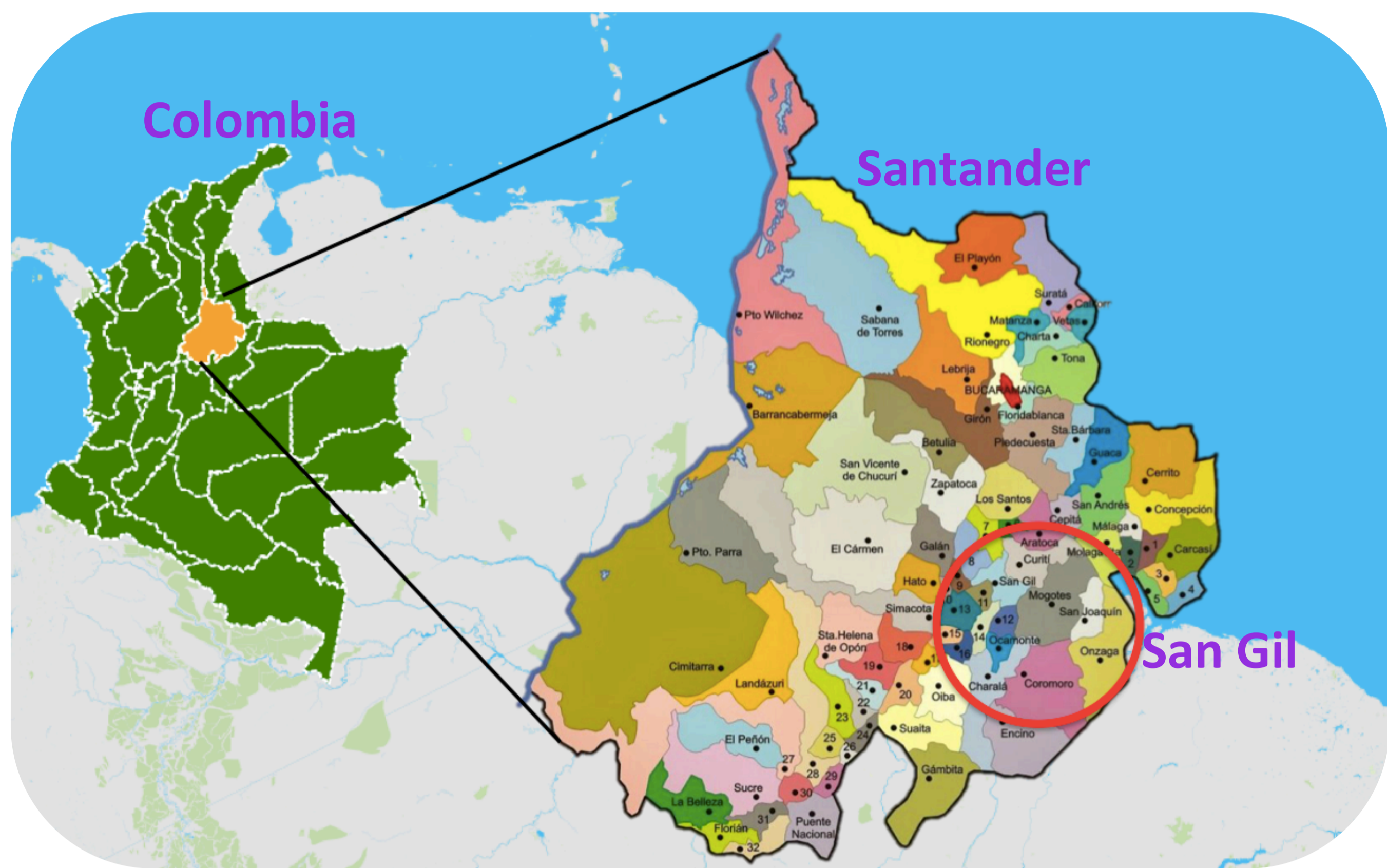


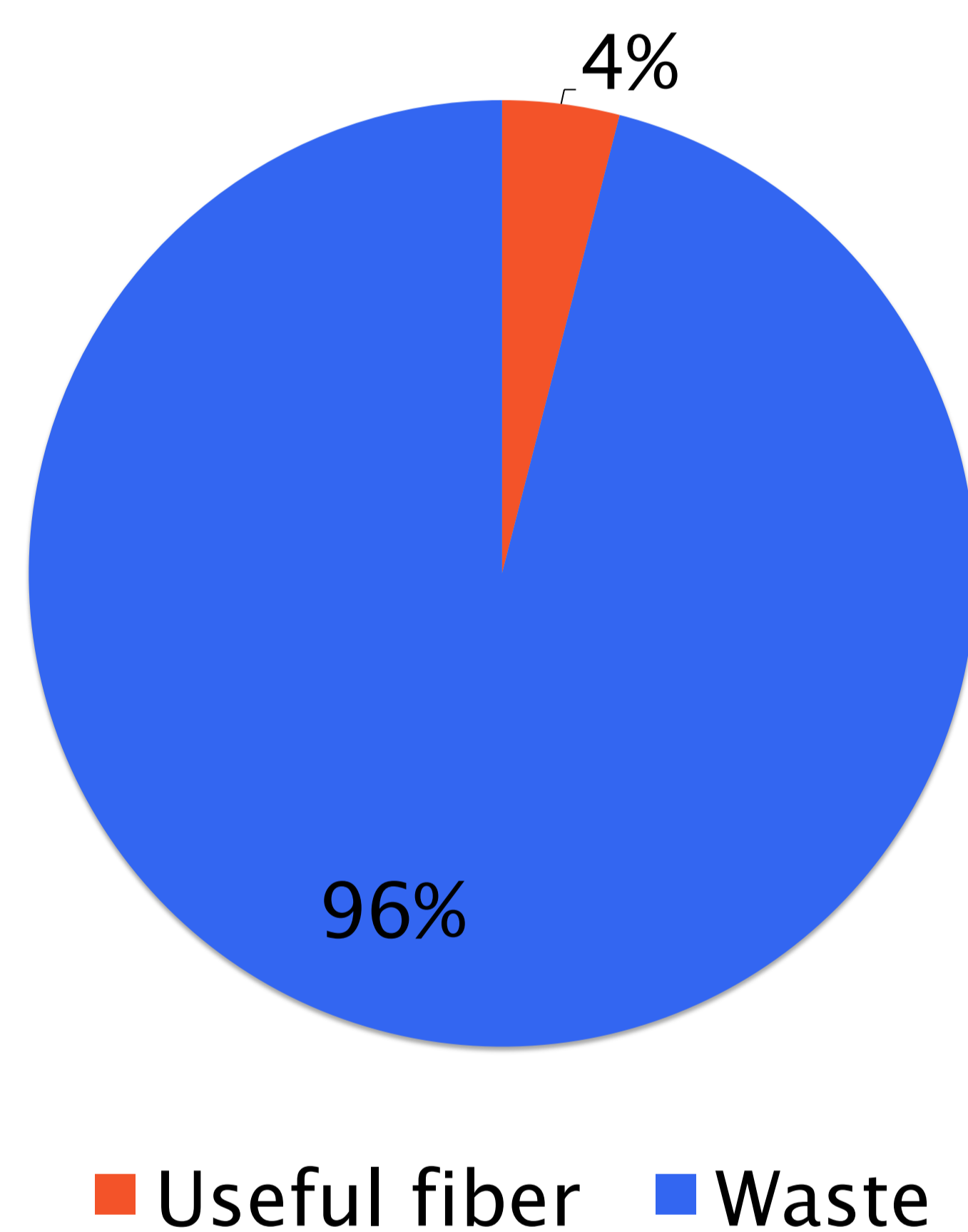
Figure 1: Map of Santander

Studied location

- Small villages close to San Gil in Santander, Colombia.
- Total of 25 families and 106 hectares.

The Problem

- Abandonment of production.
- Poverty.
- Aged population.
- High cost of labor force.
- Low sale prices.
- Lack of education.
- Neglected markets.
- Intermediary selling system.
- Unexplored new markets.
- Many substitute products.
- Lack of site policies.
- Misuse of raw materials.
- Environmental impact.
- Climate Change.



Results

Economy

- Salary is just 30% of minimum wage *per capita*.
- Subsistence economy.
- 24% of farmers are in worse economic situations over time.

Markets

Current Market

- Exploits only useful fiber
- Coffee sacks.
- Handcraft.
- Cords.

Potential Markets

- Use of waste.
- Available opportunities: soap production, growth of mushroom in fique substrate, sales of bio-mulch and fertilizer.
- Projected opportunities: pharmaceutical industry, paper production, upgrading of different materials, biofungicide.

Crop

- 76% of farmers have fique as primary crop.
- 59% of them have fique as a single crop.
- Farmers have a spontaneous permaculture system.
- 100% of farmers use waste as fertilizer.
- 72% of them do not use agrochemicals.

Improvements to implement

- Fiber standardization to compete globally.
- Certifications as Bio, FairTrade, Handmade.
- Traceability.
- Labels and Brands.
- Qualifications.
- Investment on new technology.
- Use of waste in sub-products.
- Marketing.
- Strengthen the production chain.

Conclusion

- Non-unified system and lack of future vision.
- Broken value chain.
- Strong entry barriers for potential markets.
- Economic situation has not improved in the long term.
- Calculation showed that income may increase at least 9% *per capita* if farmers could produce basics sub-products from the waste.
- It is necessary to evaluate replacing fique with more profitable crops.

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