



COFFEE CERTIFICATIONS AND INCLUSIVE DEVELOPMENT FOR MICRO MILL OWNERS: EVIDENCE FROM COSTA RICA'S TARRAZU REGION

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Los Santos Territory, Tarrazu Coffee

- 3 counties Dota, Tarrazú and León Cortés
- Area: 809 Km² and population: 38150
- Human Development Index: from 0.69 and 0.70
- High altitude coffee and 95% of the coffee bean is SHB (Strictly Hard Bean)
- Production units of 3 ha average (small scale farmers).
- 80% of the territory income comes from coffee production.
- 4 generations in coffee farming
- 3 main cooperatives and 4 transnational mills
- AAA, Café Practices, Fair Trade, Organic, Rain Forest, C₂O neutro



Objective

- The role certifications have played in enhancing environmental consciousness among coffee producers in Tarrazú.
- **Method:** 63 surveys- 30 conventional and 33 micro-mills
15 in depth interviews (1 female and 1 male)

Two different models

Conventional Farming

- Cooperative Model
- Quantity driven system
- NY Stock Exchange price \$160 per 46Kg green coffee.
- Plant, pick and deliver



Micro-Mill family enterprise

- Relational Coffee Model
 - Quality drive
 - Negotiate prices \$300
 - Processing and selling
- Family own enterprise
- Sustainable farming practices?



Results: Certification Membership

Conventional Farmers	30
Certified	5
Non Certified	25

- AAA Nestle, Café Practices and Rain Forest
 - Motivation: Someone offered it and fill the papers for them
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- *“They came here, filled up a lot of papers. They say that with this I will get a better payment. The only advantage I have seen is that I have reduced the farm inputs cost by 50%”*
 - *“ I have received training but most of this is for their convenience. They take our products to countries that pollute more than us, it is a double standard”.*

Micro-mills: Certification Membership

Micro-mills	33
Non Certified	11
Had a certification before	10
Had a certification and change to an alternative one	2
Never had one and adopted an alternative one	10



Learnings from micro-mill owners

- "I learned to manage my farm in a more environmental friendly manner"
- "It allows us to be consistent with quality"
- "Because of those programs I have more than 18 years of not applying herbicides to our farm"
- "I learned the importance of caring about water and the fair treatment you should have with your workers"

Learnings from micro-mill owners

- “We changed to a new program, Starbucks’ Café Practices, the same discourse that we were going to receive a differentiated price, and again the premium price never came. I remember Starbucks people here doing research and us investing in all the things the certification required. [...] My farm became like a forest, with very low productivity and none of the premium price that could compensate. [...] I was disappointed; **but the good thing we achieved was to put into our heads the idea of being environmentally conscious when working our land.**”




Micro-mill reasons for leaving conventional certifications

- " We would take our very ripe berries [standard for Rainforest Certification] and they would mix it with everyone else's coffee that had green berries, stones and bushes".
- "We had Café Practices but the premium price was not significant, it was like selling meat to McDonalds, **they would not preserve the quality**".
- "They [private mill] say the price is reflected in cheaper inputs we most buy from them, but I can find those inputs at the same price at the cooperative store, so I'm not gaining anything".

Micro-mill reasons for leaving conventional certifications

- “Those people **do not promote any values**, what they do is to come here, sit on my couch and drink coffee. They don’t supervise what I’m really doing on my farm”.
- “ **We became tired of it**, my neighbor is supposed to be certified too, but when the certification supervisors came to check the certified farms the cooperative would always take them to our farm that looked better than others. So the **others keep the certification without ever complying** with the standards”.



Wheat		
Sustainability rating  <i>Based on the carbon, nitrogen, and water footprint</i>		
CARBON 1% DV	NITROGEN 2% DV	WATER 8% DV
<i>Carbon footprint: the contribution to climate change. Nitrogen footprint: the contribution to nutrient pollution. Water footprint: the use of limited freshwater resources.</i>		

Nutrition Facts	
Serving Size 1/2 cup pasta (55g) Serving Per Container 1	
Amount Per Serving	
Calories 180	
	% Daily Values*
Total Fat 0.7g	1%
Saturated Fat 0.1g	1%
Trans Fat 0.4g	
Cholesterol 10mg	3%
Sodium 4mg	0%
Total Carbohydrate 40g	13%
Dietary Fiber 4.4g	18%
Sugars 0g	
Protein 7g	14%
*Percent Daily Values are based on a 2,000 calorie diet.	
Carbon footprint	1%
Nitrogen footprint	2%
Water footprint	8%
<i>The carbon footprint is the contribution to climate change, the nitrogen footprint is the contribution to nutrient pollution, and the water footprint is the use of limited freshwater resources.</i>	

New Certification Schemes

- NAMA CAFÉ
 - Nationally Appropriate Mitigation Actions (NAMAs)
 - First NAMA for coffee in the World
 - GIZ and BID
- Developing strategies to promote differentiated coffee
- Feasibility and project design studies for low-emission technologies.
- Access European Market by 2022 (low carbon, low toxicity, low water footprint)
- Certifies the farm and the mill

Ecological Blue Flag for Agriculture

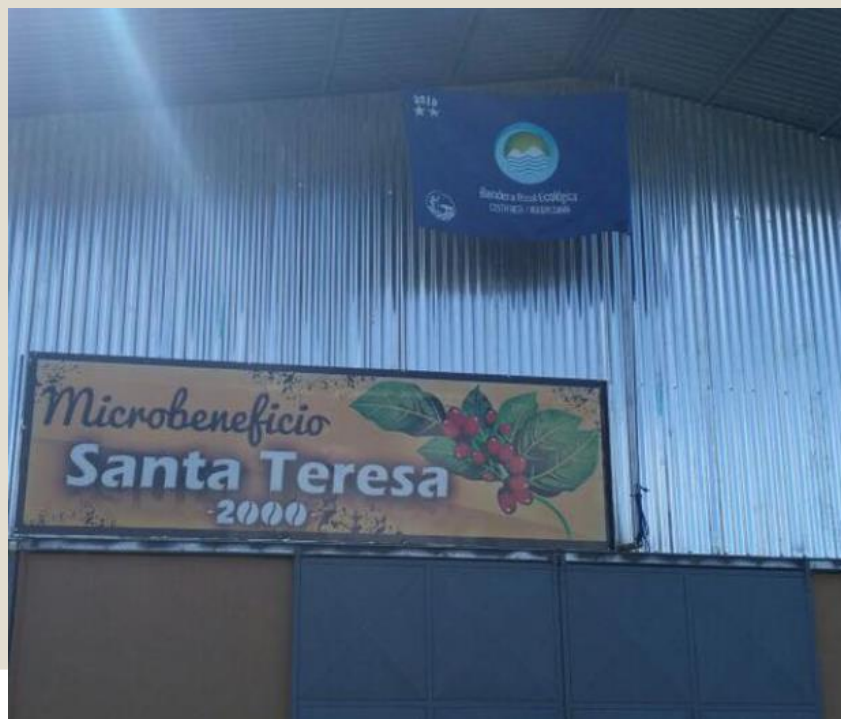
- Costa Rica Ministry of Agriculture
- Support and promote sustainable farming practices and natural resources management in farms
- Popular sign: taking action towards environment sustainability
- Free and voluntary
- Marketing for tourism
- You earn stars as you comply with better environmental practices

2 Stars: Comply with all sustainable farming practices

4 Stars: Organic Certified

5 Stars: Carbon neutral





Advantages over conventional certifications

	Ecological Blue Flag	NAMA CAFE
Are Free and volunteer	✓	✓
Have hands-on training	✓	✓
Greater chance to access to credits	✓	✓
Tool to promote tourism	✓	
Accountability and participation	✓	✓
Continues feedback	✓	✓
Sustainable enterprise image	✓	✓
Gain better price		✓
International Recognition		✓

Do you need to be certified to have sustainable farming practices?

- “ After having my micro-mill is when **I changed** to more sustainable farming practices”
- “Buyers **had tired** of traditional certifications models”
- “I had Rain Forest, but **I keep improving my farming practices** not because a buyer is going to pay me for that, **I know it helps me with the quality of my coffee**”
- “Buyers what care about is **quality**, and if we treat our farms like we don't care (not having shade tress and use high agrichemical inputs) our coffee quality goes down”





Do you need to be certified to have sustainable farming practices?

- “You will see coffee farms with a **very good yield**, but it is **unshaded coffee**. We know those **plants will weaken** very quickly. Our plants might **not give excessive yields, but they are healthier**”
- “ **My farm has regenerate** since I stop using red label agrichemicals and I cut weed by hand. I used to worry bout having the floor of the farm like a dessert, but now I know is very **important to have different weeds**. So in case nematodes in case they appear, would not go directly to the coffee roots”
- “To me a coffee **farm is a ‘cerco’** like my grandparents used to call it. It had bananas, casava, arracache, sweet potatoes”.

Conclusions

- Quality and close buyer Relations
- Higher tree diversity
- Implementation of water saving practices
- Higher use of biological and organic techniques
- Improved soil quality
- Reduce the dependancy on agrichemicals
- Improve food security
- Agency and knowledge of value chain stages

Hernandez-Aguilera et al. (2018) and Castro-Tanzi, Dietsch, Urena, Vindas, & Chandler (2012)

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Conclusions

- **Quality is a key attribute** to enhance environmental farming practices.
- Farmers under the **RCM model** have better income to afford the cost and time of environmental friendly practices
- Conventional certifications face the problems
 - **Low democratic participation** in organizations
 - The way certification premiums are invested by cooperatives.
- Certifications are a **good tool to re-educate** farmers in environmental farming practices
- Micro-mill households **prefer direct traceability relations** rather than certification standards.
- New certifications are **not followed for direct economic benefits.**
- Farmers appreciate the **participatory process and constant feedback** process