

The SAN Climate Module

Adaptation and Mitigation to Climate Change in Coffee Farms



- Renaud Cuchet, Managing Director, Efico Central America
- Nils Leporowski, Vice President, Anacafé
- Michelle Deugd, Technical Assistance Manager, Rainforest Alliance

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“The aim of the *SAN Climate Module* is to encourage farmers to implement climate change adaptation and mitigation. Climate friendly farmers implement policies, procedures and best management practices to reduce greenhouse gas emissions from farming and crop processing operations and promote farm’s resilience to climate change and its associated impacts”

Project Partners



Guatemalan National Coffee Association is a dynamic organization founded in 1960, representing and facilitating technical support to coffee producers and promoting Guatemalan Coffee around the world.



Belgian green coffee & cocoa trading company, founded in 1926. Efico provides services to its suppliers and clients in the coffee & cocoa industry by creating added value based on the highest standards: Quality & Food Safety, Traceability, and Sustainability



EFICO FOUNDATION

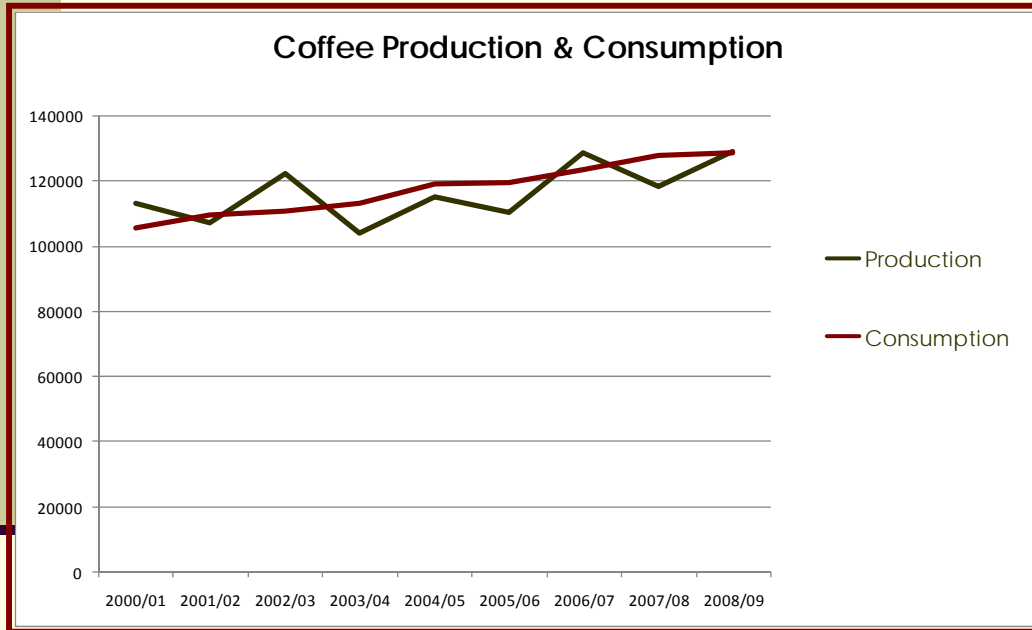
Efico Foundation supports sustainable multi-stakeholder projects in coffee and cocoa growing countries.



Rainforest Alliance is an international non profit conservation organization that works to conserve biodiversity and ensure sustainable livelihoods by transforming land use practices, business practices and consumer behavior.

Project background

International



► **Coffee Consumption :**
Average Increase of 2,2% a year, mainly by emerging economies

► **Coffee Production:**
Variation due to bi-annual coffee cycle, changing weather patterns,

- ✎ Demand & Supply in balance for the moment
- ✎ Will there be enough coffee for a growing population?

Project background

International



CABI Bioscience & United Nations Environment Program (UNEP)

“even a modest rise of 2° C in temperature over the next 50 years would lead to a contraction of the area available for growing Arabica coffee, because the lowest suitable altitude for its cultivation would **rise by about 6 meters a year.**”



IPCC - the Intergovernmental Panel on Climate Change

In 1990, the IPCC noted that the greatest single impact of climate change could be on human migration, with millions of people displaced by shoreline erosion, coastal flooding and agricultural disruption.



Project background

Sustainable Coffee Production in Guatemala

Results of the carbon stock study in Guatemala coffee farms

Average Carbon Stock: 81 tC/ha

Shade trees: 36 tC/ha

Coffe plants:
7 tC/ha

Litter: 5 tC/ha

Weeds: 5 tC/ha

Soil: 32 tC/ha

‘Sustain’ coffee production by

- ▶ Keeping Productivity **UP**
- ▶ Validating Environmental Services (**PES**)
- ▶ Shade grown coffee production is the major generator of carbon stock

Source: Guatemalan Coffees Green Book 2008

CEA-UVG. 2010. Study of carbon stock base line in coffee farms

2 pathways to stimulate coffee production and contribute positively to climate

1

Develop a module for the validation of the positive benefits to the climate with practices that maintain and enhance carbon storage or reduce Green House Gas emissions in coffee farms.

Define, revise, and add criteria to the Sustainable Agriculture Standard (SAN)

“Climate Friendly” approach

2

Develop guidance for producers who wish to increase carbon stocks on farms in order to create quantified, verified carbon credits.

Guidance on project design, methodologies, standards is prepared for farmers to earn incentives through sales of carbon credits.

“Carbon Credit” approach



What are we looking for?



Promote the reduction of Green House Gases in farms.



Promote carbon stock in soil and biomass.



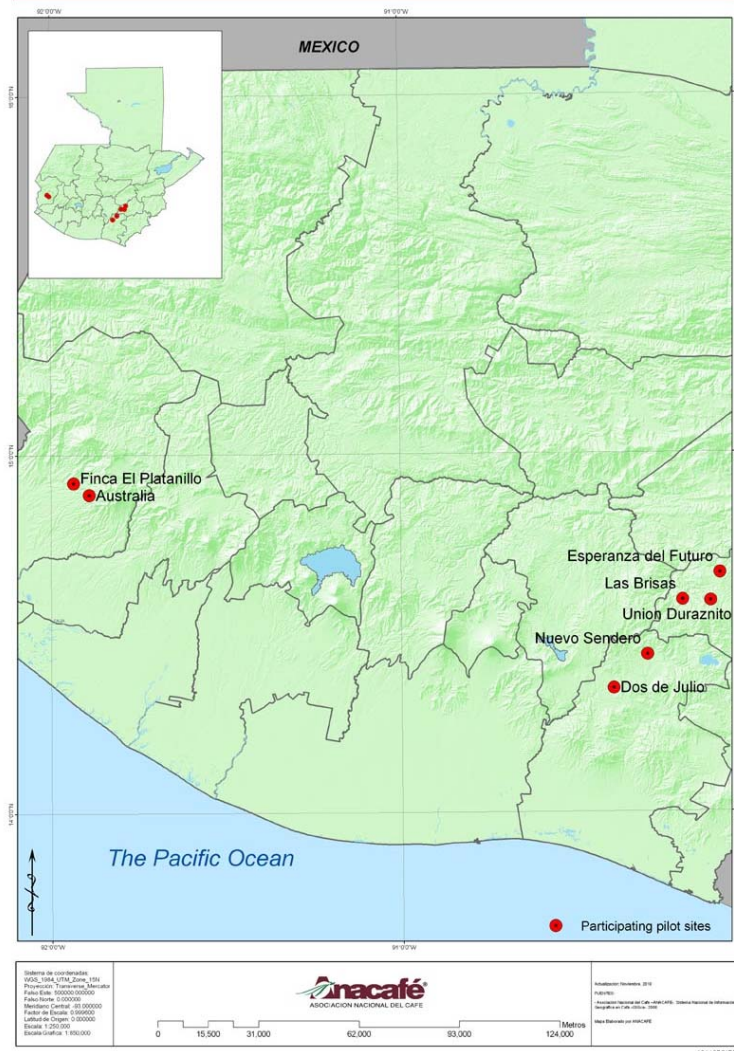
Stimulate adaptation and risk analysis strategies in a context of climate change and extreme weather events.



Create awareness about climate change and create added value for the producer.

The Climate Friendly Pilot Project in Guatemala

Promoting Climate Friendly Farming Project in Guatemala



Two Sites

Fraijanes Plateau
San Marcos

Beneficiaries:

Fraijanes Plateau: 5 cooperatives (2 RA Certified;
3 in process of certification)
San Marcos: 1 farm, RA Certified

Duration:

18 months (July 2009 – January 2011)



Climate Friendly Pilot Project

Site-specific carbon measurements in Guatemala



On-Field

- Productive Unit Registration
- Field Samples: soil, biomass
- Farmer Interviews
- Farming techniques registration

Lab

- Sample Carbon Analysis
- Biomass Equations

Technical Support

- **UVG:** Del Valle University of Guatemala, Center for Environmental Studies (field and lab work)
- **FIIT:** Fundación Interamericana de Investigación Tropical / Inter-american Foundation of Tropical Researches Guatemala (audit)



- Description of criteria leading to **adaptation or mitigation of climate change**
 - Reduction of GHG emissions in coffee cultivation & processing (fertilization emission, energy use, processing emissions,)
 - Maintenance or Increase of Carbon Stock in Agroforestry System
 - Adaptation to extreme climate events
- Integration of **new criteria in Internal Control System**
- Climate Module is verified by an independent auditor (For certification, farmers must comply with min 80% of all criteria)
- **Market** Climate Friendly Coffee, hereby promoting
 - Coffee in valuable agroforestry systems
 - Reduced GHG emissions in coffee supply chain
 - Farmers adaptation to climate risks



How does it work?

- A voluntary and additional module to the existing SAN standard.
- If the producer is already RA certified, he can choose to add the Climate Module to the annual audit
- For a first time certification, the producer can ask the SAN audit + Climate Module.
- The Climate Module contains 24 criteria related to adaptation and mitigation to climate change.
- Most criteria are closely related to the SAN standard, the producers are already familiar with the practices

How does it work?

Holistic scope:

- Inventory and calculation of Green House Gas emissions.
- Plans and activities to reduce emissions and improve the adaptation capability.
- Increased quantification of carbon in soil and biomass.
- Risk analysis and strategies to respond to extreme weather events.
- Designed as part of a leading certification and recognized program.

The SAN Climate Module is not....

- IT'S NOT a carbon footprint methodology
(The carbon footprint calculation will be a tool the farmers will use to learn and comply with the climate criteria).
- IT'S NOT a Life Cycle analysis of a certified agricultural product
(The scope is the farm, its production, the coffee process and the local transportation, not more)
- IT'S NOT a “carbon neutral” label
(The goal is adaptation and mitigation to climate change. Declarations of neutrality require detailed inventory of emissions and carbon stock)
- IT'S NOT a system to generate carbon credits
(The SAN Climate Module can be the first step for farmers to comply with specific carbon measurement standards).

Expected Benefits for Producers

- Positive increase in the farm carbon balance
- Improvement of capacity to adapt to Climate Change
- Access to sustainable markets and climate change concerned buyers
- A market recognition for climate friendly business practices
- To show eligibility for complementary programs, such as Payment for Environmental Services

Expected Benefits for Coffee Companies

- Enable fact-based claims on climate
- Products comply with the corporate social and environmental responsibility strategy
- Source coffee with low environmental impact and positive climate benefits
- Secure coffee production for the next generation through close collaboration with coffee growers implementing climate friendly practices
- Integrate site-specific farm emissions in your coffee chain carbon footprint
- Connect with consumers and your community about your responsible actions on climate

Activities in Development

- Test audits and finalization of public Consultation Workshops in Brazil, Costa Rica, Ghana, Guatemala, El Salvador, Indonesia, Kenya and Tanzania.
- Development of a Verification System for the SAN Climate Module.
- Presentation of the SAN Climate Module to the SAN Standards Committee
- Development of training material for auditors, technicians and producers
- Training activities for auditors, technicians and producers.
- Link to potential markets

Thank you

- Renaud Cuchet, Managing Director, Efico Central America
info@efico.com
- Nils Leporowski, V.P. Anacafé
info@anacafe.org
- Michelle Deugd, Technical Assistance Manager Rainforest Alliance
clima@sanstandards.org



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