



INTER-AMERICAN INSTITUTE FOR GLOBAL CHANGE RESEARCH

Small coffee producers and adaptive options for a changing climate: the risks and challenges of certification for ecosystem services (SGP-CRA 2060)

Guatemala, Mexico, Honduras and Costa Rica are among the fifteen largest coffee exporters in the world, and in the region hundreds of thousands of small farmers depend on some aspect of the coffee industry for their livelihood. As climate change impacts on the environment have become more apparent for farmers, it has become increasingly important for researchers to supplement socioeconomic research with in-depth biophysical studies. In our research, we aim for a better understanding of the role of certification seals, fair trade programs and organic production. These mechanisms may increase coffee growers' income, but much is uncertain as to how compliance with new rules and practices impacts growers' livelihoods, adaptive capacity, and the environment.

Goals

- Determine the balance of potential costs and benefits associated with implementing different types of certifications and the implications for the livelihoods and production of small farmers, whether organized or unorganized.
- Study the environmental changes that are achieved on the farms where coffee is grown under these standards of production.
- Understand the influence of these new standards on local microclimate regulation in view of possible climate change.
- Relate potential future climate changes with variation in the productivity of plantations.

First results

- We have developed several research protocols to be tested in the field.
- Four weather stations have been located in areas where coffee pests have become critical for coffee growers; these stations are currently collecting data.
- We conducted an analysis of the status of certification labels among the coffee producers of the region together with Rainforest Alliance to determine whether to work with certification labels or practices.
- We have selected a sample of certified and non-certified coffee producers who are willing to participate in the research.

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Project web page: <http://www.uvg.edu.gt/instituto/centros/ceal/cafe/>



Coffee producer learning how to operate a weather station in a coffee plantation at Honduras (Photo: Oscar Gonzalez 2012)



Coffee plant infested with coffee leaf rust in Guatemala (Photo: Diego Pons 2012)



High defoliation on coffee plantation due to pest infestation (Photo: Diego Pons 2012)

