Blum Initiative for Global and Regional Poverty Studies Service-Learning Fellowship School of Public Policy University of California, Riverside

## Cultivating cacao in an agroforestry system

Before starting my PhD studies here at UCR I worked for one year with Dr. Wilmer Tezara from Universidad Central de Venezuela (UCV) in a project which aim was to evaluate the ecophysiology of four cultivars of cacao in an agroforestry system in Venezuela, in order to improve Criollo cacao productivity and sustainability in cacao-producing towns. This project's final goal was to improve short, medium and long term monetary income of cacao farmers in cacao-producing regions in Venezuela by establishing agroforestry systems with cacao. To reach this goal some of the project's objectives were to train cacao farmers on the cultivation of the crop, help them make informed decisions on the cultivar that would better grow in their farms, and encourage them to establish agroforestry systems instead of monocultures.

Last year and this year I was working in the research part of this project as part of the Research and Innovation Fellowship for Agriculture granted by the University of California. This year with the support of BISLF we had the opportunity to organize a workshop in which we taught on genetic improvement and physiology of cacao, and the importance of establishing agroforestry systems with cacao. The workshop was taught at the National Institute of Agriculture Research (Instituto Nacional de Investigaciones Agrícolas, INIA) in Tapipa, Miranda State, in conjunction with two collaborators from UCV, Dr. Héctor Blanco and PhD student Olga Móvil. This was a very rewarding experience. The farmers were very interested in learning how to improve their cultivation practices. They asked many questions during both the lecture and practical training, and kindly requested a future workshop in which they could learn how to process the cacao seed to its final steps in the fabrication of chocolate. Cacao farmers usually sell the cacao seeds and don't see much profit from it. They were grateful that the BISLF could cover their transportation expenses, meals and office supplies used during the workshop.

We hope that farmers will choose a cacao cultivar appropriate for their farms and that they establish an agroforesty system. This system will run for up to 40-50 years, which can significantly increase their short, medium and long-term income. At the same time, these systems will help maintaining biological diversity (when comparing to monocultures), which is important to keep a healthy ecosystem.

I thank the BISLF for giving me the opportunity to go to Venezuela and coordinate and teach this workshop. After completing my activities in the country, I realized that poverty can be fought with education. Most of the cacao farmers that attended the workshop finished high school but could not pursue further education because they needed to continue the family tradition of farming cacao. Most of the knowledge they have come from their parents and grandparents, and most of it is useful and relevant for cultivating cacao; however, some of it is outdated and the only way the farmers can gain knowledge and improve their skills is by attending these types of workshops. Unfortunately, the current economic situation of the country doesn't allow professors from the university to organize and teach these workshops, but we were fortunate enough to receive funding from the Blum Initiative Service-Learning Fellowship.

Eleinis Ávila-Lovera Ph.D. Candidate Evolution, Ecology and Organismal Biology Program Department of Botany and Plant Sciences University of California, Riverside













