

University of Florida (UF)

Participants: Chris Vázquez, Andy Garcia, Jazmin Rubido

Project “Marabú to Charcoal” by InspireCuba

Dates: May 13-30, 2016

Project Location: Pinar del Rio, Cuba

INTRODUCTION: InspireCuba is a student-run, non-profit organization at UF whose mission is to provide humanitarian aid to the Cuban people. Project “Marabú to Charcoal” will help the organization achieve this mission by providing kilns, materials and technical assistance to a private cooperative—one of the few permitted to operate in Cuba—that converts marabú into charcoal. Some of the project’s benefits include dramatically increasing economic output production, strengthening the autonomy of the workers, and helping Cubans clear fields for domestic food production. Furthermore, the project will also have a positive environmental impact by reducing emissions of harmful volatiles by 75% compared to the traditional method, which would continue to be utilized had this alternative not been introduced. Finally, the project will seek to build trust between at least a small group of U.S. and Cuban citizens in the hope that this will serve as a model for the greater relationship of mutual trust between the two countries during the normalization of relations. The overarching aim and benefit of “Marabú to Charcoal” is to promote and advance the realization of peace for the Cuban people. In a time when the normalization of relations is a priority for both governments, the timing and context of “Marabú to Charcoal” as a participant in this process and as a Project for Peace could not be better.

BACKGROUND: Marabú, or “sickle bush,” is a dense, woody weed that grows as tall as trees and has invaded vast swaths of agricultural land in Cuba, overtaking crops and destroying them. Cane fields on the island have been overrun by marabú, causing the decline of the food production for domestic consumption. The weed has invaded 20,000 square miles thus far, which amounts to 18% of the national territory and contributes to the reason why Cuba has to import around 80% of its food. However, marabú is excellent for the production of charcoal when it is cut down and carbonized through slow burning. Specialists estimate that there are 900,000 tons of marabú available in Cuba, which could generate up to a billion dollars’ worth of charcoal exports. However, with outdated Soviet-era machinery and a lack of capital to invest in new tools, private cooperatives cannot harvest the marabú and convert it to charcoal efficiently enough to generate the necessary revenue to keep the enterprise open. That is where project “Marabú to Charcoal” comes in.

PROPOSAL:

Community Partners & Their Roles:

- **UF Institute of Food and Agricultural Sciences (UF IFAS):** IFAS has paired InspireCuba with the cooperative in Pinar del Rio and assisted in developing the project around the regulations of United States laws regarding relations with Cuba in the field of agriculture. Professor William Messina, Economist, Department of Food and Resource Economics, and Dr. Frederick Royce, Academic Manager, UF-University of Havana Cooperative Agreement, are experts in Cuban production models and have been very helpful throughout the formation of the project. The model implemented by the project will address the local desire to increase food production from marabú-covered land while simultaneously using the plant to help the cooperative’s enterprise flourish.

- **Agricultural University of Havana:** Trained professionals from the university will assist InspireCuba throughout kiln installation process, and researchers will participate in the week-long workshop directed by InspireCuba and UF IFAS for the cooperative and other invitees.
- **Asociación Cubana de Trabajadores de la Agricultura y Forestales (ACTAF):** This nongovernmental organization of particular agricultural and forestry workers will serve as the means for implementing the project on the ground in Pinar del Rio.

Location & Timeframe: The project began in October of 2015 and will take place in Pinar del Rio. The project consists of three phases. (1) October-January 2015: Establish contact with UF researchers and cooperative involved in charcoal production from marabú. (2) January-May: Compile list of petitions from *cooperativistas* (workers) and from NGO in Cuba; obtain all permits to implement project; coordinate the purchase and shipment of machinery. (3) May 13-30: Implement in Pinar del Rio, Cuba. It is important to note here that InspireCuba has already obtained all necessary permits and permissions, including visas, from the Cuban government to travel to and implement the project in Cuba. The visas will be issued when they are solicited by the members of InspireCuba, but the government has already promised to issue them in an official letter to the organization. Also important to clarify is that InspireCuba's contact with the workers of the private cooperative was established through its partner organization, the ACTAF, which surveyed the needs of the workers and conveyed them to InspireCuba.

Steps for Implementation:

1. **Kiln Importation:** Approximately 4-5 "Charcoal Ring Kiln 8" machines will be imported from the United Kingdom (cheapest source) to the private cooperative in Pinar del Rio as requested by the workers to InspireCuba.
2. **Machine Installation:** InspireCuba will work with UF IFAS professors, Cuban technicians, and researchers from the Agricultural University of Havana to install the kilns.
3. **Workshop:** InspireCuba will organize a workshop that will take place throughout the project's duration on the usage and capability of the kilns as well as on sustainable practices.
4. **Engagement:** InspireCuba will actively engage with the *cooperativistas* and learn their methods for harvesting marabú while sharing knowledge about sustainability and energy.

Assessment Mechanisms & Sustainability: Dr. Royce will quantify the impact of the machines for the production of charcoal from marabú. IFAS researchers estimate that production at the cooperative will be quadrupled with the introduction of the kilns. InspireCuba will continue to engage with this community via UF IFAS and plans to tackle other pressing issues after the end of this project, such as increasing food production through soil rehabilitation after the reduction of the marabú weed. UF IFAS and InspireCuba will maintain open channels of communication in order to provide the cooperative with a way to get replacement parts or other tools as needed and so long as the organization might be able to provide them.

MEASURING SUCCESS: InspireCuba will consider its goal achieved if output production doubles (though UF predicts it will be quadrupled) and if the cooperative honors the pledge to the NGO ACTAF to help clean out undesired marabú land in order to produce food. InspireCuba will assess by: (1) Reviewing systematic reports from the ACATF; (2) Projected future visits by members and by UF IFAS researchers in 2017; (3) and by participating in the final IFAS research report assessment.