JATROPA PEPINYÈ is a Haitian non-profit enterprise that works with small farmers in Northeast Haiti to achieve income security and regional economic growth, using *Jatropha curcas* in a sustainable agricultural system, which produces multiple crops and value-added products. Initiated in 2008, the project now includes 4 farmers associations, 80 hectares, and a pilot production facility for biodiesel, soap, and stove fuel. The project is sponsored by Partner for People and Place, a U.S. non-profit organization and Espérance et Vie, a Haitian non-governmental organization located in Terrier Rouge, Haiti.

**Issue:** Access to Land  
**Practices:** Inclusion of smallholders in bioenergy supply chain (IS)

In Northeast Haiti there is a considerable quantity of government-owned land, which is allocated to small farmers, but which is semi-arid (500–600 mm rain per year) and cannot support year-round food crops. For the past 40 years it has been used for free grazing and small plot seasonal gardening. At the request of farmer associations, who have access rights to this land and who comply with government requirements, Jatrofa Pepinyè is helping them shift from seasonal subsistence farming to a productive cropping system built around *Jatropha curcas*. It supports their aspirations to create a new agricultural economy, using both energy and food crops by providing (1) startup resources; (2) ongoing technical assistance and education; (3) coordination of a multifarmer effort, (4) post-harvest activities that create value-added products; and (5) business development.

**Issue:** Local Food Security  
**Practices:** Integrating Food and Energy Systems (IF); Training on good agricultural practices (TR)

Crop Diversification: The strategy for food security on this difficult land is to give small farmers income security from several crops. If and when one fails, there are others to fall back on that are running on different cycles and are tied to different markets. For example, if seasonal vegetables fail or local
markets are glutted at the time of harvest, there is the reliable production of Jatropha to fall back on. It delivers an energy product and its growth form and adaptation to aridity make it a very manageable companion crop. The notion here is expressed by a Haitian proverb, ‘the spider has eight legs and if it loses one it can keep on walking’. Jatropha Pepinyè’s strategy on marginal, semi-arid lands is to establish an intercropped agriculture that includes (a) woody-stemmed energy crop (*Jatropha curcas*); (b) seasonal food crops of vegetables, pulses, tubers, etc.; (c) grazing animals; (d) bees for honey production; and (e) specialty forestry for poles, etc. This complex of crops provides benefits as each helps the other. In Northeast Haiti where the soil is heavy clay, seasonal food crops benefit from the mechanical land preparation for Jatropha, which in turn benefits from the routine cultivation associated with the seasonal crops between its rows. Grazing animals grow fat while keeping down the grasses and forbs between rows of Jatropha, while also providing fertilizer. Other benefits include:

- Jatropha trees also reduce the impact of dry, hot winds on intercropped vegetables;
- Dense tree plantations for pole production serve as crop windbreaks from stiff Atlantic trade winds;
- Increased bee pollination increases yields;
- Capturing waste streams from Jatropha processing for biodiesel contributes nutrient cycling back to the field;
- Production of high value nitrogen fertilizer

A training centre has also been put in place to teach farmers about (a) the production of value-added products from Jatropha; (b) agricultural methods; and (c) business tools and resources for the farmer and entrepreneur. Jatropha Pepinyè is also running field trials of non-toxic Jatropha, the seedcake of which can be used for animal feed for increased output of high-protein food products.

**Issue:**  Community development  
**Practice:**  Training and education programmes (TE)

Esprit de Corp: The workers proudly wear Jatropha Pepinyè identification badges and shirts with the name of the organization. These give the farmers an esprit de corps that is uncommon among field workers in Haiti and give a sense of belonging to a community, which is creating something new and good.

In-field Training: Jatropha Pepinyè has implemented an in-field training system with team leaders that give hands-on instruction. The method transcends problems of literacy and was proven effective after the Haitian earthquake when Jatropha Pepinyè provided temporary employment to refugees with no prior farming experience.

**Issue:**  Income Generation and Inclusion of Smallholders; Community development;  
**Practices:**  Training and education programmes (TE); Contracts with local goods and service providers (CN)

Partnering with the Community: The effectiveness of the company relies on a longstanding relationship with the community where the company has been active since 2003. The staff come from the local community and all of the business is conducted in Creole, the language of the farmers. The actions are shaped by the notion of ‘partnership’, whereby Jatropha Pepinyè and the community co-discover what works best. It is not ‘top down’.
Community Expositions: Jatropha Pepinyè organizes “fairs” to inform local communities about the potential income generation that can be derived from a jatropha bioenergy project. Soap making has been emphasized and demonstrated, as well as production and utilization of biodiesel for generators and stoves.

Demonstration Farm: The headquarters is located in a highly visible location where Jatropha Pepinyè welcomes visitors to see firsthand all of the components of integrated Jatropha agriculture and the entire value chain. Visitors can watch biodiesel and soap being made, and because the staff come from the local community it is easy to ask questions. Direct engagement triggers motivation and creativity.

Co-discovery: It is part of Jatropha Pepinyè’s practice to implement different approaches in different areas in order to understand what might work best based on the local community knowledge and local conditions. The farmers contribute a deep understanding of local condition, while “outsiders” bring in challenges of innovation.

1. Community Relations: While the main job is agriculture, Jatropha Pepinyè is also part of the community and Jatropha Pepinyè takes the time to address other kinds of issues. For example, Jatropha Pepinyè has advised the farmers about institutions for financing a road project, and fixed a local water supply facility; and

2. Educational Outreach: Jatropha Pepinyè gives short certificate training sessions to local agricultural schools on Jatropha cultivation and value-added processing, and the demonstration farm is regularly visited by government officials, international aid agencies and non-governmental organizations.

Issue: Energy Security and Local Access to Energy

Practice: Development or Improvement of energy infrastructure (DE)

Homegrown Energy: The purpose is to produce energy for the Haitian market and to let smallholder Jatropha farmers capture some of the more than USD 250 million that Haiti spends every year to import diesel fuel. The goal is to create a situation where cooperatively-produced feedstock and biodiesel production are codependent.

Local Use and Demonstration: Jatropha Pepinyè demonstrates the use of bioenergy in running the operation – using biodiesel to power the tractor, generators, etc.