



NOTE FROM HONDURAS

Blending Finance, Technology, and Training to Encourage Responsible Growth

In Puerto Lempira, Honduras, GreenMicrofinance is partnering locally to introduce technology and foster entrepreneurship to help the indigenous community preserve its innate natural stewardship and traditional cultural heritage while climbing out of poverty.



Photo credit: GreenMicrofinance

Mosquitian Elder cracking palm kernels

“GreenMicrofinance can offer a sensitive development impulse that will empower the cultural identity of the Mosquitia people, not alienate them from it.”

*-Sebastian Kretschmer,
Director for Sustainable Agriculture*

While most Notes from the Field feature USAID-supported work, occasionally we post Notes reporting on work that does not receive USAID support but that represents interesting innovation, good practice, fodder for discussion, or all three. The work that follows does not receive USAID funding but we feel that our users will benefit from learning about it.

La Mosquitia, one of the last remaining tropical forest areas left in Central America, is the most impoverished region in Honduras. Local communities, including the indigenous Miskito (or Mosquitia) people, have struggled to keep alive their distinctive cultural heritage while dealing with the threats of environmental and economic uncertainty.

Within the state of La Mosquitia, the town of Puerto Lempira is a sprawling, unstructured rain-forested area powered by a large diesel generator plant for electrification, consuming 15,000 gallons of petrodiesel per year. The town is rapidly growing, with no real sustainable economic development or agricultural activity in the area. Given this challenging situation, several organizations have created novel programs that allow people and nature to live together profitably, a win-win for both the people and the planet.

Since 2002, GreenMicrofinance™, LLC (GMf), has worked with microfinance institutions (MFIs) to promote sustainable technologies and to assist in developing, launching, and scaling sustainable environmental programs. GMf is now exploring a partnership with MOPAWI (from Mosquitia Pawisa, meaning “development of the Mosquitia”) to generate equitable social development through social microenterprise. MOPAWI is an NGO that has been working to represent the indigenous Mosquitia community since 1985. The

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organization focuses on improving livelihoods by enabling locals to cope with social and economic changes and identifying alternative models of resource use.

The GMf-MOPAWI partnership centers on the processing of the American palm, the most economically important vegetation in the area. Palm oil is used for a variety of purposes, including hair oil and cooking, and the resulting waste product, after oil extraction is used to feed livestock. This partnership seeks to leverage GMf's triple bottom line approach of seeking financial, social, and environmental returns in order to:

- Increase local employment while decreasing out-migration;
- Lower the cost of production and with lower agricultural labor;
- Reduce waste and increase product yield; and,
- Decrease emissions and deforestation.

Estée Lauder, one of the world's leading cosmetics companies, has played a key role in financing the initial assessment and launch of a commodity diversification plan for the Mosquitia community. The company's socially responsible corporate mission has yielded initiatives to develop sustainable and ethical supply chains. In 2007, the company acquired Ojon Corporation¹, a Canadian beauty

¹ Ojon is the Mosquitia term for the American palm.

products company that purchases their palm oil directly from La Mosquitia's indigenous people.

In 2008, Estée Lauder and MOPAWI, with the assistance of The Rainforest Alliance, implemented a plan to maximize the processing potential of the American palm harvest. Working to train the Mosquitia people to improve productivity and sustainability of the plant, they assisted them to further develop the potential of their forests. Sebastian Kretschmer, GreenMicrofinance's Director for Sustainable Agriculture, has been instrumental in introducing technologies to support this effort. Using his experience as a social entrepreneur as well as an agricultural engineer, Kretschmer has improved the traditional method of palm oil extraction, resulting in both a reduction of firewood use and an increased yield of crude palm oil. The extra income from this primary resource

has provided a simple but significant avenue to improving palm oil farmers' standard of living. Additionally, Kretschmer has successfully invented a carbon-neutral electrification method, which has been introduced in a rainforest clinic and an indigenous community center at the MOPAWI campus. These environmentally friendly techniques provide the Mosquitia an enhanced income stream, and additionally serve as an economic diversification plan for the indigenous community.

GreenMicrofinance's vision is to extend this carbon-neutral biofuel use to the entire town of Puerto Lempira by developing a 20 hectare biodynamic oil farm on the more elevated savannah land outside of town. Synergistic livestock and vegetable operations would recycle nutrients from the farm's oil mill within the entire farm organism as opposed to producing the notoriously polluting nutrient runoffs common on conventional

Innovations in Palm Oil Production and Use

Traditionally, the Mosquitia community utilized only the kernel of the palm plant, discarding the surrounding fibrous pulp, which contains significant amount of crude palm oil. GreenMicrofinance's Sebastian Kretschmer introduced mechanical screw presses to the traditional "wet extraction method" of crude palm oil, reducing the use of firewood fourfold. The resulting red palm oil then undergoes a period of "timesettling" before the final filtration, meaning it can be used as artisan culinary oil as well as direct biofuel or diesel substitute.

Kretschmer's revolutionary "simple exterior conversion system" for stationary diesel engines enables diesel generators to be powered on 100% pure plant oil via heat transfer to reduce viscosity and achieve proper atomization and combustion of the American palm. Unlike biodiesel, which requires the use of caustic chemicals as catalyst ingredients, this straight plant fuel can be used directly in conjunction with an exterior fuel heating conversion system.

palm plantations. In addition to advancing the environmental and technical benefits of biofuel, the development of this oil farm will introduce a farming culture to the local indigenous people, who have only known subsistence-oriented hunting and gathering. In partnership with MOPAWI, GreenMicrofinance will identify and train farm entrepreneurs, building capacity to support a vibrant system of responsible farming. Moreover, the partnership will apply finance for production, processing, and transportation to further develop the oil farm.

“The beauty of this enterprise,” says David Hircock, Senior Advisor for Estée Lauder, “is the multidimensional, entrepreneurial approach. Many elements of this approach can bring much-needed cash into the economy and also negate the need for cash. For example, the indigenous community may not need to purchase diesel. Additionally, the enterprise incorporates important elements affecting local security issues, such as food, water, land and economics. Perhaps most importantly, this enterprise could show that the Mosquitia people are integral to the sustainable development of the area and local economy of Puerto Lempira, whereas at the moment they are so often marginalized. Now they can have a much-needed voice.”

GreenMicrofinance also seeks opportunities to finance the replication of this development

model into other indigenous communities, using a sustainable microfinance approach. This kind of innovation is essential for sustainable development, and can provide the means to turn an economically downtrodden area with few resources into a productive community that can preserve its innate natural stewardship and traditional cultural heritage while climbing out of poverty.

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