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Conserving the Environment is Good for Business

The Millennium Challenge Corporation (MCC) considers environmental sustainability a core principle of economic growth. Improving the quality of life of beneficiaries in the long term requires responsible management of the environment and its resources. To protect the environment and enhance development outcomes, MCAs, the entities implementing MCC Compacts, adhere to partner country environmental standards and MCC Environmental Guidelines, and seek out opportunities to promote responsible environmental management in the design and implementation of compacts.



Mrs. Gladys Francisca Baldizón from León now has a biodigester on her farm, where she cooks meals for 12 people every day. She reports that her daily use of wood has declined from ten pieces of wood per day to just four.

In Nicaragua, MCC invested \$32.9 million in the Rural Business Development Project. This project aimed to increase the value added and productivity of farms and rural businesses in the Departments of León and Chinandega via the provision of business development services, technical assistance, and financial assistance to farmers and rural business owners. MCA-Nicaragua worked closely with farmers to integrate environmentally responsible business practices throughout the implementation of the Rural Business Development Project.

Organic waste recycling in livestock sector

Many Nicaraguan farm families use an abundance of wood from surrounding forests as fuel for cooking. This puts a significant strain on the natural resources of the area; by investing in the establishment of 185 biodigestors, MCA-Nicaragua helped cattle farmers reduce their impact on the environment and save time and money.

Biodigestors are a waste-management solution that convert organic waste into a nutrient-rich liquid fertilizer and bio-gas. This allows farms to take advantage of organic waste, especially cattle manure, for the production of renewable forms of energy. Biodigestors trap methane from manure, making it available for cooking and, in certain instances, for electricity generation. This not only gives rural families a green alternative for cooking fuel for their homes, but also reduces the emission of harmful greenhouse gases from their farms.

The establishment of biodigestors is yielding benefits throughout host communities. First, they reduce pressure on natural forests; families that use them report, on average, a 50 percent reduction on their use of charcoal and wood for cooking. The benefit also extends to the household savings: Families using bio-gas report saving an average of \$100 per year. Lastly, women report that the biodigestors reduce the need for physical labor, allowing for less time and effort spent obtaining and carrying wood for cooking activities. Approximately 30 percent of the 185 farms with biodigestors were owned and managed by women.

Promoting integrated silvopastoral systems

Throughout western Nicaragua, many producers now practice silvopastoral farming, a process that integrates planting of trees and shrubs with grazing of domestic animals. MCA-Nicaragua educated producers about improved integrated farm practices, a process consisting of farmer technical support and training. Silvopastoral farming produces additional animal feed (using the leaves of the forage trees), provides shade for animals and contributes to soil conservation. Cattle manure is also used to fertilize the soils dedicated to crop production. Prior to receiving training on integrated silvopastoral systems, livestock endured summers with dry grass and little alternative feed, which had a direct negative impact on milk production and farmers' incomes.

The project promoted the planting of approximately 455 hectares of multi-purpose forage trees in cattle farms. Additionally, in an effort to reduce contamination of drinking water for human consumption, the project promoted the establishment of portable drinking points for cattle. This also improved the health of livestock by reducing episodes of dehydration and weight loss due to long walks to the river on hot days.

Wastewater treatment in milk collection centers

The promotion of good environmental practices was not limited to actions on beneficiaries' farms. Prior to the MCC Compact, some milk processing plants and collection centers had difficulty complying with national environmental regulations regarding the management of solid and liquid waste. With MCA-Nicaragua's help, these businesses obtained environmental permits, developed environmental management plans, established systems to treat the waste, and provided training and manuals to help prevent environmental contamination.

One of the businesses benefitting from this project is La Gaviota, an artisanal milk processing plant—one of 42 processing plants that received MCA-Nicaragua's technical and financial support. In June 2010, La Gaviota won first place in the national "Entrepreneurial Leadership 2010" contest for its demonstrated leadership in Social and Environmental Management.

Promoting technologies among clay artisans

La Paz Centro is an area in Nicaragua known for its traditional production of clay products like roof tiles, bricks and handicrafts. MCA-Nicaragua worked in La Paz Centro with nearly 100 artisans that traditionally used rustic open ovens for their production. These open ovens used a great amount of wood, which not only added to the costs of production but also put additional pressure on resources in the surrounding forests.

MCA-N invested in artisans and their cooperatives by providing financial and technical assistance for artisans to replace their traditional ovens with closed dome-shaped ovens. These ovens cook artisanal pieces in a shorter amount of time and use less wood. Prior to the provision of these ovens, artisans used an average of one “wagon” of wood per batch, costing about \$12. Now, for the same batch of clay products, artisans use about half that amount. This represents a 50 percent reduction on artisans’ costs of production and a reduction in the environmental pressure on the surrounding the area.