CROP DIVERSIFICATION IN THE DOMINICAN REPUBLIC: A MODEL THAT WORKS

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Introduction
In 1991 the Center for Ecumenical Action (CEPAE), a NGO in The Dominican Republic, developed a model that allows for the participation of multiple stakeholders. The farming system in the South Central portion of the Dominican Republic is composed of a coffee season from November through March and a non-coffee season from April through October. The Coffee season depends upon family labor as well as an influx of Haitian and Dominican laborers. Non-coffee season utilizes labor from the household to produce maize, rice, plantains, bananas, cassava, yams, and beans. The majority of the non-coffee crops are produced for consumption. The major constraints in the farming system have been the lack of money during the non-coffee season, deteriorating soil quality, and unstable prices of coffee in the international market.

The Collaborators
In 1991, CEPAE involved three organizations in a project to diversify the farming system of small and medium coffee producers. First, the National Institute of Hydraulic Resources (INDRHI) was included due to their expertise in managing irrigation and watersheds. Second, the Association of Coffee Producers of Los Cacaos (ASOCAES) was used to identify potential coffee farmer-participants. ASOCAES processes, sells, and transports coffee produced by its 812 members. Finally, The Autonomous University of Santo Domingo (UASD) was included due to its interest in working with low resource farmers.

The Program
Participatory rural appraisal was used to verify needs and identify solutions. The participants agreed that cash was needed during the coffee off-season, that food security improvements were needed, and that low cost techniques were needed to control soil erosion and enhance soil fertility.

A three-stage project was initiated in 1991 to address these needs. Stage one established a demonstration/investigation plot of ten tareas in Los Cacaos. The plot tested the viability/adaptability of numerous crops. Plantains, bananas, passion fruit, mapuey, and ñame were grown for the potential of an immediate contribution to family income. Macademia, zapote, carambola, mandarins, and avocados were introduced to serve as a source of money in the long term. Oak and corazon de paloma were established for wood and sold for lumber. Along with the crops, an alternative soil management program was also utilized. An environmental goal was to prevent soil erosion by composting, maintaining grass cover, and planting on the contour.

In 1993, stage two was implemented resulting in the establishment of four additional demonstration/investigation plots. One representative from each of the 21 communities that ASOCAES serves was selected to undergo training in establishing the demonstration/investigation plots in their communities.

In stage three, full control of the project was assumed by ASOCAES. In 1996, they decided to expand their role in the project with the establishment of the finca escuela (farm school of 50 tareas) and a nursery. The finca escuela was to teach recommended practices to farmers. The 21 communities alternated working at the school. The second initiative was the establishment of a nursery, to provide plant material at wholesale prices and relieve the bottleneck in the supply of plants.

Results
The project succeeded in changing the cultural practices associated with slash and burn agricultural. Currently only one percent of the farmers utilizes slash and burn agriculture. This is a decrease of 80-90%. In addition 46.7% of the participants reported an increased food security from the establishment of the demonstration/investigation plots on their farms. Another 42.1% has reported an economic benefit from the sales of produce from the crops promoted.

Educational Importance
The model is important because it provided substantial financial and environmental improvement in an area that had not been accessible through traditional extension. The model can serve as an example in developing nations that
have similar problems.