Feasibility of a Butterfly Farming initiative in Western Ecuador as a viable tool for sustainable development

Maria F. Checa
mfcheca@ufl.edu
Ecoclima Research Station, Quito, Ecuador

MDP, Center for Latin American Studies

Department of Entomology and TCD Program
McGill University for Lepidoptera and Biodiversity, FLMNH

BACKGROUND

Successful development is required in Western Ecuador, one of the most important areas of biodiversity worldwide, where 71% of people are poor and 10% of children are undernourished. Development challenges exist in addressing and overcoming complex social, economic, institutional, and environmental issues, as well as integrating communities in sustainable development efforts. Butterfly farming consists of raising butterflies in captivity and marketing them for local or international exhibitions. A new initiative in MDP practicum was carried out in the Lalo Loor Dry Forest Reserve (LLDFR) in Western Ecuador, where 70% of people are poor and less than 5% of forests remain. A development challenge thus exists of balancing and even increasing economic activity and biodiversity conservation efforts by generating the biological knowledge required for setting up a butterfly farming initiative.

OBJECTIVES

To: 1) carry out a strategic planning process for establishing a butterfly farming exhibition at LLDFR; 2) determine the feasibility of a butterfly farming project at LLDFR in terms of economics; 3) generate the biological knowledge required for setting up a butterfly farming initiative; and 4) conduct biological monitoring efforts to study the effects of climate and habitat change on butterfly communities.

1. Addressing weakness 1: Lack of biological information

A research assessment focused on gathering biological information required to farm butterflies, including information about butterflies. This study was carried out over two years from 2010-2012. A butterfly farm was created in the reserve and a sample of butterflies were evaluated during a 15-month period. From March 2010 to January 2013, a total of 17 species were evaluated by the Elkhart Butterfly Foundation. The major weaknesses included local government support for butterfly farming, human development efforts, and biological monitoring efforts.

2. Determine the feasibility of a butterfly farming project at LLDFR in terms of economics (e.g., market demand)

There exists between butterfly farming and forest conservation since farmers rely on natural forests to obtain butterfly species and make profits. A development challenge thus exists of balancing and even increasing economic activity and biodiversity conservation efforts by generating the biological knowledge required for setting up a butterfly farming initiative.

3. STRATEGIC PLANNING PROCESS

The strategic planning process was set up on a butterfly farming initiative in the Reserve. The strategic planning process was set up on a butterfly farming initiative in the Reserve. The strategic planning process was set up on a butterfly farming initiative in the Reserve. The strategic planning process was set up on a butterfly farming initiative in the Reserve.

4. How to farm butterflies?

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5. ESTABLISHING THE STRATEGIC PLANNING PROCESS

Three practical classes on biological monitoring techniques and applied research were given to students from PUCE. Two courses on butterfly farming were taught in the reserve during the 2012-2013 academic year. A total of 17 species were evaluated during the 15-month period of the study, and the reserve was 100% of the study area.

6. REVIEW OF THE ENVIRONMENT

The reserve exists between butterfly farming and forest conservation since farmers rely on natural forests to obtain butterfly species and make profits. A development challenge thus exists of balancing and even increasing economic activity and biodiversity conservation efforts by generating the biological knowledge required for setting up a butterfly farming initiative.

7. STRATEGIC PLANNING STEP 1: REVIEW OF THE EXTERNAL ENVIRONMENT

A reserve sits between butterfly farming and forest conservation since farmers rely on natural forests to obtain butterfly species and make profits. A development challenge thus exists of balancing and even increasing economic activity and biodiversity conservation efforts by generating the biological knowledge required for setting up a butterfly farming initiative.

8. STRATEGIC PLANNING STEP 2: REVIEW OF BUSINESS CAPABILITIES THROUGH SWOT ANALYSIS

Results suggest the reserve needs to develop marketing and advertising strategies in order to increase number of tourists, and increase revenue. A business plan is important for capital estimates and revenue. For marketing purposes, project managers can present several problems by making valuable analyses of business advantage in advance, and use an effective tool for business estimates.

9. STRATEGIC PLANNING STEP 3: ANALYZING THE MARKET PLACE

Pricing Strategy: Survey results suggested that Ecuadorians were willing to pay a higher average entrance fee ($4.9) compared to Ecuadorians ($3.6) and foreigners ($4.6). This finding indicates that Ecuadorians were more willing to participate if the project is implemented.

10. STRATEGIC PLANNING STEP 4: DEFINITION OF PRODUCTS AND SERVICES

The reserve exists between butterfly farming and forest conservation since farmers rely on natural forests to obtain butterfly species and make profits. A development challenge thus exists of balancing and even increasing economic activity and biodiversity conservation efforts by generating the biological knowledge required for setting up a butterfly farming initiative.

11. STRATEGIC PLANNING STEP 5: INFORMATION FOR ADVERTISING AND PROMOTIONAL STRATEGIES

Two women have continued to work and received training in the butterfly farming project. If the project is implemented, women’s empowerment might be promoted due to new sources of income and jobs for women. One woman was trained and received a payment of $50 per week. This finding might indicate that women would be more willing to participate if the project is implemented.

12. CONCLUSIONS

A reserve sits between butterfly farming and forest conservation since farmers rely on natural forests to obtain butterfly species and make profits. A development challenge thus exists of balancing and even increasing economic activity and biodiversity conservation efforts by generating the biological knowledge required for setting up a butterfly farming initiative.