

## **Adventures in Agrobiodiversity- Ecotourism for Agrobiodiversity Conservation**

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### **Abstract**

The continuation of evolution in agricultural crops depends on the maintenance of landraces managed *in situ* by farmers. Many farmers that maintain diverse farm plots also maintain a rich store of knowledge on uses and lore about diverse crops. These farmers usually have few economic options and are increasingly abandoning farming. In order to promote *in situ* conservation of landraces, options that increase their value to the farmer must be found. This study reports the results of an exploration of the implications of ecotourism for agrobiodiversity conservation. A desk review of ecotourism initiatives, supplemented with site visits to Peru and Mexico, revealed that ecotourism can live up to its promise of contributing to the conservation of nature while providing benefits for local human communities, although the benefits vary widely in scope and in their distribution within communities. Such effective ecotourism is only possible through partnership. Various stakeholders involved in ecotourism have recognized the viability of developing an ecotourism that focuses on the conservation of **agrobiodiversity**. An important finding of this study is the urgent need to educate all sectors about the importance of agrobiodiversity conservation.

### **Introduction**

*In situ* conservation of agricultural biodiversity refers to the maintenance of genetic resources on-farm, more specifically, conservation of landraces or the heterogeneous populations within cultivated species. This is recognized as a key type of diversity to maintain for the future viability of agriculture. The goal of *in situ* conservation is to encourage farmers to continue to select and manage local crop populations, thus keeping the process of evolution alive. It is widely recognized that in order to promote *in situ* conservation, the value of local crop varieties to the farmer must be enhanced beyond their value associated with provision for subsistence needs, overall the most important reason why farmers keep diverse crops. Concern with finding alternatives to increase the value of diverse local crops for farmers led us to explore developments in the apparent ecotourism boom of the last few years because of its possible relevance to *in situ* conservation of **agrobiodiversity**.

What is ecotourism? In the 1960's large international conservation organizations, environmentalists and scientists working in Latin America and Africa realized that the "preservationist" methods of separating people and parks were not working for conservation. Between the late 1970's and mid-1980's, a new type of tourism loosely related to nature or wildlife tourism gradually took shape. It was named ecotourism and was seen as having the potential to provide economic alternatives for human populations living in or around natural protected areas, while increasing public awareness of conservation issues (Ceballos-Lascurrain, 1991; 1998). The International Ecotourism Society (TIES) has provided a definition of ecotourism as:

*responsible travel to natural areas which conserves the environment and sustains the well-being of local people*

Despite considerable discussion over what tourism is ecotourism (Brandon, 1996; Honey, 1999, Orams, 2001) the above definition seems to contain the three elements still most widely accepted by conservation NGOs, government tourism agencies, the tourism sector and international organizations.

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- it provides for conservation measures
- it includes meaningful community participation, and
- it can sustain itself

This is the working definition used in this study to analyze tourism initiatives. It should be noted that implicit in this definition is the exclusion of human-modified landscapes as the sites of ecotourism and, as a consequence, agricultural landscapes. However, Lawton and Weaver (2001), writing in the first ever Encyclopedia of Ecotourism, explore the ecotourism potential of farms. Furthermore, they call for the need to create an inventory of opportunities for ecotourism in modified spaces.

Economic contributions and potential of the tourism industry. -As the world's largest industry, tourism generates US \$4.4 trillion in gross annual output, attracting \$657 billion in capital investment, and providing approximately 207 million jobs globally (WTTC, 2001). However, there is no systematic effort yet to gather data worldwide on ecotourism. Ecotourists are lumped with nature and wildlife tourists and figures vary depending on the source. The World Resources Institute found that while tourism overall has been growing at an annual rate of 4%, nature travel is increasing at an annual rate between 10% and 30%. WTO (1998) states that ecotourism and all nature-related forms of tourism account for approximately 20 percent of total international travel. For a growing number of countries, tourism based on natural attractions is a top earner of foreign exchange (CI, 2001). Regardless of whether these estimates are realistic or not, it is obvious that tourism, growing at an exorbitant rate, has yet to reach its full potential (Hawkins and Lamoreaux, 2001). By the early 1990's many a developing country government promoted ecotourism as part of their development strategy.

Successful (as well as less promising) examples of the revenues from such tourism being channeled back to local communities and used to promote biodiversity conservation are increasing.

### **Methodology**

A review of the academic literature on ecotourism was undertaken. In addition, websites set up by conservation organizations, development NGOs, self-labeled "responsible", or "green" travel sites, large tour operators' listings, some international development organizations, the World Tourism Organization, etc were also reviewed. Staff at CI's Ecotourism Center were contacted as well as academics knowledgeable about ecotourism. Site visits to ecotourism operations in Peru and Mexico also took place. The author attended tourism sector conventions, the Annual Tourism Fair in Peru, and the more specialized, 3<sup>rd</sup> Ecotourism and Adventure Travel Expo in Mexico. In countries, Government tourism officials, professional tour operators, tour company owners, community tourism officers, farmers, ecotourists, and tourism journalists were interviewed. Visits to some academics and NGO personnel involved in agricultural projects in both countries also took place. Tourism initiatives that provided information on at least two of the TIES ecotourism criteria and, at a minimum, some indications of community participation in the benefits of nature tourism were reviewed for this study. Most examples were from Latin America.

### **Results**

#### **In situ conservation and Tourism: A focus on protected areas**

The great majority of ecotourism initiatives have been developed in or around protected areas. In most cases the avowed objective was to lessen the impact of human populations in these areas by expanding the available economic alternatives. Ecotourism ventures were always

partnerships. All the participating communities had an established, legally recognized socio-political structure to represent and deal with outside stakeholders, (e.g., Community, Ejido). In all cases the communities contributed time and labor to build facilities, trail systems, etc. on their property, and attend training workshops. Outside partners included a private sector tourism company, the government, NGOs and occasionally academics, in various combinations. In all cases, the outside partners had the know-how to access seed funding from various sources for infrastructure investments and/or had the capability to offer training in tourism (and/or management experience) and related areas. Funding secured ranged from loans to outright grants and technical assistance. The marketing effort was usually the responsibility of the outside partner. Government partners either contributed matching seed funding, facilitated infrastructure development or mediated agreements between local communities and the private sector. Local NGOs were usually linked to an international NGO and acted as administrators of funding and providers of training.

A focus on farms. - Although agritourism or rural tourism has been around in Europe for many years it does not emphasize the actual agrobiodiversity that may be present on such farms, let alone their conservation. Table attach includes some of the few examples that were found of current agritourism initiatives with some focus on agrobiodiversity. So far, the only case where agrobiodiversity conservation is a focal point is the initiative in the community of Vicos, Peru. Basically, stays at farms that maintain high agrobiodiversity are central to the experience. The Vicos project is still in the final stages of development and should be tested this year. The agritourism experiences in Cuzco and Cajamarca, Peru also include tourist participation in different farm activities. Most of the agritourism sites in Peru were located in the vicinity of an archaeological/cultural tourist route (e.g., several sites in the Sacred Valley of Cuzco), while Vicos is on a mountaineering route, next to a National Park and not far from important Pre-Incan archaeological sites.

In the case of the fruit orchards of San Juan Tezontla, near Mexico City, the objective is the cultivation of introduced fruits and expansion of the cultivation of native fruits and herbs as well as agroecosystem recovery. The example of agroturismo in Spain emphasizes landrace farming (no details are given) and organic agriculture. The Consortium of Farm Co-operatives of Costa Rica focuses on nature education and medicinal plant tours as well as visits to neighboring national parks and protected areas from a farm base.

It is interesting that, in half of the cases in our list, farmers appeared interested in the cultural aspects of the experience. Sharing of their knowledge and traditions as well as the possibility of some cultural exchange was noted as a significant benefit, apart from the more obvious economic one. Whereas the Peru initiatives are aimed mostly at the international market, the orchards in Mexico and the lodges in Costa Rica attract domestic visitors too. The cast of partners included local and international NGOs, universities and the national government. There appear to be similar efforts under development in Ecuador and Peru as part of a strategy to expand economic options for farmers. In Mexico, the Michoacan State Tourism Secretary has just begun to develop an ecotourism venture on one of the islands on Lake Patzcuaro that could include agrobiodiversity elements. On the other hand, the GEF Meso-American Corridor project, with its heavy emphasis on indigenous knowledge, traditional agricultural practices and local participation, seems to present significant opportunities for ecotourism development.

The connections between agrobiodiversity tourism and interest in culinary arts and culinary culture also remain to be articulated as part of a common ecotouristic experience. Elements of this connection were seen in some of the tours developed by PromPeru (2000) and are important elements of cultural tours in Yucatan and the Central Valley of Mexico (Ehrenberg, pers. comm). Specialized tours focusing on food, cooking and culture already exist as tour offerings to Mexico, Thailand, Morocco, India, Vietnam, China, in addition to the best known and the very popular Italy.

Summary of observations on benefit-sharing

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- Communities realize financial benefits, but their distribution relates to the benefit-sharing structure negotiated between partners.
  - Job creation is generally limited since ecotourism favors small tour groups
  - Communities always participate in decision-making but extent of participation varies widely from sporadic consultation to day to day management of operations.
  - Various types of educational benefits are realized during ecotourism development, most notably training to interact with tourists, small enterprise management crafts marketing, etc.
  - Communities generally reduce non-sustainable use of protected areas
- Ecotourism is mostly respectful of local culture

In sum, ecotourism is no panacea for either community development or conservation, but it holds promise for both in the context of a set of diversified economic activities that also value people rather than just make commodities of them, as more conventional tourism has done in the past.

### **Ecotourism for agrobiodiversity conservation: Does it have a have chance?**

1. Ecotourism based on agrobiodiversity makes sense and represents an underutilized opportunity to both expand the ecotourism offer and extend benefits to farmers. This was the consensus response of stakeholders in Peru, Mexico and the U.S. – ecotourism professionals active in the field, government officers from tourism boards, ecotourism academics, ecotourism journalists and various farmers. Tourism geared to showcase agrobiodiversity on farms, local culinary traditions and medicinal plants was judged to be an attractive product that would interest the ecotourist, but also the tourist interested in cultural experiences. As has been shown by this study, the offer of this kind of experience is very limited in areas of high crop genetic diversity. There does appear to be a good degree of overlap between Centers of Crop Domestication and major ecotourism destinations, thus providing a basic window of opportunity in the guise of captive tourists.
2. The body of experiences and lessons learned in ecotourism during the last 10 years indicates that overall this approach can fulfill its promise of supporting conservation through provision of various benefits – though some very modest – to local communities. Benefit-sharing schemes are situation-specific. Ecotourism is always one of several economic activities pursued simultaneously. The experiences in natural resource conservation through community-based ecotourism and pro-poor tourism indicate that, in many cases, properly designed tourism ventures diversify economic options, increase incomes and contribute to job creation. In the case of the very poor, it may help them leave the ranks of the poor. Conservation objectives are achieved by reducing the reliance on the resources of protected areas and by foregoing environmentally destructive activities. This approach still needs to be tested for *in situ* conservation of agrobiodiversity, but it appears very promising.

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In Situ 2001 E-Conference (5 november to 17 december, 2001)

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Nature tourists can be defined as tourists visiting a destination to experience and enjoy nature, and wildlife visitors are tourists visiting a destination to observe wildlife (e.g. bird-watchers).