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# TOURISM, PROTECTED AREAS AND COMMUNITIES:

Case studies and lessons learned from  
the Parks in Peril Program

2002 – 2007



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# PREFACE

The Nature Conservancy (TNC) has an organizational goal - *By 2015, The Nature Conservancy will work with others to ensure the effective conservation of places that represent at least 10% of every Major Habitat Type on Earth.* While this is an ambitious goal, we are not starting from scratch—at least 5 percent of the Earth’s surface currently falls within a protected area, and we may be more than halfway to the Goal already for a majority of the habitat types. However, we recognize that while some natural areas may be protected on paper, in reality many lack the management capacity and resources necessary to really be able to count them as effectively conserved, or *consolidated*.

The Parks in Peril (PiP) Program – a Conservancy partnership with USAID has been working to consolidate Latin America’s protected areas since 1990. Parks in Peril 2000 is a five year extension of the original program, and concluded in mid-2007. As its core strategy, PIP strengthens local partner organizations at these sites, building a sustainable capacity to achieve enduring conservation of biological diversity. PIP helps consolidate the tools, infrastructure, staff, institutional and technical capacity, local support, and financing necessary to conserve and manage these protected areas. This effort includes engaging local communities in management decisions, conservation activities, and alternative economic activities, fostering support for the protection of these areas. Working with partner organizations to promote important policy changes that make successful long-term conservation possible is an important part of the PIP agenda.

The ecotourism and tourism component of PiP 2000 focused on working with partners, including conservation organizations, communities, the private sector, and protected areas managers around Latin America to advance tourism that:

- Contributes to the financial sustainability of protected areas;
- Reduces threats to protected areas;
- Supports rural communities living in and around protected areas with opportunities to develop sustainable businesses.

More specifically, the PiP tourism component supported ecotourism planning and development in Central and South America at 10 project sites (out of 12 sites total supported by PiP 2000), and numerous system level initiatives, while also providing coordination between projects and training.

While this publication often utilizes the broader term tourism because it addresses all visitation in protected areas, the concept of sustainability and the development of ecotourism with its key additional components of intrinsic community benefits and visitor education, are at the heart of our objective to maximize the potential of park visitation as a significant contributor to conservation.

In February 2007, as the PiP program neared completion, the Conservancy organized a conference in Cartagena, Colombia to examine results, challenges and lessons learned. The overall conference theme was Ecosystem Services and one of the three tracks was Tourism and Ecotourism. Twelve presenters offered case studies (including three that were not a part of the PiP program but were thematically related), and seven were written up as chapters for this book. Another chapter (Chapter 6) provides the results of interviews of three tourism case studies within the PiP program.

The Parks in Peril 2000 program, with a small portion of its total 5-year investment, has produced a diversity of ecotourism experiences throughout Latin America and the Caribbean.

These experiences have focused on developing the booming demand for visitation to protected areas as an effective strategy for conservation and human well-being. There have been some notable successes, while the primary value of some others may have been the development of experience and learning. As a result of this investment, millions of dollars of new revenue for protected area conservation have been generated. Thousands of park managers, tourism professionals and students, conservation NGO staff, government technical staff, and community members have benefited from training and learning from courses and publications. Policies have been influenced at community, local, national, and international levels. What's more, the lessons learned

from Parks in Peril's tourism and ecotourism investments have been shared well beyond the original Latin America and Caribbean focus to contribute to conservation globally.

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# OVERVIEW OF LESSONS LEARNED AND RECOMMENDED APPROACHES FOR MANAGING TOURISM TO BENEFIT CONSERVATION AND COMMUNITIES

This chapter summarizes the main accomplishments and lessons learned from the tourism and ecotourism components of the PiP 2000 program as presented at the February, 2007, Payment for Ecosystem Services and Tourism conference in Cartagena, Colombia. The chapter presents new approaches and strategies that the Conservancy has developed as a result of tourism work during the five years of PiP 2000 support. It offers new insights on how to most effectively ensure that tourism in protected areas benefits conservation and communities over the long-term.

## Tourism and Conservation

The Nature Conservancy promotes ecotourism as a strategy for realizing the long-term conservation of biodiversity and maintenance of healthy ecosystems. Tourism in protected areas, when successful from a market perspective and sustainably-operated, provides revenue for management. It also generates income for communities and institutions with an interest in conserving natural and cultural resources. The projects that comprise the PiP tourism component were designed to build tourism management capacity in protected areas and create and support ecotourism operations managed by local communities or private businesses utilizing, and contributing to, protected areas. Findings are presented under the two major headings of strengthening local communities to manage sustainable tourism operations; and developing financial strategies for protected areas.

## Strengthening Local Communities to Manage Tourism Operations

Community-based ecotourism is a popular strategy adopted by conservation NGOs with the aim of both reducing threats to protected areas and improving the well-being of local communities. Its scope of impacts extends far beyond individual protected areas, influencing regional and national economies and policies, as well a country's international image. The PiP program's focus on creating and strengthening local organizations and businesses to manage tourism in and around protected areas and to work closely with park managers produced a variety of successful outcomes.

## Accomplishments

In Peru, program interventions included creating a consortium of non-governmental organizations (NGOs) and communities to develop and manage ecotourism in Pacaya-Samiria Reserve. The Consortium improved tourism infrastructure, trained local providers in guiding, tourism management and administration, and developed marketing strategies and relationships with tour operators. One of the most valued outcomes was the creation of a group of committed stakeholders, collaborating successfully as a result of team building and training exercises.

In Guatemala, the PiP program helped develop a system of regional municipal parks in the Lake Atitlan watershed. Using the San Pedro

Municipal Park as a model, measures were taken to officially declare a municipal conservation area, develop a management plan and marketing strategy for promoting natural and cultural resource conservation through ecotourism, and design and implement an ecotourism program around specific natural, cultural and agricultural resources. Increased access to the national forest incentives program also provided income and incentives for conservation. By establishing a community tourism network which includes local NGOs, government protected areas managers, and national tourism operators, and creating mechanisms for co-administration of the reserve, residents committed themselves to ensuring protection of the protected area while providing benefits to the community through ecotourism.

In the bi-national Amistad Biosphere Reserve, comprising protected areas in both Costa Rica and Panama, the focus was on developing and strengthening local tourism networks. Training was provided in tourism planning, language, finance management, field interpretation, and above all, institutional strengthening. Mechanisms were developed to ensure that the community-based organizations communicate and coordinate effectively with other institutions. As a result, community members and organizations report feeling empowered and more invested in the conservation of their diverse territories and cultures. In addition, a site assessment was used to measure the impacts of visitation on the site to produce recommendations for more effective tourism management.

In Oyacachi, Ecuador, the recent completion of an ecotourism feasibility study and business plan served to guide a series of community-based tourism interventions in Cayambe-Coca reserve, part of the Condor BioReserve. This empowered the community's Ecotourism Committee to create mechanisms ensuring that tourism revenue contributes to the maintenance of tourism infrastructure and services. The group worked to evaluate and redesign tourist services and attractions based on market and financial analyses, improve signage and infrastructure, market the

destination to specific market segments, and form alliances with other institutions for training and implementation of best practices. The result was the creation and implementation of a tourism business model that provides more diverse and rewarding opportunities for visitors and community members, alike.

## Lessons Learned

### *Increasing Local Collaboration and Awareness*

A number of common themes and lessons emerged from these projects and the discussions that took place in Cartagena. First and foremost is that the **creation of networks and alliances** which integrate community organizations, protected areas managers, local government representatives and tourism operators is a key factor for long term success. In other words there is a need to strengthen the integration of the tourism **value chain** both horizontally (local businesses with each other) and vertically (local businesses with national and international operators) and build **tourism clusters** around focal attractions in protected areas. The active participation of a range of interested stakeholders builds commitment to both the development process and the results of tourism programs. By establishing common objectives and using participatory planning techniques, communities can begin to take ownership of and responsibility for tourism operations which benefit conservation as well as local economic development. At the same time protected areas managers and conservation NGOs can focus on managing natural resources and facilitating research, education, training and advocacy.

A participatory approach to tourism planning and management entails the satisfaction of certain prerequisites. These include good **coordination and open communication**. For instance, the tourism consortium in Pacaya-Samiria realized the value of hiring a tourism specialist who understood the environment and culture of the Amazon and who traveled throughout the area to provide communication, outreach and coordination services. And, in Oyacachi ensuring

the transparency of tourism committee activities was an important factor for success. Participatory planning and management of tourism in protected areas offers a much-needed sense of openness and trust between communities and area managers.

Capacity building for **developing technical skills in tourism management**, as well as managerial, administrative and financial capabilities, empowers community members to establish tourism businesses. It also serves to expand opportunities for local populations, preparing them to work with local governmental and non-governmental institutions, as well as in a variety of businesses complementary to ecotourism. While tourism operations are designed to become sustainable, the tourism committee in Oyacachi realized the need to develop and utilize fundraising skills to continue to improve their operations after the end of the PiP program. Also evident was the need for ongoing training to improve the quality of tourism services within community-run businesses and to ensure effective management over the long term.

Continual education and outreach to community members and other stakeholders regarding the benefits of conservation and the **links between tourism and conservation** is essential. Government authorities, in particular, and especially in Guatemala and Peru, needed to be courted to ensure their approval and participation on issues requiring official approval. In Guatemala, community members who had previously enjoyed unfettered access to the new protected area were most resistant to change, requiring additional attention and awareness-raising.

While effective monitoring was lacking in most of the projects, the need was evident and there was a strong desire among tourism committees and networks to establish impact monitoring systems as soon as there was sufficient capacity

and financing to do so. The reality is that often projects do not budget adequately in the feasibility or planning stage to ensure that funds are available for this activity.

At the same time, in order to reduce the risk of creating economic instability, tourism must not be considered the only means of providing livelihood or for affecting conservation of natural and cultural resources. **Additional economic alternatives** need to be developed to diversify local economies as well as to ensure sustainability. These include handicrafts development, agriculture, transport services, cultural institutions, etc. In Oyacachi in particular, the Ecotourism Committee made a concerted effort to develop new products, offer relevant trainings, and market products and services under a “green seal.” This resulted in expanding the market beyond their traditional one of hot springs enthusiasts, thereby increasing tourism benefits.

#### *Improving Business Planning and Administration Skills*

Another common theme was the fundamental importance of **business planning**. It is essential that tourism businesses, including community-owned tourism businesses, be based on adequate feasibility studies which identify costs, identify markets and project revenues as realistically as possible, *prior* to making the decision to proceed. This critical step has often been overlooked by conservation NGOs seeking to support community business development which can consequently dash hopes and expectations and squander scarce resources on business ventures that lack solid financial grounding. The plan itself also provides a framework for guiding business activities and identifying responsibilities. One of the functions of the plan is to identify how revenue might be distributed among stakeholders. In Oyacachi, transparency in business planning and committee activities was important to maintain the trust and participation of community members.

### Lessons Learned in Community-Based Tourism

- Tourism planning and management in protected areas should involve multi-stakeholder alliances of community organizations, protected areas managers, local government representatives and tourism operators.
- Coordination and open communication are critical and necessary elements of the participatory process.
- Capacity building for developing technical skills in tourism management, as well as managerial, administrative and financial capabilities, is needed to empower community members to establish tourism businesses.
- Ongoing education and outreach to local stakeholders regarding the benefits of conservation and the links between tourism and conservation are essential.
- Additional economic alternatives to tourism also need to be developed to diversify local economies as well as to ensure sustainability.
- Preparing a business plan is an essential precursor to investing in tourism businesses.
- Ecotourism infrastructure, including healthy and diverse natural areas, must be maintained in high quality conditions. The costs of investment and operation need to be included in the initial business planning.
- Developing strong relationships with national and international tour operators facilitates and expands marketing and sales opportunities as well as management expertise.
- A thorough understanding of indigenous peoples' priorities and interests is essential when engaging in tourism programs with indigenous communities.
- The experience and training offered by PiP have given local peoples a wide range of transferable skills which can be used to establish other conservation-oriented businesses and programs.

Business plans need to include all investment and operational costs including **maintenance of ecotourism infrastructure** and impact monitoring. For example, the tourism council in Pacaya-Samiria correctly set aside some of the tourism revenue for maintenance purposes, thereby contributing to the long-term financial sustainability of the project. Finally, business planning must also consider the impacts of

tourism on protected areas and identify ways to finance the minimization of negative influences. Marketing of any tourism product is fundamental, yet so often it is neglected in community-based tourism projects. Many fail to budget adequately for it and consequently fail due to a lack of marketing. This is likely because their sponsors are conservation NGOs who are not familiar with the rigors of business development. The tourism

councils found it helpful to develop strong **relationships with national and international tour operators** to carry out marketing and manage sales. In Oyacachi, it was useful to conduct a market analysis and develop new products and services geared specifically to desired ecotourism markets. The creation and diffusion of marketing materials – brochures, flyers, websites, etc. – was another important marketing step they took to further increase visitation to their site.

While not funded by the PiP program, the experience of two community-based tourism operations in the Ecuadorian Amazon provides valuable relevant lessons, especially for working with indigenous peoples. The case studies of ecotourism partnerships between private tour operators and Huaorani and Achuar indigenous peoples, respectively, indicate that while the amount of money generated by ecotourism is small relative to average local salaries, ecotourism has provided significant benefits to these populations and to conservation. These benefits must be examined within the context and an **understanding of the priorities of many indigenous peoples**.

In the Huaorani community, as well as in other indigenous Amazonian populations, money is not a major indicator of well-being. According to the chapter by Rodriguez in this publication, the five most important elements for living well are education for one's children, time to be with family, good health, access to nature, and having sufficient food. Money is seen to be useful to provide education to youngsters and to buy medicine or access health services in case of emergencies. It is not, in itself, a sign of success or happiness. While engagement in tourism implies more limited time to spend with family members, these Huaorani and Achuar communities have found that their ecotourism ventures do result in improved educational opportunities and healthcare.

Another significant benefit of ecotourism development support in the Amazonian communities is increased capacity in business

planning and management. Traditionally, most indigenous peoples have had little experience in business. They have lacked the administrative, financial management, and communication skills needed to operate businesses that can function on national and international scales. The support provided through ecotourism partnerships, funded by donor programs such as the PiP program, and/or with NGOs has allowed local peoples to **gain a wide range of transferable skills**. In fact, as a result of the training and experience Achuar community members received through working in tourism, many are developing additional complementary revenue-generating activities. Tourism development has therefore had a multiplier effect by extending conservation and monetary benefits to larger segments of the population.

In addition, by engaging in community-based ecotourism, indigenous people are now better able to interact in an equitable fashion with the mainstream economy. They understand the link between successful ecotourism programs and conservation, and are adjusting some traditional practices accordingly. For instance, the Huaorani are aware of which forest species are tourist attractions and have reduced hunting of these animals. The more recent trend to go work for oil, mining or timber companies is also changing as ecotourism is seen as an alternative to these socially disruptive and environmentally destructive revenue generating practices. Instead, the Achuar and other indigenous groups such as the Cofan Indians (also in Ecuador) have turned to tourism. They are glad to have jobs and to develop professional skills in an industry that requires protection of their natural and cultural resources.

## **Developing Financial Strategies for Protected Areas**

While there is much discourse confirming that tourism in and around protected areas has benefited conservation, local communities and the tourism industry, the costs to biodiversity resulting from insufficient tourism management

are often not clear, nor accounted for. Typically, government and private funding for management of national parks and reserves is insufficient to manage tourism impacts, especially as tourist numbers increase. There are significant opportunities for tourism to contribute more effectively to protected area management costs. PiP tourism activities have included working with protected area systems in creating and implementing revenue generation mechanisms, including entrance fee and donation programs.

## Accomplishments

In Costa Rica, the PiP program supported developing a financial sustainability strategy for the national system of protected areas. Previous research had indicated that existing entrance fee systems were not reflective of the value of services provided, nor of user willingness-to-pay. And, income raised from tourism was not reinvested sufficiently into the areas where it was generated and where the need was greatest. Therefore, the PiP program developed a methodology to evaluate entrance and other user fees on a case by case basis, and to train local managers to apply it in their particular protected areas. To facilitate buy-in, the process for creating and applying the economic valuations was consultative, bringing in park managers, community members, tourism businesses, and government institutions.

In Ecuador's protected areas system, as in many others in Latin America, there is a disconnect between the real costs of tourism management and the generation and reinvestment of tourism revenues. A study of the economic value of tourism in protected areas was conducted in order to elucidate, with hard financial data, the reality of this relationship. The study identified the minimum investment needed to cover the costs of managing tourism (*the threshold of sustainability*) and highlighted *complimentary opportunities* that could provide revenue while improving the quality of the tourism experience and creating opportunities

for the tourism industry and communities. Results indicated that both the natural capital of the park system and tourism demand are suffering due to insufficient investment in tourism management and that revision of fee collection and reinvestment is needed. But critically, the study also demonstrates the market was prepared to pay more for the privilege of visiting Ecuador's protected areas. This methodology developed for Ecuador has generated great interest internationally, and is currently being applied in a similar fashion in Peru's protected area system.

In Bolivia, an evaluation of the pilot entrance fee program that was previously established with PiP support at the Eduardo Avaroa Reserve (REA) examined fee levels and structure, revenue collection and management, and the perceptions of stakeholders. The program generated \$750,000 over six years. Recommendations from this evaluation were broadly shared and discussed at a major workshop in September, 2005, in Cochabamba with the Park system director and management, as well as representatives from the 12 most-visited Bolivian protected areas and others. The workshop was a watershed in tourism management in Bolivian protected areas, resulting in a commitment to implement the lessons learned from the REA evaluation at initially eight additional protected areas, and to make the necessary policy changes at national level to facilitate this. Due to the resulting efforts, within three months a presidential decree was promulgated, creating the legal framework for this policy initiative.

Another project which sheds light on tourism financing for protected areas, though not funded by the PiP program, was a study conducted in Colombia on concessions for environmental services in national parks. It examined the legal, institutional, economic and environmental aspects of introducing concessionaires, as well as stakeholder impacts. A pilot project implemented in Amacayacu National Park

indicated that concessions can increase park visitation, improve tourism services and infrastructure, and create opportunities for training community members and thus expand economic opportunities. An equally important finding was the need to raise public awareness about concession systems to assure park service officials and community members that the private concessionaires were not going to take away managers' jobs, restrict park access or eliminate benefits to local stakeholders.

In Guatemala, the generation of revenue for Regional Municipal Parks via park entrance fees allowed for investment in tourism infrastructure (visitor centers and a museum) and to hire park rangers and directors. The development of these tourism resources was preceded by careful assessment of the distinct attractions of each site. As a result, a variety of tourism opportunities became available for different stakeholders. At the same time, improvements in park infrastructure prompted local residents to take pride in their parks and to value conservation of nature as well as their own cultures. Decisions about the distribution and management of visitor fees were made in collaboration with many stakeholders including business owners, the guide organization, artisans, tour operators, local government and park staff. This ensured a common understanding, resulting in fewer conflicts and an increased desire to invest in the future of the park.

## Lessons Learned

Several important lessons were learned from these studies and pilot projects. First and foremost, it was clear, especially in Eduardo Avaroa Reserve and in Colombia, that the implementation and management of user fees programs can generate significant revenue for managing protected areas and tourism impacts. The growing number of tourists, especially from industrialized nations, who visit Latin America's protected areas creates an excellent opportunity,

currently not properly exploited, for significant revenue generation for conservation.

However, in addition to implementing more effective, technically based revenue generation mechanisms, it is critical to ensure resulting revenue is invested in the sites generating income in order to, at a minimum, cover the costs of meeting the threshold of sustainability. To fail to do so is to condemn the nations' natural capital, especially its natural tourism attractions, to ruin, with the consequence of reducing its revenue generating potential from tourism. Some parks are already experiencing this decline.

It is important to establish the legal framework for instituting user fees and that stakeholders are aware of how fees are collected and applied. **Additional tourism-based mechanisms** including concessions, donations and annual operating license fees for tour operators, are also recommended. Laws and regulations are needed to be able to ensure they are applied efficiently and equitably. This includes having tiered tariffs to distinguish between national and developed country visitors.

In Ecuador, as well as in Colombia, it was found that the collection and management of user fees is **best delegated to third party entities** trained in financial and tourism administration. However, to succeed there must be a clear understanding of the purpose of the fees and the process used for collection and distribution. It is important to promote participation, especially of the tourism industry, throughout the process of evaluating and developing user fees systems. **Implementation requires consensus** and political support from all stakeholders – politicians, protected areas managers and institutions, communities, indigenous peoples, tourism businesses, etc. Ongoing education is needed to allay fears that the presence of concessionaires or outside entities leads to the “privatization” of parks.

### Lessons Learned in Tourism and Financial Sustainability of Protected Areas

- Tourism revenues should be reinvested in the area where they are generated to minimally recover the costs of tourism management and ensure the *threshold of sustainability*.
- A range of tourism-based mechanisms including entrance fees, concessions, donations and annual operating license fees for tour operators, are available and recommended as part of a comprehensive revenue generation program.
- Collection and management of user fees may be better outsourced to third party entities trained in financial and tourism administration, thus liberating park staff to focus on conservation management.
- The development and implementation of revenue generation systems must count on the participation and support of a wide range of stakeholders including system and site level park managers, the tourism ministry, local government and the tourism industry.
- Ongoing education and outreach with local stakeholders is recommended to avoid misunderstandings about the collection and use of fees.
- Economic and market-based evaluations of tourism in protected areas are needed to develop effective revenue generation systems.

### The Ecotourism Conservation Support Program (CSP)

While a range of projects were implemented by Conservancy staff and partners at site and system level around Latin America, the Ecotourism Conservation Support Program also provided overall guidance and support. This support included providing training and producing publications to share lessons learned. Most important among the publications is the two-volume book entitled *Ecotourism Development: A Manual for Conservation Planners and Managers*. The manual was distributed in English, Spanish, French and Portuguese versions to approximately 10,000 conservation and tourism professionals and also updated in a 2<sup>nd</sup> edition. Thousands more have been downloaded from [www.nature.org/ecotourism](http://www.nature.org/ecotourism) and have contributed to making that website among the most popular of all

Conservancy websites. A special print run of the manual was also financed by the UNDP for distribution through their own networks. Training courses globally have included the World Ecotourism Summit, Quebec, as part of the UN International Year of Ecotourism, 2002, The World Parks Congress in Durban, 2003, The World Conservation Congress in Bangkok, 2004. At a regional level in Miami, Jamaica, Panama and Ecuador (Quito and Galapagos) and at a national level in Bolivia. Other publications, case studies and reports are listed at the end of this chapter.

### Conclusion

As described over the course of this chapter, each of the projects and case studies included in this publication generated a series of valuable lessons learned. Yet while many common conclusions

from project experiences and research findings were presented (refer also to the boxes above which summarize the lessons learned), there are also broader and more over-arching conclusions that can be made.

Many of the lessons became evident as field experiences have been examined from a programmatic perspective. Through the process of adaptive management – e.g. planning and implementing programs based on research and existing knowledge, continually assessing progress, and making adjustments as needed – modifications were made over the course of the PiP Program which produced more effective methodologies and practices. This section identifies conclusions and recommendations at the programmatic level, offering strategies and approaches for future investment in protected area tourism development going forward.

Consistent with the focus of PiP tourism activities, lessons relate to the following themes:

- Community-based tourism which fulfills objectives of local stakeholders while supporting conservation;
- Conservation finance that ensures tourism in protected generates economic resources for protected area management and surrounding communities; and
- Monitoring and evaluation of tourism impacts to measure program effectiveness and generate broadly applicable lessons.

### **Community-based tourism**

Over the life of the project, the approach to supporting community-based tourism in the program has evolved. While initial PiP investments in infrastructure, training and the creation of joint ventures with communities – e.g. in Pacaya-Samiria National Park in Peru and the Oyacachi sector of Cayambe-Coca National Park in Ecuador – have created new economic opportunities based on protected area conservation, the long term viability of

this project model once donor funding ends is less certain. The lessons gained through these experiences point to three essential elements needed for success in the future:

- An increased focus on setting more realistic business expectations coupled with greater investment in business planning.
- Capacity building in marketing and increased attention to the demand side of tourism rather than the supply-side. Private tourism operators are essential partners to ensure market success.
- Recognition that in some cases the benefits of community-based tourism on the local-level may be non-monetary and social.

The focus of more recent projects is to support communities in their own efforts to create business-oriented ventures. Greater emphasis is placed on developing sound business expectations among the members of community-based tourism alliances, on providing training in marketing and business planning, and on encouraging and facilitating links with private tourism companies.

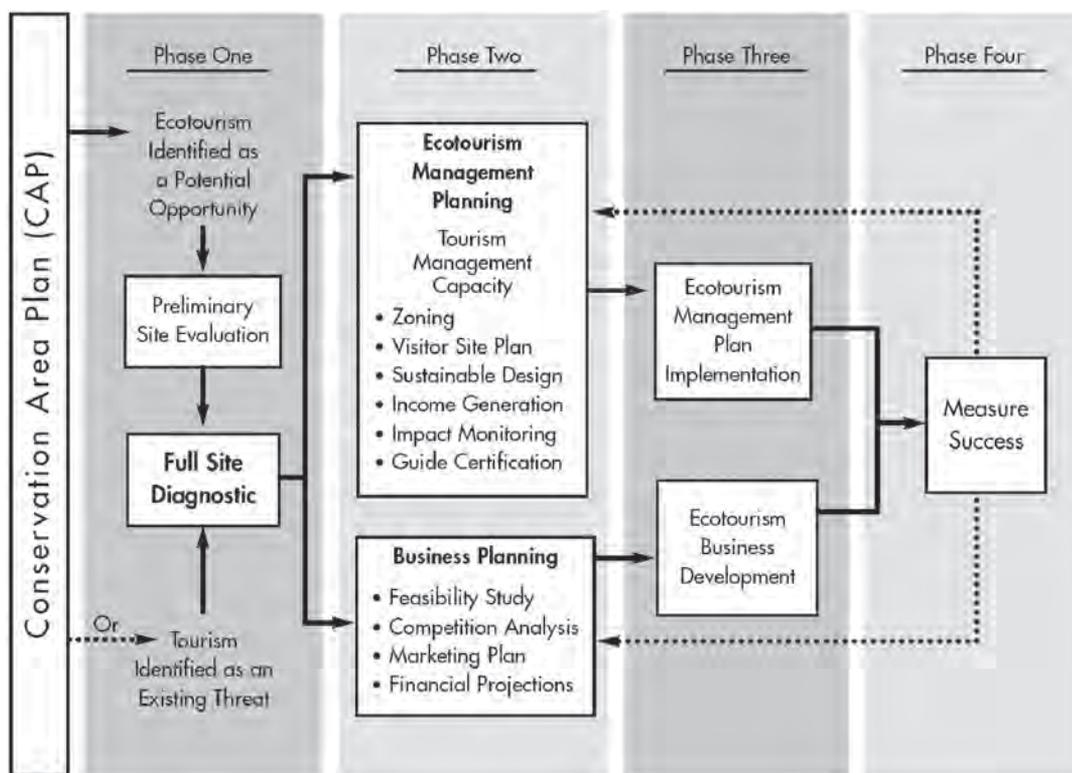
*Ecotourism Development: A Manual for Conservation Planners and Managers, Volume 2* provides detailed guidance for developing tourism programs with both an effective conservation as well as a solid business foundation. It recommends the development of two types of plans: an ecotourism management plan which identifies where and how tourism will be managed in a protected area, and a business plan which examines economic feasibility, markets and revenue outcomes. Figure 1 below graphically depicts this comprehensive step by step approach towards tourism and conservation planning.

In addition to evolving a more business-oriented approach to tourism in protected areas, the PiP program has also demonstrated the importance of non-monetary measures of sustainable tourism. For example, when considering tourism benefits to local populations, it must be recognized that

for many rural communities money, *per se*, may not be the most important priority. Rather, local concerns may revolve around health, education, conservation of natural and cultural resources, and family or community well-being. When tourism contributes toward these ends, community members may be satisfied even when larger monetary gains do not result. These less quantifiable values were reported among the results of many of the community-based tourism projects which the PiP program supported. However, these situations should be carefully evaluated *prior* to investment if these non-financial goals are in fact the primary objective rather than a secondary outcome. It will also be necessary to address the long-term financial viability of such an approach and to compare this with potentially alternative ways of achieving the same outcomes, e.g. making direct payments for conservation.

It is equally important to note that through ecotourism, community members have become empowered with transferable skills and as stronger advocates for conservation. Through engagement in tourism, they are supporting their families, providing education and health benefits to their children, developing new business opportunities, and affecting change in their communities. At the same time, they are committed to conserving the natural and cultural resources that are part of their heritage. They are becoming conservation's strongest supporters, and are developing skills to work with protected areas managers, local governments, businesses and other members of civil society to assure that tourism creates value for themselves and protected areas. In some cases, this includes applying their newly-acquired skills – closely associated with conservation values – to other places and enterprises beyond tourism.

Figure 1: Diagram of the Ecotourism Management and Development Planning Process



This diagram summarizes the steps involved in the ecotourism management and development planning process. At sites where tourism is not developed, but has been identified as a potential strategy, the process begins with a preliminary site evaluation. In cases where existing tourism has been identified as a threat, the process is undertaken to determine how ecotourism can be managed as a conservation strategy.

## Financial Sustainability

Within the area of conservation finance, the emphasis has shifted from working at the level of individual protected areas to the national or 'system-wide' level while also examining a broader range of income opportunities. The creation of models for implementing entrance fees systems in Bolivia, based on the work done at Eduardo Avaroa Reserve, or on concession systems in Colombia – e.g. at Amacayacu National Park - informed the implementation of user fee programs across entire national protected areas systems. In addition, the studies focusing on the tourism revenues and costs of the Ecuadorian protected area system, and on entrance fees in the Costa Rican protected area system, provide financial data and methodologies for designing and implementing effective system-wide income generation programs.

To provide recommendations for how tourism can contribute to the financial sustainability of protected areas, economic valuations and some business planning need to be conducted to determine market demand, appropriate fee levels, and revenue collection policies, protocol and distribution. They must be guided by the following underlying principles:

- The threshold of sustainability of each protected area must be met. That is, a minimum level of investment is needed to cover the cost of tourism management in protected areas that provides the infrastructure, training, and services needed for visitors to have a positive experience - without compromising the ability of managers to protect the area.
- Complimentary services, sanctioned by protected area management plans, should be offered. These include lodging, food, and rental of equipment which enhance visitor experiences and create economic opportunities for local communities and businesses.

When conducting such analyses, it is important to work with multi-stakeholder groups so that appropriate organizations from both private and public sectors are informed and strengthened to implement fee collection and usage. At the same time, close communication with community members is recommended to ensure they too support the system and can benefit from it.

## Monitoring and Evaluation

Monitoring and evaluation of tourism impacts, achievements and challenges is a critical practice often left unimplemented. It is essential not only to ensure that project objectives are met, but also to generate lessons learned. Once indicators for success and criteria for their measurement are developed, project results can be better described, measured and analyzed. This assessment of outcomes becomes a useful resource for the adaptive management of existing projects as well as for informing and improving the design and management of other projects.

Therefore, future investments in developing tourism to protected areas will establish a set of common indicators and criteria which can be used for monitoring and evaluation and applying lessons learned. It will include a system of established formats for measuring and recording results. At the outset of individual projects, environmental, and socio-economic data will be collected to develop baseline information on relevant natural and cultural factors. Methodologies will then be developed to define clear, measurable objectives and a process for assessing their achievement. Findings and lessons learned will be shared at forums to generate discussion among project stakeholders, and be put in writing and disseminated to wider audiences. In this way, the value of on-the-ground experiences in implementing new approaches to generating tourism revenue and empowering local populations through tourism will be enhanced and will serve to guide future program activities.

## The Future

In addition to the educational value of monitoring and evaluation for improving conservation and tourism practices, there can be economic and political value to the data gathering process. By quantifying the contribution that protected area tourism makes to the local and national economies, the opportunity exists to build a stronger public constituency for conservation through tourism, and to pursue significant public and private funding opportunities to realize this vision based on this economic justification.

The revenue generated through these investments in tourism to protected areas - for the protected areas system and national tax base, as well as for communities and businesses and - must be evaluated, disseminated and leveraged for conservation purposes. Such analyses can lend strong support for increasing public and private investment in protected areas. Action plans which ensure the effective management of tourism in protected areas offer opportunities for income generation on a national level, as well as the mobilization of donor funding for supporting the long term value of this income source for local people and biodiversity conservation.

## Tourism and Ecotourism Publications of the PiP 2000 Program

The following publications may be downloaded free of charge from [www.nature.org/ecotourism](http://www.nature.org/ecotourism):

### *Ecotourism Development - A Manual for Conservation Planners and Managers*

- *Volume I - An Introduction to Ecotourism Planning, First and Second Edition*, Drumm, A. and Moore, A., 2002, 2005.
- *Volume II - The Business of Ecotourism Development and Management*, Drumm, A., et al. 2004.

### *Ecotourism Impacts Monitoring: A Review of Methodologies and Recommendations for Developing Monitoring Programs in Latin America*, Rome, A., 1999.

### *The Conservation Finance Guide: Tourism-Based User Fees*, The Conservation Finance Alliance, 2004.

### *Tourism Impact Monitoring and Management in Protected Areas - Workshop CD*, Drumm, A., Jim Wurz, Abi Rome, et al., 2003.

### *Sustainable Finance for Protected Areas: Tourism Entrance Fees at the Eduardo Avaroa Reserve, Bolivia*, Drumm, A., 2004.

### *Sustainable Finance for Protected Areas: Visitor Donations at the Islas del Golfo Reserve, Mexico*, Drumm, A., Terborgh, J., 2005.

### *Visitor Use Fees and Concession Systems in Protected Areas: Galapagos National Park Case Study*, Silvia P. Benitez, 2001.

### *Visitor Use Fees in Protected Areas: Synthesis of the North American, Costa Rican and Belizean Experience*, Brown, C.R., 2001.

# LESSONS LEARNED FROM THE ECOTOURISM PROJECT IN OYACACHI, CAYAMBE-COCA ENVIRONMENTAL RESERVE, CONDOR BIO-RESERVE, ECUADOR

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## SUMMARY

This paper describes the activities and achievements of an ecotourism project in the Oyacachi Thermal Waters Complex, which is part of the Cayambe-Coca Reserve in Ecuador. In 2000, the community of Oyacachi developed a management plan as a tool for promoting development without damaging natural resources. The plan included a feasibility study, a tourism plan, an architectural plan, and a capacity-building and training program. The feasibility study revealed that one of the greatest weaknesses of the project was its lack of a reinvestment strategy, which threatened the sustainability of the ecotourism initiative. That assessment led to the drafting of a business plan for the financial and programmatic management of the ecotourism initiative. The project established new ecotourism products such as guided walks and visits to the Maucallacta ruins, provided training to the Ecotourism Committee, updated the operations manual, published dissemination materials, arranged with a tour operator to promote the location, designed and set up signposts in the tourism site and along the trails, and built a small structure at the entrance to the hot springs to encourage visitors to the pools to purchase other products in addition to visiting the hot springs. In future, the plan is to expand the tourism operation to new market segments, establish a closer rapport with organizations that provide training and technical assistance, and identify new sources of funding to support the consolidation of the ecotourism project and promote the participation of a larger number of local stakeholders.

## 1. DESCRIPTION OF THE CASE STUDY

The Kichwa (or Quechua) community of Oyacachi is located at an altitude of 3,200 meters above sea level in the Eastern spurs of the Andes, in the province of Napo, Ecuador. The territory covers 44,600 hectares and is part of the Cayambe-Coca Environmental Reserve (RECA Y). Oyacachi is inhabited by around 100 families totaling about 500 individuals. Livestock and the raising of domestic animals are among the main economic activities. Inhabitants also engage in subsistence agriculture and the production of handicrafts. Since 1997, local stores have been selling basic staples, and some people work in drinking water projects, fish farming, conservation, and tourism.

Since the Thermal Waters Complex in Oyacachi was built in 1999, tourism has developed in an almost spontaneous manner. The sector is based on the recreational and medicinal use of the thermal waters, the scenic landscape, the conservation areas, and local culture.

Ecotourism businesses are mostly community- and family-based, and are seen as a conservation strategy for the territory and particularly the RECA Y, as well as an income-generating activity. The role of ecotourism in the local economy is significant; agriculture is largely aimed at local consumption, and livestock is diminishing in importance.

## 2. PROJECT ACTIVITIES

In 2000, Oyacachi prepared a management plan to promote community development without damaging natural resources. Since 2001, with the support of several organizations, the community has been working to improve some aspects of the plan. The Parks in Peril Program (PIP) at the Condor Bio-Reserve is among the entities that have supported the community in the implementation of its management plan, particularly the ecotourism project. The following activities have been carried out:

1. A feasibility study was carried out on promoting ecotourism in Oyacachi. It included a market study, a financial assessment, a social assessment, and a study on the area's carrying capacity and potential tourist sites.
2. A tourism plan was developed. It identified and evaluated tourist attractions in the area, including scenic routes, and designed and built nature trails.
3. An architectural plan was devised, based on an evaluation of the existing local infrastructure (the Thermal Waters Complex). It led to a proposal to remodel the Complex, and included the design of a lodging area, a restaurant, changing rooms, and other facilities.
4. A capacity-building and training program was devised and implemented that included an assessment of tourism-related training needs in the community, as well as training activities in various other fields.

## 3. PRELIMINARY RESULTS DESIGN AND IMPLEMENTATION OF A REINVESTMENT STRATEGY

One of the greatest weaknesses detected during the strategic planning and economic analysis of ecotourism in the area was the lack of a reinvestment strategy. Only a minimal percentage of the income generated by tourism was being reinvested in the maintenance or improvement of infrastructure and services. This threatened the sustainability of the ecotourism initiative.

The technical team of the Parks in Peril Program, together with the local Ecotourism Committee, proposed an investment strategy that would allocate a percentage of the profits derived from the hot springs to such activities as improving the infrastructure of the Thermal Waters Complex, maintaining the scenic routes, and continuing with the training of the field teams.

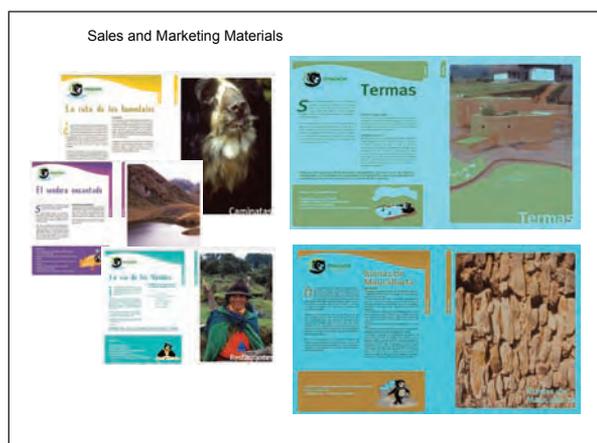
In workshops involving the Ecotourism Committee and local authorities, it was decided to develop a business plan. This document, which was much more ambitious than a simple reinvestment strategy, included the following: (a) the products to be offered by the Ecotourism Committee, (b) a demand analysis based on surveys of foreign tourists in Otavalo and potential national tourists in Quito, (c) an estimate of the costs involved, (d) a marketing strategy and (e) a financial plan. Many of these elements had already been defined by the Ecotourism Committee as part of its PIP Program. However, they were greatly refined and expanded in the Business Plan, which will serve as implementation guidelines for the Committee.

## DEVELOPMENT OF NEW PRODUCTS AND A SALES STRATEGY

The bottleneck that often obstructs the success of many ecotourism projects is the inefficient marketing of the product. To a certain extent, that is what happened in Oyacachi with some of the trails that were designed and built earlier. Products were designed that were not targeted at the tourists that visited the community. Meanwhile, no efforts were made to place those new products in the market to attract the people who might have been interested in them.

In this phase, new products were designed based on a market analysis and financial study (as contained in the Business Plan), increasing the likelihood that marketing would be successful and it would finally be possible to consolidate Oyacachi's "green" image, sell products other than the hot springs, and attract a more upscale economic segment more attuned to conservation and indigenous cultures. The new products were the following:

1. Visits to the Maucallacta Ruins
2. A "Wetlands Trail" around the RECAY lake system.
3. An "Enchanted Walk" to Laguna Encantada ("Enchanted Lagoon").
4. "Los Yumbos Trail" between Oyacachi and El Chaco.



Two sections of the Business Plan outlined the sales plan. The first dealt with promotion (which is discussed in greater detail below in the section on "Project Promotion"); the second contained the marketing strategy. This strategy, which determines how and where sales will be pursued, proposed establishing an alliance with an ecotourism operator to secure a greater inflow of visitors. The Ecotourism Committee has come to a verbal agreement with a Quito-based operator called Tropic. According to the agreement, Tropic must take charge of promoting the new products while the community will handle the local operation. The agreement will be implemented informally over a trial period, after which it will be formalized through a written contract.

## SUPPORT FOR THE CONSOLIDATION OF INFRASTRUCTURE AND SERVICES

Offering appropriate infrastructure and services is critical for any ecotourism project. Even though the Oyacachi initiative had been in operation for several years, many improvements were needed. Since the PIP Program did not have funds to invest in infrastructure, the actions implemented were managed by the Ecotourism Committee, funded by the Municipal Council, and often supported by the community with volunteer labor.

An idea that had always been on the agenda of the Ecotourism Committee and the PIP Program was to set up a small tourism office where the community could offer their products and provide information to visitors. This was finally accomplished and the Committee, together with the Municipal Council, built a small structure at the entrance to the hot springs to attract visitors and encourage them to purchase other products in addition to the hot springs. The office will distribute all the promotional material that has been produced,

such as ecotourism leaflets, brochures, and institutional information packages.

Providing signposts was another priority, particularly to meet the needs of first-time visitors to Oyacachi. With support from the PIP Program, the following signs were designed and set up: three road signs on the Larcachaca-Oyacachi road, a welcome sign, signs providing historical information on the ruins and facts about the hot springs (such as the chemical composition of the water and its health benefits), a sign detailing the rules that visitors to the hot springs must follow, two corporate signs (one for the Tourism Office and another for the Handicrafts Center), as well as a sign along the Maucallacta trail indicating the location of the ruins. These signs complemented the ones set up in the community restaurants and stores.

Another aspect of the project involved the design of a tourist promenade. This was carried out by an architecture student, Paola Meneses, as part of her graduation thesis. The proposal was to build a handicrafts market with a well defined “personality” along the road to the hot springs, using local materials, where handicraft-makers and food sellers could operate. Ms. Meneses also provided technical advice to the hotel owners on how to improve their facilities.

With regard to training, a strategic alliance was established with the Esquel Foundation, which provided the Ecotourism Committee with training based on an interesting approach that always resulted in a concrete product. For example, while learning about planning issues, the Committee updated its mission, vision, and strategy documents. Other more practical courses included cooking and best environmental practices.

Within the framework of the PIP Program, “training in action” was provided to the Ecotourism Committee tour guides along the new trails designed for the hiking products. A team of 14 individuals walked along these trails (Papallacta-Oyacachi, Oyacachi-El Chaco) in the company of an expert on trail tourism who provided them with new skills such as how to attend to tourists in difficult conditions, how to prepare meals en route, how to organize the logistics of the trip, and what type of information to provide to tourists.

## **FOLLOW-UP AND MONITORING SYSTEM**

In an ecotourism project, the implementation of best practices is essential. The Rainforest Alliance’s *Guide for Sustainable Tourism Best Practices*, a guide for small and medium-sized businesses, was incorporated into similar material prepared earlier, and adapted to the needs of the Oyacachi project.

Personalized work was carried out with each of the services associated with the Ecotourism project in order to design and produce operations manuals that would help improve services while providing guidelines for a socially and environmentally responsible operation. The following handbooks were produced:

1. Operations manual for the Oyacachi Ecotourism Committee
2. Operations manual for the tour guides
3. Operations manual for restaurants
4. Operations manual for hotels
5. A brochure on the code of conduct that visitors must adhere to, which will be handed to the tourists when they visit the Tourism Office

## PROJECT PROMOTION

The marketing strategy is very closely linked to the promotion of the project. Although the Oyacachi Ecotourism project had already developed several promotional tools, the Business Plan provided a more coherent framework for how and where to use these, depending on the target group. One example is the Web site, which was modified to provide much more information about the new products as well as about conservation efforts by the community and their partners; its visual design was also improved. It was translated into English in order to attract more foreign tourists, particularly those who rely on the Web to make travel decisions.

In the case of national tourists, the study carried out to devise the Management Plan found that a significant component of the strategy would require printed materials such as brochures, posters, and an information package promoting

the new products and describing the community and its main attractions. In addition, a kind of poster was designed for restaurants and hotels to display the price of their products and services. Finally, but no less important, business cards and stationery were designed and produced for the members of the Ecotourism Committee.

## 4. CURRENT CHALLENGES AND PROPOSED SOLUTIONS

A significant challenge is to expand the tourism operation into new market segments. While establishing an agreement with a tour operator was the main recommendation, the Business Plan also suggested the following actions: (a) promoting the new products at the Oyacachi Tourism Office; (b) disseminating information through an English-language Web site (as described in a previous section); (c) arranging bus rides at least three days a week between Oyacachi and Otavalo; and (d) establishing another alliance with an operator based in Otavalo.

### Oyacachi Web Page to Promote Tourism

The screenshot shows a web page for Oyacachi Ecotourism. At the top left is the logo for OYACACHI RESERVA ECOLÓGICA Cayambe-Coca, featuring a bear's face. Below the logo is a photograph of a traditional stone and thatched-roof house in a rural setting. To the right of the house is a vertical navigation menu with five items: RESTAURANTES RESTAURANTS, TERMAS HOT SPRINGS, ARTESANÍA HANDCRAFTS, RUINAS THE MAUCALLACTA RUINS, and CAMINATAS HIKING. Below the house photo are three text boxes: 'Acerca del oso de anteojos About the bear', 'Acerca de la reserva Cayambe-Coca About the Cayambe-Coca reserve', and '¿Cómo llegar? (MAPA) Map and advices to arrive'. To the right of the house is a map of the area. On the far right, there is a column of text in Spanish and English, with a link to 'Conozca más sobre este proyecto de ecoturismo comunitario' and 'Know more about this community ecotourism program'. Below this text is a photograph of a hiker on a trail, with the caption 'Foto: Héctor Quinchimbla'.

It is important to strengthen the Ecotourism Committee. Closer links should be established with organizations that provide training and technical assistance in order to contribute to ongoing capacity-building and training of the committee's members.

Given that the activities of the Parks in Peril Program in the Condor Bio-reserve are coming to an end, the Ecotourism Committee and the community in general must identify new sources of funding to support the consolidation of the ecotourism project and promote the participation of a larger number of local stakeholders.

## 5. LESSONS LEARNED

The consolidation of the ecotourism project, by formalizing the sale of products through strategic partners, is crucial to improving income generation in the community and compensating for the economic losses caused by the so-called "bear-cattle conflict" (in which Andean bears attack cattle that stray into their territory). It is also essential to strengthen the links between ecotourism and conservation, which are not very solid in practice (Flores, 2007)

Transparent management strengthens participation. From the beginning, when the Ecotourism Group was established by an agreement of the Community Council, the latter has supported the Group's activities.

New ideas and approaches are also required to produce significant change. The people of Oyacachi have realized that for ecotourism to expand there is a need for new products and services.

Another lesson learned involves the distribution of the benefits. In the process of designing the Business Plan and other management tools, it became clear that the larger the number of local players taking part in the ecotourism project, the greater its sustainability.

Oyacachi residents are increasingly aware that promotion is a key factor to expand the ecotourism business. The new products that have been developed recently, together with those existing previously, must be promoted with a clear idea of which market segments are being targeted, and which media should be used for targeting them.

## 6. REFERENCES

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- Flores, S. 2007. *Informe final Proyecto Oyacachi*, EcoCiencia, Quito.

# THE “RUMBO AL DORADO” COMMUNITY TOURISM EXPERIENCE IN THE YANAYACU PUCATE WATERSHED OF THE PACAYA SAMIRIA–IQUITOS NATIONAL RESERVE, PERU

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## SUMMARY

This paper presents the results of the Rumbo al Dorado (RaD) community tourism project in Pacaya-Samiria (RNPS) National Reserve, Peru. The purpose of the project was to lay the foundations for developing ecotourism as an economic supplement to the biodiversity conservation activities carried out by the local population. In order to meet this objective, it was considered necessary to develop tourism management capacity, enhance local infrastructure, and promote tourism operations. In 2001, in coordination with the National Institute for Natural Resources (INRENA), three tourist ledges were built along the Yanayacu Pucate watershed or drainage basin. In addition, associations were established for the implementation of tourism activities. During 2003-2004, a training plan was devised that emphasized basic concepts. A second training module was implemented in 2005, focusing on such aspects as tour guiding, interpreting, and tourism management. In 2006, the priority was to integrate Rumbo al Dorado into the local, regional, national and international tourism markets. Agreements were made with tour operators abroad, bank accounts were opened, and a publicity campaign was launched. Between 2002 and 2007, the project was implemented with the assistance and participation of several NGOs and national financial institutions. In the medium term, the most significant challenges are the management of the operation by the local associations (which already own 90 per cent of the property), greater participation by local communities in tourism activities at the RaD, and greater participation by local, regional and national authorities in community tourism as an economic alternative for the communities and as a mechanism for biodiversity conservation.

## 1. DESCRIPTION OF THE CASE STUDY

The Pacaya Samiria National Reserve (RNPS) is located in the region of Loreto, in Peru's Northeastern Amazon region, and comprises the provinces of Alto Amazonas, Loreto, Ucayali and Requena. It is bordered by the Marañón River to the north and the Ucayali River to the south. The reserve, covering an area of 1,478,790 hectares, was established in 1972 with the aim of protecting biological diversity and managing natural resources for the benefit of the local population. In 1982, its area was expanded to 2,080,000 hectares, covering 6 per cent of the Loreto Region and 1.5 per cent of the national territory.

The RNPS is classified as a Humid Tropical Forest Area, with high temperatures (20.1°C to 33.1°C) and high levels of rainfall (2,000mm to 3,000mm), humidity and evapotranspiration. (INRENA, 2000.) These conditions translate into a great diversity of wildlife: 439 bird species, 102 mammal species, 69 reptile species, 58 amphibians, 256 fish species and 1,026 plant species, both wild and cultivated (Rodríguez *et al.*, 1995). Three watersheds or river basins crisscross the RNPS: Samiria, Pacaya and Yanayacu Pucate. These watersheds are characterized by highly pronounced hydrological cycles or flow variations that determine local ecological dynamics and the population's various economic activities. The RNPS is of major importance for conservation, given its high diversity of wild flora and fauna. The area also has a great wealth of hydro-biological resources, which play an essential role in various ecological processes and provide a source of

food for the local population. The RNPS' value is further enhanced by the large extensions of palm-tree forests that are home to significant populations of peccaries, tapirs, and deer. The reserve also protects a variety of threatened species, including macaws, black caimans (*Melanosucus niger*), manatees, river turtles, otters, pink Amazonian dolphins, and tree species such as Honduras mahogany (*Swietenia macrophylla*), *Carapa*, and ivory-nut palm.

Some of the main threats include overexploitation of fisheries and the extraction of palm trees, turtle eggs, and fine timber. These activities reflect a lack of awareness among the population that lives within the reserve and in the buffer zone regarding the importance of conserving natural resources. It is therefore essential to provide them with other economic alternatives that will allow them to improve their quality of life while managing natural resources more responsibly and conserving the biological diversity of the protected area for their own benefit.

## 2. PROJECT ACTIVITIES

In 2000, with funding from USAID, IRG began implementation of the project "Developing Ecotourism in the Yanayacu Pucate Watershed in the Pacaya-Samiria National Reserve". The purpose of the project was to lay the foundations for the development of ecotourism as an economic supplement to the biodiversity conservation activities carried out by the local population. In order to meet this objective, it was considered necessary to develop tourism management capacity, enhance local infrastructure, and promote tourism operations.

That same year, the Rumbo al Dorado (RaD) Consortium was established with three local associations – COMAPA Veinte de Enero, UPC Yarina and UPC Yacu Tayta – as well as two NGOs: ProNaturaleza and Green Life.

In 2001, in coordination with the National Institute of Natural Resources (INRENA), three tourist lodges were built along the lower, middle, and upper basins of the Yanayacu Pucate River. Environmental impact assessments were carried out and the participating associations were organized to implement tourism activities.

During 2003-2004, efforts focused on strengthening local capabilities. A Medium-Term Training Plan (2 years) was designed in coordination with the RNPS, the Spanish International Cooperation Agency, and the Regional Directorate of Foreign Trade and Tourism (DIRCETUR). The Training Plan concentrated on basic concepts such as tourism in protected areas, tourism awareness, tourism and community development, and information and interpreting services.

In 2005, the second module of the Training Plan was implemented, focusing on the role of guides, interpreting, and tourism management, with the aim of providing specialized services to visitors.

In 2006, the priority was to insert Rumbo al Dorado into the local, regional, national and international tourism markets. The RaD operation was formalized, agreements were reached with tour operators abroad, bank accounts were opened, and publicity activities were carried out. At the same time, infrastructure maintenance and training efforts continued to ensure the quality of the services offered.

Between 2002 and 2007, RaD implemented its activities through the Parks in Peril Program, funded by USAID and The Nature Conservancy. Support was also provided through the Agreement for the Conservation of Tropical Forests, managed by PROFONANPE. In both cases, ProNaturaleza was a strategic partner in the execution and coordination of field activities.

## PENDING MATTERS

1. *A Tourism Operation Plan.* An operational plan already exists, with information about tourism circuits, plans of the visitor lodges, carrying capacity, plans for flora and fauna sampling, and an environmental impact statement. However, it is necessary to update the information in line with current demand and the services that RaD is able to provide.
2. *An Impact Monitoring Plan.* At the start of its operations, RaD produced an Impact Monitoring Plan. Unfortunately, it has not been implemented due to the lack of local capacity and financial resources.
3. *A Management Monitoring Plan.* Every year, RaD members agree upon a work plan. The plan is analyzed at the end of each year to determine whether the goals were met, and to propose strategies with to deal with obstacles encountered along the way. However, it is still necessary to design a long-term monitoring plan.

## CONSTRAINTS

The main constraints included the following:

1. Many local community members lacked I.D. and other documents necessary to obtain corporate status and operate as a business.
2. No advice was available on ways to redistribute accommodations to provide greater comfort while adhering to the construction area limits decreed by local authorities.
3. Lack of commitment by local inhabitants in providing their labor for the construction tasks required in the field.
4. Basic capabilities among the population were inadequate; this meant applying different methodologies and searching for specialized instructors.

## TIMELINE

Initially, control of the project was distributed as follows: 34 per cent ProNaturaleza, 33 per cent Green Life, and 11 per cent for each local association. It was agreed that these percentages would be readjusted over three years, until parity was achieved among all the members (20 per cent each). Since 2005, the local associations have held 90 per cent of the controlling “shares”, and the remaining organizations account for remaining 10 per cent. During the annual meeting in 2005, it was agreed that by 2009 the local associations would have full control of the property.

In the first few years, the focus was on capacity building, assisting the local organizations to become legally constituted, consolidating their tourism operations, and promoting RaD. Much of this work was accomplished, but certain aspects of training and the market insertion of RaD are still pending.

Recent efforts have concentrated on capacity building and the transfer of management (sales and services) to local associations is underway. Promotion and market insertion of Rumbo al Dorado in national and international markets have also been a priority.

## 3. PRELIMINARY RESULTS

### FORMALIZING THE RUMBO AL DORADO INITIATIVE

1. RaD was formally registered with the Regional Tourism Directorate and PromPerú, the highest governmental authorities responsible for regional and national tourism, respectively.
2. Registration and certification of the operation by the Regional Tourism Directorate, the highest regional tourism authority.

3. Agreements were made with travel agencies to promote the product nationally and internationally. For example, *Rumbos Travel* will sell tour packages in the United States, Germany, Spain and Japan.
4. Current accounts were opened in local and foreign currencies.

## INFRASTRUCTURE MAINTENANCE

Although some of the profits were reinvested in maintaining infrastructure and equipment, these were minimal during the first few years of operation. In addition, there was no culture of saving among the local associations, which also limited reinvestment of profits in infrastructure improvements.

During the following years, efforts were not only necessary to increase the number of tourists but also to raise awareness among local associations regarding the importance of reinvesting part of their profits to improve the facilities and services. It is only in the last two years that the local associations have understood the importance of reinvesting in infrastructure and equipment and have set aside part of their profits for that purpose.

## SERVICES

NGOs agreed to provide advice and training to the local associations in order to improve the quality of the services they provide. Training has focused on aspects such as hospitality services, the role of local guides and the provision of food. Awareness has also been raised regarding the importance of ongoing staff training in order to remain competitive in the tourism market, and local associations will need to reinvest part of their profits for this purpose in the future. However, improvements in the services provided have already made it possible to establish partnerships with public and private tourism businesses.

## MANAGEMENT

The RaD “property” has been shared among the local associations and the participating NGOs according to percentages established during the annual meetings. However, the final objective is to transfer control entirely to the local associations. At present, NGOs control 5%, while the local associations together control 90%.

## PROMOTION

1. A PR campaign in the print and audiovisual media, at the regional and national level.
2. Coordination with PromPerú to provide advisory services to local communities, and promote the RNPS as a tourist destination. PromPerú has recognized the quality of the services provided and has offered to include the RNPS within a broader promotional campaign featuring the Peruvian Northeast, and entitled *Iquitos and its surroundings as a tourist destination*.

## FACTORS THAT ENABLED THE PROJECT TO ACHIEVE THE INTENDED RESULTS

1. The presence of a field coordinator in charge of implementing activities jointly with the local associations, enabling the latter to improve their services, promotion, and market insertion, and facilitating communication between the local associations and the board of directors.
2. Increased commitment and awareness among members of the local associations regarding the project’s importance. This enabled the local associations to use their time more effectively and assume greater responsibility for their activities.
3. Training was adapted to local needs and circumstances, thanks to the instructors’ skills in modifying courses in the field and to the

good will of the local associations and their interest in increasing their knowledge in order to provide better services.

#### 4. CURRENT CHALLENGES AND PROPOSED SOLUTIONS

The main challenges in the medium term are the following:

1. *The administration of the “Rumbo al Dorado” operation by local associations.* Each association will select two individuals who will be trained by the coordinator. They will be responsible for handling all operations, from pre-sale (tourism information services) to the production of financial information. At the end of the training process, the associations will select the individual with the greatest capacity to manage RaD. It is expected that this will be achieved in 18 months. However, it is possible that the local associations might not obtain sufficient revenue from tourism to provide training and assume the management of RaD.
2. *Greater participation by the communities in RaD tourism activities.* Previously, communities benefited indirectly from the sale of regional food products, *tagua* wood handicrafts, and laundry and cooking services. Currently, school students are being trained to put on traditional dance shows for tourists, providing additional funding for schools to improve educational facilities, contributing to the recovery of traditional customs, educating children about the benefits of ecotourism and promoting their participation in that activity in the future. Coordination efforts are underway with a variety of local organizations to support this initiative and provide the schools with traditional costumes. However, the local authorities do not appear to be all that interested in

promoting improvements in education or in reviving traditional customs.

3. *Greater participation by local, regional and national authorities in community tourism as an economic alternative for communities and as a mechanism for biodiversity conservation.* After the recent election of a new Municipal Council, whose members appear to be more committed to local development and conservation, meetings were arranged with several of the new local authorities and with the regional president. Arrangements have also been made for them to visit the RaD so that they can promote it in the region.

#### 5. LESSONS LEARNED

##### FEASIBILITY FACTORS

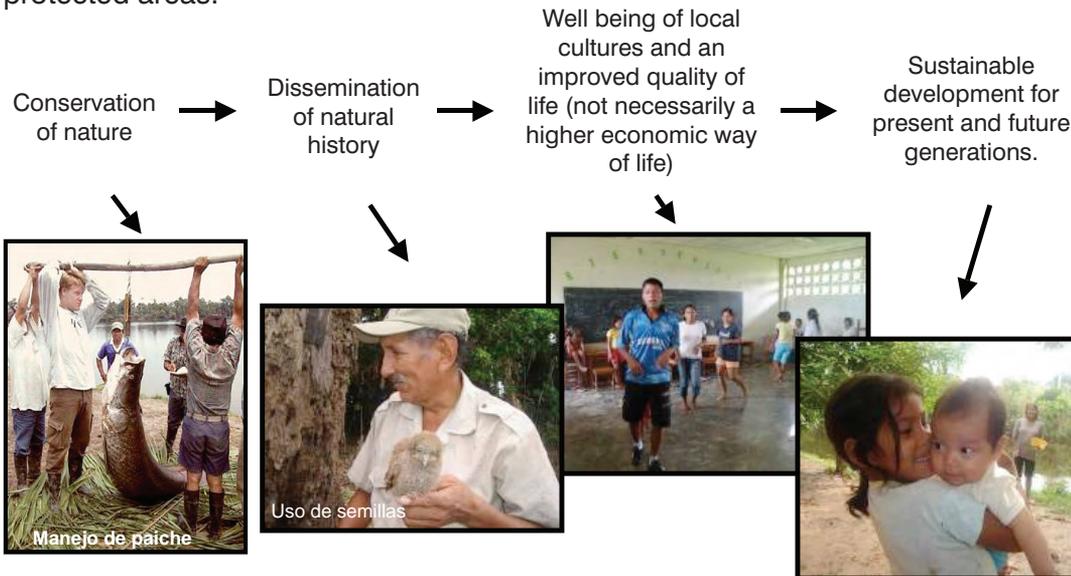
From the outset, the project was based on the following assumptions:

1. **The country would remain politically, economically, and socially stable.**
2. **National policy would continue to focus on the development of sustainable tourism.**
3. **A good relationship with the communities would be maintained.**
4. **No policies or concessions would be promoted that might jeopardize conservation and the ecotourism-oriented management of the RNPS.**
5. **Community conflicts would remain at manageable levels.**

In general, these assumptions have held up, making it possible to implement the project in an efficient, participatory and environmentally viable manner. In legal terms, this was a new experience for the country; no clearly defined mechanism for such an operation had been contemplated. In this regard, RaD has gone through various stages as needs changed over time and legal gaps were filled. At present, since the local associations are the “majority shareholders”, they have requested

## Lessons Learned:

Raising awareness of ecotourism: The local population understands that ecotourism is an additional economic opportunity that significantly contributes to the conservation of natural resources through the effective management of protected areas.



an “operation permit” and not a concession, as was initially agreed upon. These changes have been possible thanks to the capacity of the NGOs that form part of the RaD to coordinate with the central office of the appropriate authorities.

### COMMITMENTS

The participation of various stakeholders as members of RaD has allowed each group to contribute its own experiences and expertise. However, as in all group efforts, it took time, patience, and goodwill to agree on common goals with a view to obtaining the maximum benefit for all members. Fluid communication and the active participation of all parties have been key factors in achieving a good level of understanding among the RaD members, the local communities, and the relevant authorities. Communication improved significantly with the recruitment of the coordinator (responsible for implementing

activities in the field and acting as liaison between local associations and the project’s board of directors).

### SELF-SUFFICIENCY AND LONG-TERM CONTINUITY

Initial support for the project’s implementation was of great importance, since it facilitated joint work in the field with local associations, on a community tourism proposal that would benefit all the parties involved in the RaD. The initial funding made it possible to build operational and financial capabilities among the local associations, as well as to set up legal mechanisms to fill the existing gaps in the legislation.

The financial capacity of the local associations will be strengthened by the increase in tourism activities in the watershed. To support this effort, promotional material such as brochures, press

releases, and a Web site have been produced, and strategic alliances have been forged with the private tourism sector for purposes of marketing the product in international markets.

## **COMMUNICATION NEEDS AND STRATEGIES**

Initially, brochures were produced to publicize the RaD operation. When it was felt that it had the capacity to provide quality services, contacts were made with the media to promote it more widely. Print and audiovisual features have been produced at the regional and national level, and the project is now working with PromPerú on a national campaign featuring the Peruvian Northeast, which includes the RNPS as a tourism destination.

Based on this experience, we would emphasize the need to provide continuous training to ensure that the available services remain competitive in the tourism market. Alliances with private business must also be maintained for the benefit of the local associations. In addition, the local population

must be constantly reminded of the importance of ecotourism as a complementary activity, stressing conservation and the sustainable management of natural resources within a protected area. Finally, we recommend using tools to assess the contribution of ecotourism to conservation, the management of protected areas, the role of local associations (RaD), and the benefits that should accrue to the local population, based on an appropriate costs structure.

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# ECOTOURISM, INDIGENOUS COMMUNITIES AND ENVIRONMENTAL SERVICES: A STUDY OF TWO CASES IN THE ECUADORIAN AMAZON: THE ACHUAR AND THE HUAORANI

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## SUMMARY

This paper presents the cases of the Achuar and the Huaorani nations, two indigenous communities in Ecuador that have used ecotourism as a mechanism to obtain the funds needed to cover their present needs, as an outcome of their insertion into the market economy. The Huaorani case reflects the experience of community-based tourism in an alliance between four Huaorani communities settled along the banks of the Shiripuno River and a private tour operator (Tropic Journeys in Nature), the builder and owner of the Huao Lodge. Construction of the infrastructure took several years and included efforts to establish suitable conditions for the ecotourism operation, organize the communities involved, create a legal framework, train personnel and promote the area as a tourist destination. All the studies and project processes were carried out in a participatory manner with the Huaorani communities. The summary of the Achuar case describes the experience of one community in establishing a lodge with the tourism firm Canodros S.A., as a strategy for conservation and development. The lodge has space for 38 guests, has received several mentions and international awards, and has adopted a strict social code to minimize the negative impacts of tourism. This alliance between an indigenous organization and a private company has produced significant outcomes through the implementation of an economic activity as a mechanism for sound natural resource management and for the financial sustainability of the organization. Although the financial contributions to the families involved in tourism are low in absolute terms, the families themselves consider them as major benefits to their economy. These benefits translate into incentives for conservation, demonstrating that tourism is a valid compensation mechanism for environmental services for communities in the Amazon region.

## 1. DESCRIPTION OF THE CASE STUDY

Most of the indigenous groups in the Ecuadorian Amazon possess large territories with high biodiversity, capable of providing different environmental services. However, traditional economies, lack of technical capacity in the indigenous organizations and internal politics make the effective implementation of large-scale environmental service compensation programs difficult. Community-based tourism, despite its operational limitations (e.g. accessibility and profitability, etc.), could provide a compensation mechanism for environmental services.

Two case studies illustrate this point: one in the Achuar nation and the other in the Huaorani nation. The first population inhabits a territory of 787,000 hectares in the southern Amazon region of Ecuador, where potential threats include oil exploitation and cattle-ranching. The second group has a territory of 1,000,000 hectares in the central Amazon region of Ecuador, where the main threats include logging and oil exploitation.

Agnes Kiss (Kiss 2004) argues that the contribution of community-based tourism to the development of local economies and conservation is constrained by factors such as the small number of people involved, low earnings, questionable benefits to biodiversity, limited commercial success as well as the competitive and specialized nature of tourism. She concludes that such initiatives have resulted in small contributions that have not significantly improved the quality of life of the host communities (which continue to

be dependent on external support for long periods or, in many cases, for an indefinite period), and have not achieved conservation objectives.

Kiss’ conclusions are perfectly valid from a market economy point of view. Given the lack of connectivity between Amazonian communities for marketing other products (such as cacao, peanuts or annatto), economic opportunities for human groups in the Amazon are limited. Therefore, what is the alternative? And if tourism is part of the solution, what is its impact on conservation and poverty?

Before attempting to respond to these questions an important concept must be introduced: that of the “Gift Economy”. This economy is based on the deferred exchange of goods. The essence of the gift economy (which maintains a flow of goods between giver and receiver), is the obligation to reciprocate (Gauss 1990, Smith & Wray 1999).

By creating a perpetual cycle of exchange, the gift economy unites all members of the community.

There is a dichotomy between gift and market economies, in the sense that a market economy can undermine the foundations of a community structure. Some of the differences between these economies are shown in the table below:

In a gift economy, quality of life is not measured in terms of money or the accumulation of tangible goods. Access to education (community factor), family (individual factor), health (community factor) and access to natural resources (community factor) are the factors associated with a good life by the communities. However, the Amazon communities are becoming increasingly integrated into the market economy, which creates new needs including school supplies for children, western clothing, as well as flights and medicines in emergencies.

Gift economy	Market economy
Non-monetary	Monetary
Favors social organization	Favors individualism
Economy for the common good	Economy for individual good
Strengthens social cohesion	Reduces social cohesion
Unlimited access to resources	Limited access to resources
Patrimony is a common good	Patrimony is exploited for individual benefit
Promotes dispersed settlements	Promotes settlement centers
Has mechanisms to avoid wealth accumulation	Promotes the accumulation of wealth

## 2. PROJECT ACTIVITIES

### HUAORANI CASE

The Huaorani case presents the experience of community-based tourism through an alliance between four Huaorani communities, involving 22 families settled along the Shiripuno River and a private tour operator (*Tropic Journeys in Nature*), the builder and owner of the *Huao Lodge*. The lodge is an ecotourism product with a gender-based approach that operates in Huaorani territory. Infrastructure construction took several years and included efforts to establish conditions for the ecotourism operation, organize the communities involved, create a legal framework, train personnel and promote the area as a tourist destination. All the studies and project processes were carried out in a participatory manner with the Huaorani communities. The implementation process received support from the CAIMAN Project (Conservation in Managed Indigenous Areas), an initiative of the United States Agency for International Development (USAID).

Although the average monthly income in a Huaorani family is US \$ 31.35, 100% of the Huaorani families consider that their quality of life is very good. It should be noted that in Ecuador the minimum living wage in the private sector is US\$ 170/month<sup>1</sup>, or 542% more than the average monthly income in the communities studied. However, monetary income should not be regarded as an indicator of poverty or a limiting factor for a good life. Aspects such as self-reliance, small populations living in extensive territories, access to housing and non-traditional education and a gift economy prevent the Huaorani communities from being characterized as marginal. The main sources of economic income for the Huaorani are tourism, handicraft sales and temporary jobs in public institutions. These activities are classified as

occasional and the Huaorani do not consider them as essential for a good life.

For the Huaorani, the five determinant factors for a good life are (in order of importance): 1) education for children, 2) time spent with the family, 3) health, 4) being surrounded by nature, having a forest, and 5) having food. If these indicators constitute good living conditions among the Huaorani communities, what need is there to introduce a market economy model (community-based tourism) into the Huaorani system? The answer was provided mainly by the women. One woman stated that “in reality, we do not need money for ourselves because we are content with our lives, but we are concerned about the health and education of our children.” Another woman mentioned that “the children die here because there are no medicines or nurses and we don’t have money for emergencies.” What the study shows is that even though tourism generates small contributions—as Kiss well argues, these small contributions can be very significant for Amazon communities that depend on gift economies. Although US\$ 30 per month may appear to be an insignificant sum for a family from a market economy point of view, for a Huaorani family it may represent a 100% increase in income.

The Huaorani depend on hunting for their subsistence and are capable of recognizing commonly hunted species, those with declining populations and those that are important for tourism. The Huaorani also recognize that certain species must be conserved. The main reason for this belief among the communities is that these species attract tourists (placing a greater value on some species as tourist attractions, than for their hunting value) and because their conservation is important for future generations. In hunting practices, there is a direct relationship between tourism and the conservation of flagship species. For example, tapirs are rarely hunted and their

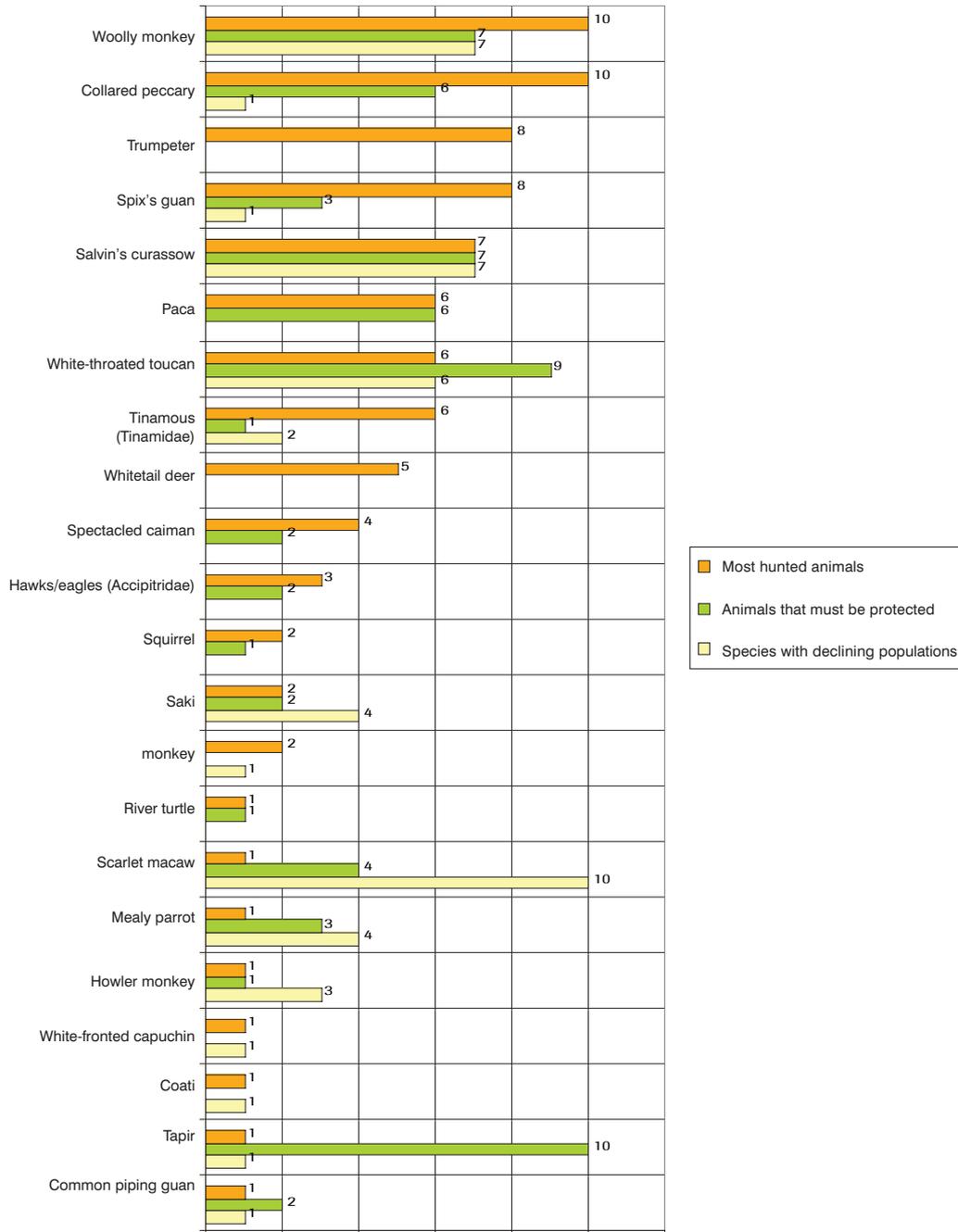
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1 Minimum living wage in private business as of March 2007 according to the Central Bank of Ecuador. ([www.bce.fin.ec](http://www.bce.fin.ec)).

populations do not appear to be declining. However, the Huaorani believe they deserve to be conserved as a tourist attraction. Deer and trumpeters (birds) are often hunted and because

they have nocturnal habits they do not deserve (in the opinion of the Huaorani) to be conserved since tourists do not see them and therefore they are not considered attractions or flagship species.

### Hunting and conservation relationships -frequency of responses-



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## ACHUAR CASE

The Achuar inhabit a territory of 787,000 hectares of well-preserved wet tropical forest divided into nine Associations: five in Morona Santiago (*Pumpuentsa, Wampuik, Saapapentsa, Wichim* and *Tsunkintsa*) and four in Pastaza (*Churuya, Makusar*; Asociación de Centros Achuar de Pastaza-ACAP and Asociación Achuar de Copataza-AAC). These associations include 64 population centers or communities. The current Achuar population is approximately 6,000. The Achuar are essentially itinerant hunters and subsistence farmers and they are relatively self-sufficient. However, their rapid integration into the national economy, their external cultural requirements (education, dress, etc.) and urgent needs (health, medical emergencies), have created a need for financial resources.

In 1995, a lodge was established by the Achuar community and the Canodros S.A. tourism company as a strategy for conservation and development. The lodge has capacity for 38 guests, has received several international mentions and awards and is equipped with appropriate systems for minimizing environmental impacts (solar energy, sewage treatment, low emission motors). A strict social code has been established to minimize the negative impacts of tourism, including a ban on taking photographs in the communities, giving money, or making visits without the consent of the Achuar. So far, this alliance between the indigenous organization and a private firm has produced significant outcomes, resulting from the implementation of an economic activity as a mechanism for sound natural resource management and for the financial sustainability of the organization.

The contributions provided by the private firm (Canodros SA) to the Achuar communities have become incentives for conserving their territory, demonstrating the importance of tourism as a compensation mechanism for environmental services, in the face of threats from timber and

oil exploitation that are common in the area. A transfer plan is currently being implemented with a view to transferring all equipment and technical capacities entirely to the Achuar communities.

## MANAGEMENT MODEL

The management model used prior to the start of the transfer plan involved the participation of two actors: the Achuar communities, represented by the grassroots organization NAE (Nacionalidad Achuar del Ecuador), and Canodros S.A.

The Nacionalidad Achuar del Ecuador (NAE) is an indigenous grassroots organization. Its main objectives include a) defending and valuing the culture, language and customs of the Achuar people of Ecuador, b) promoting and advising their internal associations and consolidating all the centers located within the Ecuadorian Amazon, defending territorial integrity, c) planning and coordinating the execution of social development projects and programs with governmental, private, national and international institutions.

Canodros S.A. is a private company engaged in the development of sustainable tourism in areas of natural and cultural interest. At present it has operations in the Galapagos Archipelago and in the Ecuadorian Amazon (the latter through the project with the Achuar). This tourism firm has provided capital for building the lodge, technical services (architects, consultants), management operations and the marketing of the destination. Under this model, the Achuar community contributed human resources (personnel for different areas of the lodge—guides, drivers, waiters) and cultural resources through travelers interacting with the communities. At the beginning of the process, the community contributed materials and labor to build the lodge. The model has been functioning for more than 10 years and has reached the transfer stage, which should be completed by the beginning of 2008.

## COMPENSATION FOR ENVIRONMENTAL SERVICES

The experience in these communities shows the importance of tourism as a compensation mechanism for environmental services. These conservation efforts have prospered thanks to the contributions (incentives) that the private firm provides to NAE and the communities involved. Between 1996 and 2005 the operation managed by Canodros has generated US\$ 1,225,724 in direct contributions to the local communities and to the NAE. This economic contribution has focused on rental paid for the lodge, payment of entrance fees for visits to the Achuar communities, purchases of local products (food), payments to Achuar personnel who work in the lodge, flights to and from the community, donations and others. Details of the amounts generated by the operation are presented, by category, in the following table.

## TRANSFER PLAN

The agreements made between the NAE and the tourism firm, Canodros, stipulate that full responsibility for the administration of the tourism operation will be transferred to the Achuar organization at the beginning of 2008.

Aware of the challenges that managing a complex tourism operation represents for the Achuar organization, a transfer plan was devised to facilitate the successful handover of the tourism facility to the Achuar people. In general terms, the transfer aims to give the Achuar a legally viable financial enterprise, with equipment in good condition. It also plans to implement visitor monitoring systems, zoning plans and the dissemination of the entire process with the Achuar communities involved and other actors.

	<b>Period 1996-2004</b>	<b>Period 2005</b>
Leasing	\$293,856	\$41,000
Visitor entrance fees to communities	\$9,016	\$1,322
Sale of local products	\$43,240	\$3,563
Handicrafts	\$16,200	\$349
Services Provided	\$116,400	\$2,133
Achuar personnel	\$456,300	\$69,426
Flights for communities	\$46,800	
Miscellaneous	\$18,000	
Entrance fees USD 10.00/pax	\$ 83,160	\$10,260
Donations to communities		\$2,753
Transfer Transport and Mobilization		\$3,331
Transfer Lodging and Food		\$7,561
Transfer Professional Services		\$724
Transfer Training		
Transfer Miscellaneous		
<b>SUB-TOTALS</b>	<b>\$1,082,972</b>	<b>\$142,822</b>
<b>TOTAL 1996-2005 (Cut-off date 31 October 2005)</b>	<b>\$ 1,225,794</b>	

Contributions generated by Canodros for the NAE and Achuar communities.  
Source: Canodros 2006

### 3. PRELIMINARY RESULTS

1. Despite its low profitability, tourism can be an effective compensation mechanism for environmental services. The generation of contributions and benefits for the host communities in the Amazon region provides incentives for natural and cultural resource conservation and prevents the development of high-impact extractive activities such as logging and oil exploitation.
2. The efficacy of this model is also due to the lack of other alternatives for indigenous communities inhabiting large, geographically isolated territories with high biodiversity.
3. Experience has shown that, except for highly extractive, destructive or easily accessible activities, economic opportunities are very limited in Amazon communities, and therefore community-based ecotourism is one of the most commonly used options.
4. Although minimal in quantitative terms, the financial contributions received by families involved in tourism are considered as major economic benefits by the families themselves. These benefits translate into incentives for conservation, confirming that tourism is a valid compensation mechanism for environmental services in Amazon communities.
5. Despite opportunities for private firms to participate in the model of community-based ecotourism management, companies seldom do so, due to the lack of incentives for investing in the Amazon region. This includes lack of planning to ensure the financial sustainability of business ventures, and uncertainty regarding the efficiency of Amazon indigenous people associations as part of an economic model.

6. The communities within the lodge's zone of influence are creating new businesses that are integrated into the ecotourism initiative, generating new income for the communities and having a multiplier effect on resource conservation and economic development.

### 4. CURRENT CHALLENGES AND PROPOSED SOLUTIONS

A potential model that offers an opportunity for the efficient development of community-based ecotourism could be an association between the private sector, indigenous groups and NGOs.

In this association, the three stakeholders would assume different roles:

Private firms would contribute to the development of the product including 1) capital investment, 2) operation of the destination, 3) product and service quality control, 4) standards of quality, 5) staff training, especially in practical aspects such as interpretive guide services and quality customer service, and 6) sales and marketing of the product.

The community would contribute 1) natural resources, including the basic attractions of the tourism system, 2) territory for the location of the operation, 3) human resources, either as service providers or under permanent contract, 4) handicrafts and foods made with locally generated products, and 5) during the implementation phases, the community can provide raw materials and labor for the construction of infrastructure.

NGOs would contribute 1) assistance in reducing tensions between communities and private firms stemming from the opposite functions of their economies (gift and market), 2) capital investments (loans or donations), since some NGOs have a greater financial capacity than the companies or they are able to raise the necessary funds, 3) implementation of environmental monitoring, zoning and visitor management

methodologies, and 4) organization and creation of micro-enterprises that operate within the business producing complementary goods (food products, timber, handicrafts, etc.).

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# MUNICIPAL REGIONAL PARKS: A MODEL OF SUSTAINABLE COMMUNITY DEVELOPMENT IMPLEMENTED IN THE MULTIPLE-USES RESERVE OF THE LAKE ATITLÁN WATERSHED, IN SOLOLÁ, GUATEMALA.

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## SUMMARY

This study describes the activities, achievements and challenges encountered in the design and implementation of a system of Municipal Regional Parks (MRPs) in the watershed of Lake Atitlán, in Guatemala. The basic idea is that the Municipal Regional Parks system should evolve as a joint initiative and to achieve this, special characteristics have been identified in each of these areas for developing ecotourism products that complement each other. It is hoped that over the next five years the number of Municipal Regional Parks will be doubled to 10. The management process in these areas includes the following steps: a) local-level declaration of the municipal forestlands as a conservation area, b), ecological and social characterization, c) preparation of a management plan, d) creation of the Co-Management Council (CMC), e) design and implementation of the ecotourism project, e) marketing plan and f) registration of the area in the Forestry Incentives Program PINFOR of the National Forestry Institute (INAB). The most successful measure, in terms of ensuring the sustainability of the areas managed by regional governments, has been the support provided to the municipalities in administering forestry incentives to enable them to recruit staff for the management of the areas. These incentives have opened up a window of time for consolidating the ecotourism programs, which are envisaged as a way to guarantee the sustainability of the System's conservation. In terms of governance, an important result has been the establishment of Co-Management Councils comprising local government representatives and members of civil society, which are responsible for implementing policies linked to the conservation and valuation of natural and cultural resources.

## 1. DESCRIPTION OF THE CASE STUDY

Located in the western highlands of Guatemala, the watershed of Lake Atitlán has been studied by numerous geologists since the end of the nineteenth century. According to scientific theory, an ultra-plinian volcanic explosion occurred approximately 85,000 years ago and was so violent that it probably wiped out all life forms within a radius of hundreds of kilometers. The explosion of "Chocoyos", as it is known locally, expelled around 150 cubic kilometers of pulverized magma or ash; even today, traces of this may be found from southern Mexico to Panama. After the magma chamber had been emptied, the roof of the great cavern collapsed, leaving an enormous circular cavity of approximately 18 kilometers in diameter which, with the passage of time, was gradually filled by the rivers Quiskab and Panajachel, thereby forming Lake Atitlán. Subsequently, three new volcanoes emerged from the ancient crater: San Pedro, Tolimán and Atitlán.

The volcanoes of the Atitlán watershed now contain much of the diversity that is unique to Guatemala. Here we find dramatic landscapes, water, forests and volcanic peaks; xeric flora (dry regions) and leafy forests; minute orchids and century-old oak trees; threatened mammals such as the puma and the shrew; endangered birds such as the horned guan, the quetzal (Guatemala's national symbol) and humming birds, as well as reptiles and amphibians unique to these lands.

In socio-cultural terms, Atitlán is a multicultural mix, with sacred pre-Hispanic sites, indigenous villages and tourism centers offering modern hotels. It is an area of contrasts - from people living in conditions of extreme poverty to others with luxury *chalets*. Some lands are highly productive, producing crops as varied as corn, beans, coffee, tea, quinoa and macadamia while other lands are completely exhausted. The region's enormous biological diversity, which is of global and national importance, is now under major pressure due to the economic situation, population growth and cultural changes (Dix *et al.* 2003).

Efforts to conserve the watershed of Lake Atitlán began in 1955 when the area was declared a "National Park". In 1997, after several decades of neglect caused in part by the internal armed conflict, it was re-classified as a "Multiple-Uses Protected Area" and its management was delegated to the National Council for Protected Areas (CONAP). This institution established itself in the area and adopted a management approach characterized by close operational ties with the municipal authorities and a tendency to delegate the administration of the protected area to the local government. In this context, the Parks in Peril (PiP) project was launched in 2000, with the aim of promoting the conservation of the region's biodiversity by strengthening municipal, community and private efforts to manage natural resources.

The work of the NGO "Vivamos Mejor" as a partner of *The Nature Conservancy* in Atitlán has consisted of strengthening local capacities towards building a system of Municipal Regional Parks, where local governments assume responsibility for the sustainable management of natural resources in their municipalities.

## 2. PROJECT ACTIVITIES

The implementation of the Municipal Regional Parks System has been based on a methodology applied with slight variations in five municipalities of the Atitlán Watershed: San Pedro la Laguna,

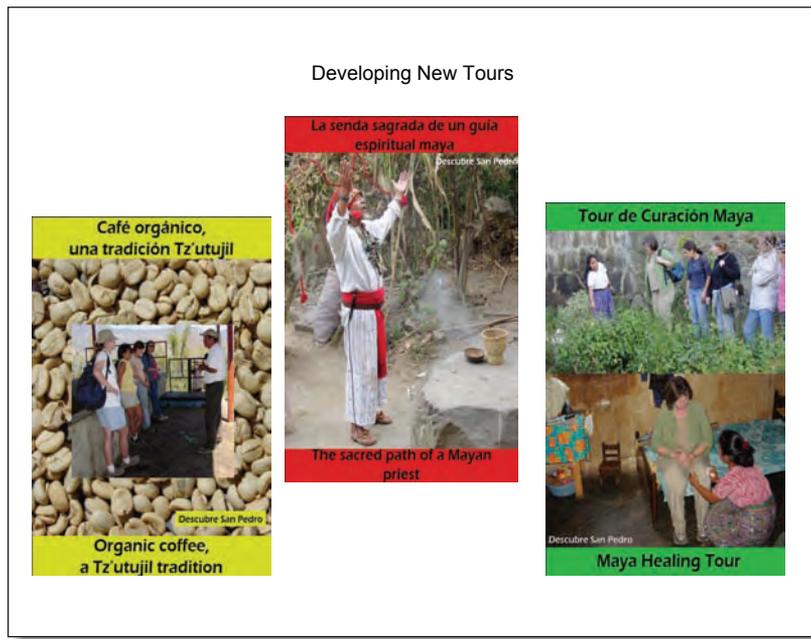
San Marcos la Laguna, Santa Clara la Laguna, San Juan la Laguna and San Lucas Tolimán, in the department of Sololá.

This methodology relies on the efforts and interest of local authorities in planning land use in their municipalities. To illustrate this process, the case of the municipality of San Pedro the Laguna is described below.

1. Municipal-level declaration of municipal forestlands as a conservation area.
2. Ecological and social characterization.
3. Management Plan (natural resources, public use and local culture).
4. Municipal policy on "Conservation of Natural and Cultural Resources and their use for Ecotourism purposes".
5. Creation of the Co-Management Council ("Consejo *Chajínel*").
6. Design and implementation of the "Discover San Pedro" ecotourism project
  - a. Volcán San Pedro Ecological Park.
  - b. *Tzunun* Ya Cultural Community Center.
  - c. Thematic Community Tours:
    - i. Organic Coffee.
    - ii. Traditional Healthcare
    - iii. Maya Spirituality
7. Marketing plan
8. Process to register the municipality in the Forestry Incentives Program (PINFOR) of the National Forestry Institute (INAB).

This process has been under way for five years now, and has received support from numerous national and international organizations during its implementation. The forestry incentive has been adjudicated for the next 10 years. The ecotourism project is beginning to operate in a more integrated way and fits in well with the municipality's local tourism dynamic. The local economy revolves around coffee production and tourism. The "Discover San Pedro" initiative is the municipality's main tourism attraction and promotes the development of community tourism services.

### 3. PRELIMINARY RESULTS



The preliminary results of the initiative have been satisfactory, given the social, economic and environmental characteristics of the Lake Atitlán watershed. The system of Municipal Regional Parks is the most efficient way of managing natural resources at the departmental level. In the context of the land-use planning efforts currently under way, there is a proposal to expand the MRP system in the department.

The basic idea is to promote the System of Municipal Regional Parks in the watershed of Lake Atitlán in an integrated way and, to accomplish this objective, special features have been identified in each of the areas with a view to developing complementary ecotourism products. The plan is to double the number of Municipal Regional Parks to 10 over the next five years, and to accomplish this it will be necessary to create a Community Tourism Network in Atitlán to link the areas together. “*Vivamos Mejor*” is currently working to establish a tourism board to support marketing efforts at regional and national level.

The main obstacles to making this project operational, both at the municipal and inter-municipal levels, are of a political character, with competition at the municipal and departmental levels to gain the leadership of the political parties for re-election purposes or for nomination to other public positions. In some municipalities there are ancestral conflicts over undefined territorial boundaries. It is also necessary to strengthen CONAP at the regional level and improve coordination at the municipal level to ensure effective and efficient environmental management.

With regard to the valuation of environmental services it is considered very important to take advantage of the forestry incentives program, PINFOR, thereby allowing a reasonable period of time to consolidate the ecotourism programs, which are envisaged as the means to sustain the conservation of the MRP system.

In economic terms, the municipal coffers have benefited from the increased revenue generated from the sale of services, thereby changing perceptions of the value of natural resources. In some cases, associations have been formed to manage solid wastes, prompted by the development of tourism in the municipalities.

With regard to governance, one important result has been the establishment of Co-Management Councils made up of local government and civil society representatives, responsible for developing policies linked to the conservation and valuation of natural and cultural resources.

One of the key factors in the successful implementation of the System of Municipal Regional Parks has been the development of “models” or “pilot projects”, which have set an example for other projects to follow.



#### 4. PRESENT CHALLENGES AND PROPOSED SOLUTIONS

Lake Atitlán and its surrounding communities constitute a major tourism attraction because of their natural beauty, landscape and culture. However, despite being second most visited tourism site in Guatemala, the area is also the fourth poorest department in the country. This means that the benefits of tourism are not reaching the communities that live in there.

Tourism has developed in a spontaneous, empirical and somewhat piecemeal manner, due to a lack of planning. Unplanned land use in the Atitlán watershed area has prevented the territories (municipalities) involved from identifying their tourism specificities in order to complement each other. As a result, the type of tourism destination that has emerged

in the watershed is not based on an overall vision of territory, but rather on facilities and services that operate in isolation and under specific interests. The main challenge lies in consolidating local tourism systems, integrating these into a Tourism Development Plan for the Atitlán Watershed, and developing a Community Tourism Network to ensure that tourism achieves the desired effect of helping to combat poverty in the department of Sololá. In the international sphere there is much talk about responsible tourism and in Latin America there are interesting experiences - for example, in southern Mexico and Costa Rica - of Community Tourism Networks that work successfully. In Atitlán a Community Tourism Network is currently being developed. However, ecotourism projects must achieve minimum standards of quality in order to establish a homogeneous and complementary system.

## 5. LESSONS LEARNED

The project required the participation of a multidisciplinary team for its implementation. The weakest and most vulnerable institutional link in the process was community organization, due to its instability and the political and social dynamics. In this context, the Co-Management Councils have played a crucial role in the development of the Municipal Regional Parks.

Given the area's characteristics, ecotourism is envisaged as the most effective way to ensure the sustainability of conservation efforts in the Municipal Regional Parks. This development process requires the participation of civil society in coordination with the local authorities.

The community groups that showed greatest resistance to the development of the Municipal Regional Parks, in relation to ecotourism, were those who benefited directly from these areas without being subject to any regulation on the part of the local authorities. The project required them to make some changes in the way they carry out their activities, especially some groups of "guides" who refused to receive training courses to improve their performance. In many cases these

individuals lacked even the most basic level of education required to receive training.

The most successful measure, in terms of sustainability, has been the support provided to the municipalities in administering the forestry incentives, enabling them to assume responsibility for hiring the personnel to manage the protected areas. However, with changes in municipal authorities it will be necessary to accompany the transition period and carry out a social audit to ensure the transparent use of investment funds.

In terms of communication, it was often necessary to clarify the project's objectives during the implementation phase, since political opponents tended to criticize and distort the information, thereby creating mistrust among the population. In some cases the media was used to respond to people's concerns, including local radio or television, and on other occasions traditional town meetings ("cabildos abiertos") were held.

## 6. REFERENCES

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# THREE CASE STUDIES OF COMMUNITY-BASED ECOTOURISM: AMISTAD-BOCAS DEL TORO, COSTA RICA; ATITLAN VOLCANOES, GUATEMALA; AND PACAYA-SAMIRIA NATIONAL RESERVE, PERU

Holly M. Jones, EplerWood International

As a part of the process of identifying lessons learned from the PiP program, the consulting firm EplerWood International was retained to produce the following case studies about three of the program sites: Amistad-Bocas del Toro, Costa Rica; Atitlan Volcanoes, Guatemala; and Pacaya-Samiria National Reserve, Peru. Based on telephone interviews with project managers, the cases focused on major accomplishments, programmatic successes and lessons learned.

## Site Description

Located in the south-central region of Costa Rica and the north-western sector of Panama, the binational site of Amistad-Bocas del Toro is one of the region's largest expanses of virgin forest. This region is highly regarded for its unique biodiversity, and in 1982 the United Nations Educational, Scientific, and Cultural Organization (UNESCO) declared the area as the Amistad International Biosphere Reserve. The Reserve encompasses approximately 1.24 million acres with about 584 thousand hectares in Costa Rica and 655 thousand hectares in Panama. Just one year after declaring the region a biosphere reserve, in 1983 UNESCO recognized Amistad as a new World Heritage Site.

The PiP project area is located primarily within the highland Talamanca Montane ecoregion, and some buffer zone areas that extend into the Isthmian-Atlantic and Isthmian Pacific Moist Forest ecoregions. The Amistad mountain chain includes the highest peaks in both countries: the Cerro Chirripó in Costa Rica at 3,819 meters above sea level, and Volcán Barú in Panama at 3,475 meters. The borders of the Parks in Peril Amistad-Bocas del Toro site are within the borders of the Amistad Biosphere Reserve, which includes the La Amistad International Park (Parque Internacional La Amistad, PILA), and several other protected areas and indigenous reserves in both Costa Rica and Panama. The PiP project concentrated mainly on the continental areas of the Amistad Biosphere Reserve, focusing

## A. Amistad-Bocas del Toro

Country: Costa Rica & Panama

Project Cycle: October 2002- 2007

NGO

Partner: Costa Rica: National Institute for Biodiversity (INBio)  
Panama: Fundación para el Desarrollo Integral del Corregimiento (FUNDICCEP)  
Asociación ANAI  
Fundación Cuencas de Limón (FCL)

Government

Agency: Costa Rica: Sistema Nacional de Áreas Protegidas (SINAC)  
Panama: Autoridad Nacional del Ambiente (ANAM)

Interviewee: Felipe Carazo, La Amistad Project Manager

on the mitigation of threats affecting conservation targets in the mid- to high-elevation areas (above 1000 meters of altitude). The approach was to complement with the PROARCA project, which aimed to mitigate threats affecting conservation targets located in the lowlands (below 1000 meters) and marine and coastal areas.

## Overview

The Amistad site is uniquely characterized by the diverse components that comprise the site. Costa Rica and Panama both encompass two geographic sectors, the Pacific and the Caribbean, as well as distinct campesino and indigenous groups. As demonstrated here, many of the tourism developments in the Amistad site hinge on learning from past experiences to guide present programs and plan those of the future. This is well illustrated by the execution of multi-region carrying capacity assessments. The PiP Amistad team has also taken the lead in promoting community based tourism through their capacity building and educational programs. Through their work in Amistad, they have helped community based groups by providing structural assistance to form locally based networks. A comprehensive interview with Amistad PiP Project Manager, Felipe Carazo, shed a great deal of light on these topics.

## KEY ACCOMPLISHMENTS

### Site Assessment

The Amistad national park system, due to its wide-ranging geographical location, presents a variety of unique ecosystems and natural resources that are very popular with tourists;

consequently the number of visitors to the park has been increasing significantly in recent years. Since the park system aims to balance the influx of tourist traffic with the sensitivity of the natural environment, a program to measure the effective carrying capacities of the parks was undertaken. Uncontrolled tourism could lead to the degradation of the parks, resulting in the loss of the biodiversity and cultural aspects of these tourist attractions.

The threat of uncontrolled tourism was already evident in Chirripo National Park, as well as in Amistad International Park, known in Spanish as “PILA” (Parque Internacional de La Amistad). The carrying capacity assessments followed a methodology developed by Miguel Cifuentes, of WWF-CATIE<sup>3</sup>, which incorporates Limits of Acceptable Change, a framework for establishing appropriate resource and social conditions in recreation settings<sup>4</sup>. While the assessment in PILA followed a preventive approach and surveyed five regional sites, the carrying capacity assessment for Chirripó followed a corrective approach and assessed eight sites. The area was already heavily visited, and one of the objectives of the study was to offset the negative impact already being felt.

The conclusions of these site assessments identified the major limiting factors of each regional site. They also produced targeted recommendations on how to better manage the impact of the tourists, such as encouraging specific types of low-impact tourism, educating the tourists on proper environmental behavior, and improving tourist services overall.

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3 WWF-CATIE: World Wildlife Fund in collaboration with the Agricultural Center of Tropical Investigation and Teaching (CATIE)

4 LAC was developed in response to the need of managers for a means of coping with increasing demands on recreational areas. LAC also represents a reformulation of the recreational carrying capacity concept, with the primary emphasis now on the conditions desired in the area rather than on how much use an area can tolerate.

## Site Development in Yorkin

One of the central goals of the Parks in Peril Project was to establish processes and mechanisms to support the conservation of natural resources in national parks and their buffer zones. Within this context, the project sought to design programs that would support sustainable activities that could generate alternate sources of funding for the communities located within the park system.

When destructive agricultural and forestry practices were threatening the livelihood of the Rio Yorkin basin, the PiP Amistad team began to analyze the possibility of creating community based tourism as an alternative to the non-sustainable practices. A feasibility assessment was conducted by collecting information from central powers, notably the Ministry of Planning, and undertaking field investigations. The team conducted interviews with local government officials, community managers, and local business owners to focus on finding community-based solutions.

This study resulted in the presentation of a follow up plan, “Fomento de Turismo Ecológico y Cultural en la Cuenca del Río Yorkín” or “Strengthening of Ecotourism and Cultural Tourism in the Rio Yorkin Basin.” This plan takes a fundamentals-first approach. Instead of focusing on the development of tourist services or infrastructure, the plan is dedicated to comprehensive community capacity building and strengthening the basic public services such as clean water and waste management. The ultimate goal of this project is to increase the local capacity to plan their community development, coordinate with other institutions, and communicate effectively.

## Local Empowerment

Ecotourism has been deemed an appealing development alternative by indigenous communities in the Amistad region because it promotes the region’s natural resources while steering clear of exploitation and destruction.

By banding together, the communities within the park systems have the opportunity to reap the benefits in terms of conservation, economic development and education. With more access to information and technical assistance, the communities are able to participate in the developmental process. The PiP Amistad team has facilitated the organization of such networks, while also developing educational programs to educate the members.

In the Pacific sector of Amistad, local communities organized themselves under the Quercus Network, or “Red Quercus” in Spanish. This organization is dedicated to capacity building, environmental education, sustainable activity and tourism, and planning within protected areas. These goals motivate them to strive for a higher standard of living in their communities. The training program developed by the PiP project and INBio (National Biodiversity Institute) focuses on designing custom-made educational courses for the network members that emphasize the resources in Amistad such as mammals, birds, trees, fungi and trail interpretation.

On the Caribbean side of the park, 17 community groups from the Talamanca Indigenous Reserve joined together to form the Indigenous Tourism Network, also known as the “Red Indígena de Turismo” in Spanish. Since their recent formation, they have developed their own decision making mechanisms, rules, and procedures, and are reaching an agreement on the type of tourism activities to promote. They launched a strategy with a sustainable approach to building local capacity and developing and promoting their tourism product.

The training program designed by the PiP team, in collaboration with the National Learning Institute (INA), focuses on the variety of activities related to the tourism industry such as foreign language acquisition, finance management, and field interpretation.

Through education and active empowerment, the community networks are becoming more invested

in the conservation of their diverse territories and cultures. The PiP Amistad team is working toward replicating the success of the two networks by encouraging sustainable tourism activities at other sites throughout Costa Rica and Panama's Amistad forest. Positive results from feasibility studies at the new sites have encouraged the team to further explore both the ecological and social carrying capacity of potential sites.

## LESSONS LEARNED

### Diversification

Ecotourism was viewed by the project as one suitable alternative for income generation. As reported by Felipe Carazo, community based tourism in Amistad should be addressed as one of many sources of income, not as the economic salvation of the area. Other sustainable economic alternatives such as organic production, payment of environmental services, and research initiatives are also needed and should be promoted. Community based tourism should be approached as an activity that can help diversify the economic dynamic of the area.

### Capacity Building

Providing information and giving access to technical expertise in the region can lead to greater community empowerment. To leverage a strong commitment to product development, the team stressed capacity building and found that the community became empowered by taking part in a participative process.

### Alliance Building

Powerful alliance building, strong investment and participation are arguably some of the most important factors in determining the long term success of a project. As such, the future of the Amistad project has been strengthened by the formation of the Quercus Network and the Indigenous Tourism Network. Not long after these partnerships were created, the coalitions began setting their goals and projects based on

local capacity building, environmental education, and sustainable activity and tourism. Working together under common goals provides strong encouragement to become invested in the conservation of the diverse lands and cultures.

## B. ATITLAN VOLCANOES

**Country:** Guatemala

**Project Cycle:** October 1, 2001- December 31, 2006

**NGO Partner:** Asociación Vivamos Mejor  
Asociación de Reservas Naturales Privadas de Guatemala (ARNPG)  
Universidad del Valle de Guatemala (UVG)

### Government

**Agency:** Consejo Nacional de Áreas Protegidas (CONAP)

**Interviewee:** Jorge Cardona, PiP Project Coordinator

### Site Description

The Atitlán Volcanoes region, 130,000 hectares dominated by the cones of the San Pedro, Atitlán and Tolimán volcanoes, constitutes an ecologically important section of the Sierra Madre volcanic chain located in the Western Highlands of Guatemala.

The volcanic chain encompasses parts of three ecoregions, namely: the Sierra Madre Moist Forests, Central America Montane Forests and Central America Pine-Oak Forests shared by Mexico and Guatemala. Due to their geographic isolation, the cones along the volcanic chain are "islands of evolution" that function as areas of plant and animal endemism. The entire area is located on a combination of private and municipal/communal lands with limited formal protection.

The socio-economic context of the area is complex. During the project cycle, eighty-three percent of the population was impoverished and survived mainly on subsistence farming and as low wage agricultural laborers. At the same time, there was substantial investment in production for the agro-export sector, mainly coffee; and tourism, which continues to be a booming industry driven by national and international tourists drawn by the beauty of the lake and the local culture.

The limited availability of land and natural resources, combined with the high level of population and poverty continue to be the greatest sources of threat for remaining forests in the area. The specific manifestations of this threat are forest fires caused by unsafe agricultural burning practices and the use of forest areas for firewood extraction and building materials, which diminish the habitats and biodiversity of the area's forests.

Within this context, the project strove to work with the main stakeholders that had the greatest impact over the area. These included: communal landholders that held traditional communal and municipal lands; small private landowners that practiced subsistence farming; large private landowners that were mainly coffee growers; and the tourism industry.

### **Overview**

Atitlán Volcanoes site progress over the PiP2K cycle was characterized by both its past achievements and promising potential. The successful course of development that was initially implemented at municipal parks, San Pedro and Santa Clara La Laguna, has been instrumental in the greater regional expansion of the park system. Parks San Marcos and San Juan are following their lead while many other areas are currently being considered for official park status. The Iquitiu Park was officially declared in December 2006. Santa Maria Visitation is at the cusp of being labeled an official park, and four additional areas are taking the proper steps to attain this status in the near future.

Successful program implementation was reported in multiple areas by PiP Project Coordinator, Jorge Cardona. At the core of these achievements lies a strong management structure that has facilitated the steady pattern of improvements. Throughout the project cycle, participatory planning in management was identified as a key lesson learned in many project areas. Through examination of the key accomplishments, as well as the lessons learned, benefits felt by the community can also be highlighted with ease.

### **Key Accomplishments**

#### **Site Development**

In order to increase tourism flow in the park system, infrastructural changes needed to take place to accommodate the needs of the travelers while promoting conservation and local cultures. Successful participatory management of the park and its funds generated by the entrance fee system allowed for decisions to be made rapidly on central issues such as making facility improvements. San Pedro and Santa Clara La Laguna were the first municipalities to build tourist centers and a museum. Each site designed a program of activities unique to their surroundings. Both were able to hire park directors and rangers. San Juan and San Marcos municipal parks plan to follow in the developmental footsteps of the two leaders and are currently building tourist centers.

#### **Product Development**

An over arching theme of park development was identifying what would attract the tourists to a specific park. The Atitlán team implemented a system of identifying distinctive characteristics of each park to better develop unique tourist attractions. While San Pedro boasts themed educational and experiential tours of fishing, coffee, flora and fauna, local culture, and natural medicine, Santa Clara La Laguna targeted its adventure seeking patrons with the installation of ziplines and horseback riding.

## **Park Security**

One of the most critical needs in the park systems of Guatemala is professional park service teams to protect the wildlife, their habitat and the cultural resources against poaching, destruction and looting, in addition to providing security for tourists within the park. These individuals may also serve as important role models for community members on the importance of wildlife and habitat conservation.

During this project cycle, a park service team, locally known as the tourism police force, took steps to improve their visibility within the park system. To emphasize their commitment to park security and wildlife conservation, the team established their headquarters at the main point of entry in San Pedro Park. The rangers set up consistent patrol routes and their law enforcement became more consistent. As noted by PiP Project Coordinator, Jorge Cardona, their increased presence has caused a significant drop in security-related incidents throughout the park system.

## **LESSON LEARNED: PARTICIPATORY PLANNING IN MANAGEMENT**

### **Committee Relations**

The management systems of the two leading parks, San Pedro and Santa Clara Laguna were designed on the same principles. Inclusive tourism committees were formed that included the mayor of the municipality, members of the local tourist and coffee industries and other entrepreneurs, and Vivamos Mejor. The PiP team noted that while a solid civil organizational structure was vital to the success of managing the park system, the success of these committees was largely contingent on proper handling of the delicate committee member relations. Wavering political leanings could cause great fluctuations in local government members' opinions on

issues; the park systems needed to learn to deal with this patiently, since the municipality's cooperation was critical to the success of the entire system. Although the inclusive design of the committee lent itself to minimizing this problem, past political tension caused some sites to wait up to five years to be declared official parks.

In spite of these trials however, the growth and success of the tourism committees exceeded expectations. The committee design will be utilized as a model in other parks.

### **Entrance Fee System**

A central pillar of the Conservancy's economic development strategy was designing alternative methods of income generation at the sites. While the San Pedro and Santa Clara La Laguna sites were receiving government grants of approximately \$10,000 for forest conservation, the site still needed another means to become sustainable. This resulted in the design and implementation of an entrance fee system.

During earlier years of PiP2K, there was recurrent conflict due to the inconsistency in the distribution of revenues generated by the entrance fee system. Parties felt left out of the decision making process and the lack of participatory decision making was causing divisiveness among the stakeholders, which created problems for the PiP team. They realized that a participatory decision making framework would be required for finalizing the entrance fee system.

Subsequently, the fee amount was negotiated with many players including town business owners, the guide organization, local artisans, local tour operators, local government and park staff. Since the system was readjusted and the negotiation process became more inclusive, conflict decreased, cooperation improved, and

the community became invested in supporting the local park system. While this topic is listed under Lessons Learned, the implementation and development of the entrance fee system was central to the success of the site.

### **Guide Associations**

The team found that quality guiding is one of the most important factors when introducing visitors to a park system. Due to their fundamental involvement with the tourists, the cooperation of this group is vital to the success of the park and is highly dependent upon the relationships built between park managers and the guide association itself. Communication must be open and clear to fully understand the real needs of the local tourism community before beginning with any type of training.

As such, dealing with the guide association was noted as one of the most challenging issues that faced the PiP management team. The team set forth with firm ideas about the structure of the guide association, capacity building and expected group development. The guides began to feel as though their needs were not being met, and as conflict developed, management assessed their methods of communication. The team found that a consistently open line of frequent communication was vital to ensure the guide association's full cooperation. By approaching issues more carefully and patiently, an effective working relationship ensued and guide association became more invested in its role in the park system.

**Community Benefits:** Investing in the Future Community infrastructure and cultural identity have been positively affected as a result of these multiple efforts. The community's increased involvement in the tourism management committees was able to instill a greater sense of ownership in the protected area system, as well as a sense of justice when outcomes were not

solely contingent on the political leanings of local government. As the community received a fairly distributed portion of park revenues, gradual infrastructural improvement projects were undertaken. Community parks were updated and created in some areas, sanitation systems were updated, streets and sidewalks were repaired and city lighting was improved. These improvements have influenced people to take more pride in their parks and value conservation as it begins to take a larger role in the protection of their own value systems and cultures.

## **C. PACAYA-SAMIRIA NATIONAL RESERVE**

**Country:** Peru

**Project cycle:** October 1, 2001-September 30, 2007

**NGO Partner:** Peruvian Foundation for the Conservation of Nature (Pro Naturaleza)  
Peruvian Society of Environmental Law (SPDA)  
Conservation Data Center at La Molina Agrarian University (CDC)

### **Government**

**Agency:** Intendencia de Areas Naturales Protegidas del Instituto Nacional de Recursos Naturales (IANP - INRENA)

**Interviewee:** Maria Elena Lau, Pro Naturaleza

### **Site Description**

Pacaya-Samiria National Reserve is located in Northeast Peru in the Department of Loreto. It lies at the confluence of the Amazon River, between the Ucayali and

Marañon Rivers and contains the entire watersheds of the Pacaya and Samiria Rivers. The Reserve covers a surface of 2,150,770 ha, which represents about 1.7% of Peru's total land area, making it the country's second largest natural protected area. The Reserve is the focus of the largest project supported by The Nature Conservancy in Peru. It provides an important habitat for a rich variety of species including the pink river dolphin, giant otters, South American river turtle, jaguar and more than 440 bird species.

There are about 42,000 people living within the Reserve's boundaries distributed in 94 communities. Out of these, 24 communities are Cocama-Cocamilla indigenous peoples who have gone through acculturation and miscegenation processes during the last century. Around the Reserve, in the buffer zone, live an additional 50,000 people distributed in 109 communities and three small cities. Most people from the reserve and buffer zone live at near subsistence levels and depend mainly on the area's natural resources for their livelihood.

Main threats to the site include: timber extraction, over fishing, palm extraction and turtle egg extraction. Threats are linked with the local settlers and their subsistence activities, and working with them to ensure appropriate legal channels for the commercialization of managed resources will ensure the improvement of their livelihoods as well as the biodiversity conservation in the area.

### **Overview**

The progress of the Pacaya-Samiria National Reserve site can be characterized by the steady efforts to become competitive from a business perspective. The Consortium has taken the official steps to become fundamentally stronger, while product development efforts have focused on dealing with competition, customer service

and infrastructure. While not characterized as such, one of the site's key accomplishments is effectively identifying their limitations and taking proactive approaches to manage them, as seen in the lessons learned section. Among these are concerns over proper field monitoring, team development, financial responsibility and effects of ecotourism, as noted by Maria Elena Lau, of Pro Naturaleza.

## **KEY ACCOMPLISHMENTS**

### **Consortium Progress**

Many of the site achievements revolved around establishing the Rumbo al Dorado (RAD) Consortium. The Consortium is a four-way partnership of INRENA, Pro Naturaleza, the CDC and SPDA, all of which have clearly defined responsibilities and staff dedicated to Pacaya-Samiria National Reserve. Throughout the project cycle, the Consortium took many important steps to become officially recognized and operational. The Consortium received a lodge certificate from its supervisory entity, the regional tourism bureau, and became licensed with the local municipality. The Consortium also opened its first account in both a national and foreign bank to deposit the funds generated by tourist services.

After fulfilling the requirements to be accepted by the state supervisory body, the Consortium proceeded to commercialize as a tour operator. PromPeru visited the Consortium to offer support with promotion, therefore becoming integrated into the local, national and international tourism market. This status also grants them the opportunity to take part in state managed tourism campaigns and participate in the international trade fairs using promotional materials. The news of their establishment efforts was disseminated in various national media leading to increased international awareness of their progress.

## **Product Development**

Strengthening the program from the grassroots level was an essential focus of the Reserve site team. The team concentrated on the fundamentals of financial operations such as improving their methods of inventory and logbook management and exploring effective strategies on saving money. In order to become more competitive in the local market, a revision of rates was also undertaken. The team dealt with costs such as the tourist programs and meals, based on those of local competition.

Apart from finances, the overall image of the operation was addressed. Efforts were made to increase the quality of customer service by focusing on elements such as first aid certification and the importance of attractive meal presentation. Strong tourism administration skills were also underlined.

In order to complement the improved tourist services, emphasis was placed on preventative maintenance of the infrastructure. The Consortium began working with local settlers to determine their interest in participating in this kind of activity. As a result of their enthusiasm, the site's wooden boats were repaired and enhanced with new outboard motors. Three lodging facilities were remodeled, with a special focus on the restrooms and dining rooms.

The attention devoted to product development has been instrumental in increasing the tourist flow. The heightened activity has been generating income to maintain the infrastructure, tourist services and local capacity to carry out the Consortium's administration in the short term.

## **Capacity Building**

Skilled guiding services are one of the most central elements of the tourist experience in a park system. Due to the guides' fundamental involvement with the tourists, the quality of this group is vital to the success of the park and is highly dependent upon the type of training that is made available to them.

As such, a training program for Local Tourism Organizations (guiding techniques, administration and environmental interpretation) was developed in coordination with the Regional Tourism Agency (DIRCETUR) and Spain Cooperation (AECI). The objective of this program was to develop another income-generating activity for local settlers located in the buffer zone. Over 30 people, both men and women, have participated in these training opportunities.

## **LESSONS LEARNED**

### **Field Monitoring**

The team found that utilizing the expertise of a trained specialist can be very beneficial for the people working in field. In the past, the Consortium had been using tourism specialists that resided in the city of Lima. The advisors tended to be well-educated in coastal and mountain tourism, but not specifically in jungle tourism. Due to the advisors not working on site with the field projects and their lack in jungle expertise, a relationship gap developed between the advisors and the field teams. The city-based specialists did not understand the real needs of the local communities they were working with.

Because of this, the Reserve site team has adjusted their approach and now contracts a local tourism specialist that lives in the city of Iquitos. The specialist travels extensively to all sites to train local groups involved in the projects and to ensure that each project is moving forward. She serves as a valuable resource of information while holding each group accountable for their progress.

### **Team Development**

Teamwork has become essential to achieving sustainable results. Effective training pays off to help people to work together more effectively and to accomplish shared goals. To maximize their team's potential, the Reserve team, consisting of management and staff, attended workshops on team building and extracted many lessons learned from these training sessions.

Teamwork and the importance of being able to identify one's strengths and weaknesses were highly stressed at these sessions. The trainings emphasized the importance of working in a position that highlighted one's strengths rather than a position acquired through family connections. The employees are now conscious of accepting their strengths and weaknesses to properly identify which positions and responsibilities would be most fitting for each person to maximize efficiency.

The training sessions also targeted the local staff's concept of competition and standards. Many local workers had difficulty understanding why striving for a higher level of service was essential when their efforts of the past seemed to satisfy the tourists. After learning about the level of competition and how the tourism industry responds, they began to realize that paying attention to details was essential to maintaining high standards of service. Only by operating on that level could they successfully compete with the challengers. They learned that each person needs to be held accountable for his/her responsibilities, because one poor decision can reflect negatively on the whole team.

This type of training has been effective in working with the people of the local communities, many of which have less than secondary school education. For this same reason, one of the largest limitations that the group faces is dealing with materials and customer service in English. Further training is needed to build skills and self-esteem to be able to deal with guests more confidently and personally.

## **Financial Responsibility**

Competent financial management is a central pillar of success to many park systems. This project cycle is the first time that the Reserve team needed to apply their financial management skills. In the past, the site did not deal with large enough sums of money to allocate a significant portion of their time to managing finances. Now with more revenue, they have begun spending more time on resource administration, prioritizing their spending, and working with an accountant to handle taxes.

## **Local Empowerment & the Effects of Ecotourism**

Working with the communities requires devoting a great deal of time to capacity building and local empowerment. The site team realized that in order to get the local communities invested in the projects, they must start providing information to the local people on the positive effects of ecotourism in their region. The site team highlighted the positive economic and environmental benefits of operating a national park. A successful site must be able to communicate their natural history while integrating their cultural value systems. By generating funds, the community can experience an increased quality of life through educational and health programs. The site team also stressed the importance of sustainable development as a base for present and future generations. With more access to information and technical assistance, the communities will be able to participate in decision making processes. They will benefit from being a part of these activities and ultimately, their investment in the projects and shared knowledge will contribute greatly to the smooth operation of the park systems.

# ECONOMIC ASSESSMENT OF TOURISM IN ECUADOR'S NATIONAL SYSTEM OF PROTECTED AREAS: A CASE STUDY OF SEVEN TOURIST DESTINATIONS IN PROTECTED AREAS IN CONTINENTAL ECUADOR

*Arnaldo Rodríguez, Green Consulting*

## SUMMARY

This paper contains the results of an analysis of tourism as a way to pay for environmental services, analyzing its environmental and economic components, as well as visitors' experiences and the management of seven protected areas in continental Ecuador. In designing the project, two key concepts were used: the threshold of sustainability, and complementary opportunities. The threshold of sustainability is a concept related to the minimum level of reinvestment required to cover the costs of tourism in protected areas. The analysis of complementary opportunities comprises those activities allowed by the management plan that would generate more income for the system while improving visitors' experiences and creating opportunities for the tourism industry and local communities. The study contemplated three scenarios: (1) the continuation of the current situation, (2) a "moderate" scenario, and (3) a positive economic scenario. The "as-is" scenario foresees minimal revenue growth that is fragile and cannot be sustained. According to this scenario, the system runs the risk of collapsing, since tourism would become a threat to several of the sites visited. In the moderate scenario, higher earnings could be generated starting in the fifth year, which would cover the minimum management costs required to reach the threshold of sustainability. In this scenario, a loss of markets is contemplated: a reduction based on an analysis of sensitivity to increased entrance fees, but not an increase in overall revenues. The positive scenario presupposes a model that makes it possible to provide adequate levels of reinvestment, generating resources that not only cover the costs of tourism management but could also be used to fund other management activities.

## 1. DESCRIPTION OF THE CASE STUDY

Payment for environmental services is a flexible, direct and promising compensation mechanism whereby the providers of the services obtain payment from the users. Tourism is a form of payment for environmental services, reflected in an entrance fee in return for experiences considered desirable by visitors. However, sometimes the management of these services is inefficient due to technical problems among local actors or in parts of the superstructure. These deficiencies lead to "leaks" in the system and discourage the reinvestment needed to reach the threshold of sustainability, reduce the threat posed by tourism operations to natural capital, provide a positive and safe experience for the visitor, prevent cultural erosion, and ensure that management of the protected areas is efficient and effective.

Between 2005 and 2006, The Nature Conservancy (TNC), together with Conservation International, Ecociencia and Green Consulting, carried out a study entitled Economic Assessment of Tourism in Ecuador's National System of Protected Areas (SNAP). This study contains the results of an analysis of tourism as a way to pay for environmental services, assessing its environmental and economic components as well as the experience of visitors and the management of seven protected areas in continental Ecuador.<sup>5</sup>

<sup>5</sup> Podocarpus National Park, Cotacachi Cayapas Ecological Reserve, Cajas National Park, Cuyabeno Animal Reserve, Cotopaxi National Park, Machalilla National Park, and Cayambe Coca Ecological Reserve.

In Ecuador, tourism in protected areas has benefited conservation efforts, the tourism industry and local communities. However, it currently poses a threat to conservation, due mainly to the lack of tourism management capacity within the system. The cost of effective tourism management in Ecuador's protected areas has never been estimated. Despite its importance, reinvestment to cover the costs of tourism management (both in terms of regular expenditures and capital investment) has been insufficient or non-existent in the sites studied. This was in part due to the complex flow of resources within the Ministry of the Environment (MAE) and among other ministries, as well as lack of political will to reinvest adequately due to a lack of knowledge of the financial realities.

## 2. PROJECT ACTIVITIES

### PROJECT DESIGN AND IMPLEMENTATION

Two key concepts were applied in designing the project: the threshold of sustainability and complementary opportunities.

The threshold of sustainability of sustainability is the minimum level of reinvestment required to cover the cost of tourism management in protected areas – the minimum capacity, services, and infrastructure needed to guarantee the conservation of nature, provide positive experiences for visitors and ensure effective management. Complementary opportunities are additional tourism activities

**Threshold of sustainability:** The minimum level of reinvestment required to cover the cost of tourism management in protected areas – the minimum capacity, services, and infrastructure needed to guarantee the conservation of nature, provide positive experiences for visitors and ensure effective management.



**Complementary opportunities:** Additional tourism activities permitted by the management plan, such as the provision of hospitality services, the sale of food, and rowboat and bicycle rentals, that increase park system revenues while improving the quality of the visitors' experience and creating opportunities for the tourism industry and local communities.



permitted by the management plan, such as the provision of hospitality services, the sale of food, and rowboat and bicycle rentals. These types of services would increase the system's revenues while improving the quality of the visitors' experience and creating opportunities for the tourism industry and local communities.

The first step in carrying out the study was to estimate the investment levels<sup>6</sup> and regular expenditures<sup>7</sup> needed for each protected area to reach the threshold of sustainability. The potential financial impact of developing complementary opportunities in each area was also quantified, with reference to at least one specific example.

In order to standardize the investment and regular expenditure analysis, five aspects of tourism management in protected areas were defined: (1) conservation, (2) facilities, services and infrastructure for tourists, (3) information, interpreting, and promotion, (4) safety, and (5) management and training.

<sup>6</sup> Capital investment refers to short and long-term investments in assets that are needed for effective tourism management

<sup>7</sup> Regular expenditures are those that only affect the period in which they originate. They are the constant expenditures required to ensure the effective day-to-day management of tourism activities.

To estimate the financial dynamics, the financial flows of tourism expenditures in the protected areas were analyzed, i.e. the various steps, relations and amounts being transferred among the various players in the superstructure. The estimates of the number of visits to the areas studied, as well as the analysis of growth patterns, were based on data from the Ministry of the Environment (MAE). The average annual growth numbers and the underlying trends were the basis for preparing the financial projections.

In order to devise possible scenarios based on moderate and economically positive increases in fees, an analysis of the existing demand was required. One of the methodologies used was contingent valuation, a survey-based technique that allows forecasts to be made regarding the elasticity of demand with regard to changes in the protected areas' entrance fees.

Finally, three scenarios were produced, all with projections up to 2010.

The scenarios were the following:

- Continuation of the current situation, with no increases in fees and no additional expenditures to ensure that the protected areas would reach the threshold of sustainability.
- A moderate scenario based on more efficient economic growth with the least impact in terms of loss of demand, and regular expenditures that would reach the threshold of sustainability in tourism management.
- A positive economic scenario, with a significant increase in fees and regular expenditures that would guarantee the threshold of sustainability in tourism management.

It is important to note that these simulations were aimed at finding ways to improve tourism management in the areas under study and to establish financially and environmentally sustainable foundations for the activity.

In order to guarantee the minimum level of sustainability, it would be necessary to carry out initial investments in the areas. Investment costs were estimated based on the five categories mentioned earlier, and the analysis compared the existing gap between current investment and the investment needed to reach the threshold of sustainability.

The analysis of complementary opportunities included the creation of models that add goods, activities and services to the threshold of sustainability to generate additional income for the SNAP, the private sector, and local communities. To determine whether these models would indeed produce additional income, preliminary business plans were drafted.

In addition, an analysis was carried out of the legal framework needed to change the entrance fees, ensure adequate reinvestment to reach the threshold of sustainability, and devise mechanisms for incorporating third parties, delegating tasks, leasing, and concessions, in order to implement the complementary opportunity models.

### **3. PRELIMINARY RESULTS**

Despite the existence of payments for environmental services in the form of entrance fees and operating licenses, plus the existence of co-management programs, the SNAP has a financial deficit that prevents it from reaching the threshold of sustainability. This is how the three scenarios would affect the situation:

#### **CONTINUATION OF THE CURRENT SITUATION**

Minimal revenue growth is projected. The study shows that this growth is fragile and cannot be sustained. According to this scenario, the system runs the risk of collapsing, as tourism is becoming a threat to several of the sites. These threats include damage to the physical environment (e.g., erosion), damage to the vegetation,

pressures on wildlife, noise, pollution, and excessive concentrations of visitors. In turn, such damage could reduce the levels of visitor satisfaction at the sites, compromising long-term revenue sources. Those responsible for management at various levels have expressed their concerns over the current model; for some, tourism has become a burden that goes beyond their responsibilities. Figure 1 shows the income generated by tourism, i.e. all the revenues collected in the protected areas as a result of tourism activities; expenditures related to tourism, i.e. all the expenditures that must be made within the areas to manage tourism; and

the net earnings. of the system, in other words, the direct contributions of the areas to MAE's overall budget.

### MODERATE GROWTH

Starting in the fifth year, this scenario projects higher revenues than under the previous model, but just enough to cover the minimum management costs to reach the threshold of sustainability. It contemplates a loss of markets (a reduction based on the analysis of demand's sensitivity to prices) by increasing the entrance fees, but this would not affect overall revenues (Figure 2).

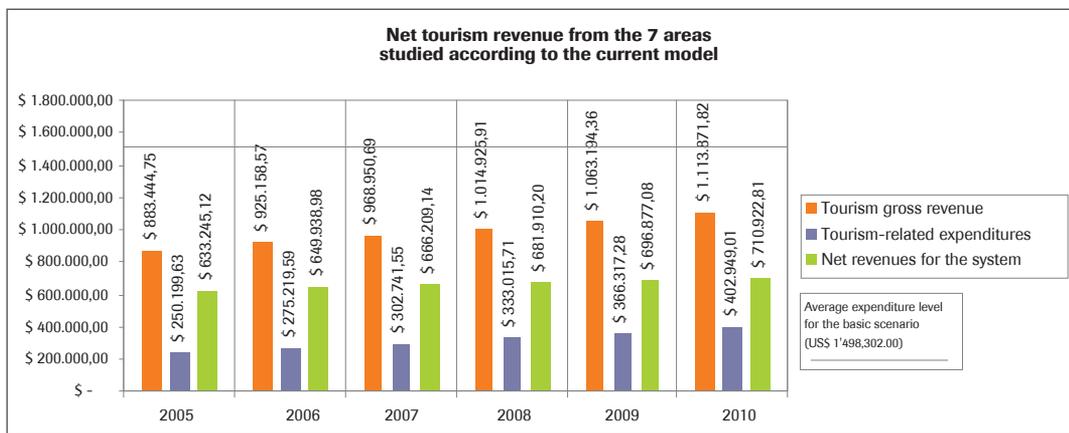


Figure 1. Revenue, expenses and net earnings at present from the sites under study

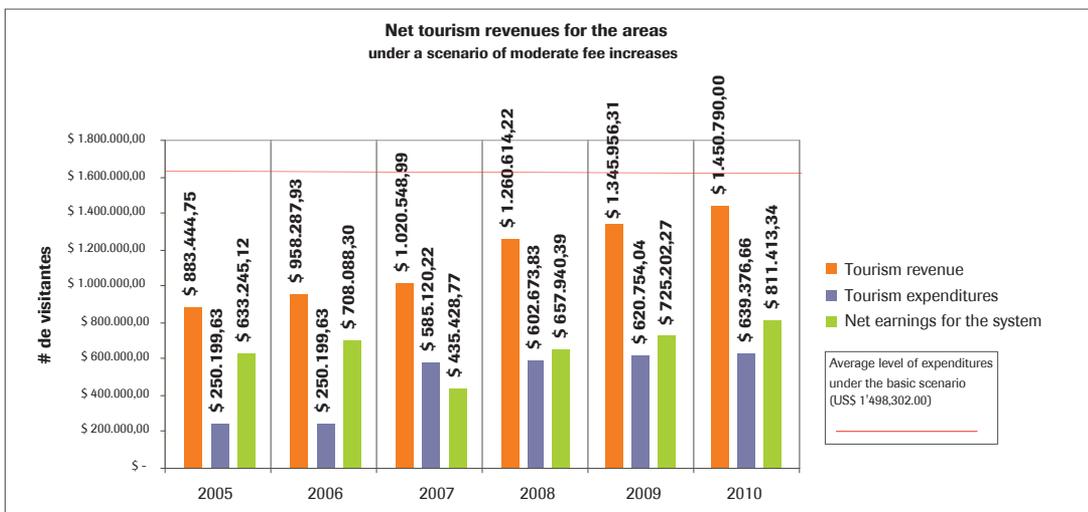


Figure 2. Revenue, expenses and net earnings from the sites under study according to the moderate growth scenario

## THE POSITIVE ECONOMIC SCENARIO

A model would be implemented to allow for the necessary reinvestment, generating resources that not only cover the costs of tourism management but could also be used to cover other management activities (Figure 3).

In addition to the results mentioned above, the study showed that:

1. At present, the tourism budget in most of the areas under study does not meet their basic needs, putting at risk the natural capital and visitor demand for those sites.
2. The study shows that the SNAP is losing significant revenue by not adopting a technical approach to setting fees, and by the lack of facilities for paying for entrance fees (including the use of technological tools such as sales via the Internet) and limited mechanisms for effective collection (including the use of third parties to collect entrance fees). These problems are linked to the absence of an effective operational and legal framework.

3. There are several complementary activities that could generate revenue and increase demand but these are not being taken advantage of, mainly due to the non-application of regulations and laws (such as concessions and leases), despite the existence of an appropriate legal framework.
4. The decentralization process runs the risk of fragmenting the SNAP, while NGO-managed tourism does not guarantee successful management (Drumm 2002, Wood 1998). However, it does pave the way for defining criteria for assessing potential tourism co-management frameworks for protected areas.

## 4. CURRENT CHALLENGES AND PROPOSED SOLUTIONS

The greatest challenge is changing the current tourism management model used in the SNAP, with regular expenditures that can at least reach the threshold of sustainability while covering the costs of tourism itself. These are the solutions proposed:

1. Capital investment must reach the proposed threshold.

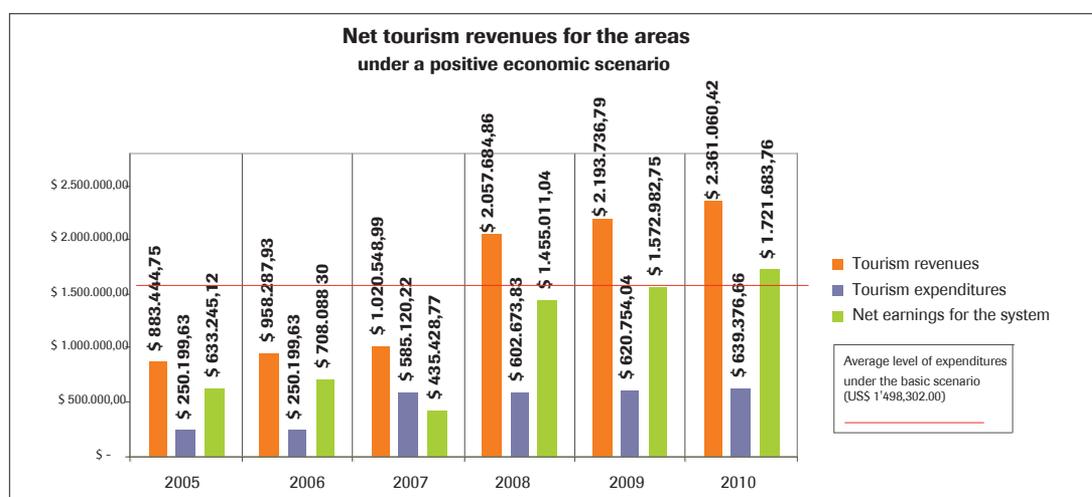


Figure 3. Revenue, expenses and net earnings from the sites under study under the positive economic scenario

2. Entrance fees must be revised and adjusted based on technical criteria supported by an analysis of real costs and demand.
3. Before the fees are increased, the threshold of sustainability must be reached through regular expenditures and capital investment.
4. Some areas need to increase the number of visitors so that the costs associated with tourism management within the threshold of sustainability match revenues and do not require external subsidies.
5. Current legislation must be enforced in order to open up opportunities for other players.
6. Co-management models in some of the areas studied should be analyzed and, if successful, incorporated into the other management models.
7. New mechanisms for charging entrance fees must be analyzed and implemented in order to adjust to the needs of current tourists and also to changes in technology.
8. The collection of entrance fees should be transferred to third parties.
9. Laws, rules and regulations should be applied to facilitate reinvestment in protected areas through tourism, together with current legislation that allows concessions, the collection of fees by third parties, delegation and/or leasing, in order to promote complementary opportunities.

Given the large number of technical and sociopolitical variables, economic valuation cannot provide a complete frame of reference. For this reason, the first challenge is to carry out a complementary study that analyzes how tourism is appraised or valued by the communities surrounding the protected areas in order to identify its contribution to local communities.

## 5. LESSONS LEARNED

In the course of carrying out the study, various factors were identified that facilitated or hindered the process. Below is a summary of the lessons learned from the study, the obstacles encountered by the work team and some recommendations for future studies.

### OBSTACLES ENCOUNTERED:

1. Absence of standardized information in the various sources, due to the lack of record-keeping at each tourism site.
2. Lack of knowledge regarding tourism and its components due to the lack of specialized tourism training among those responsible for managing the protected areas.
3. Difficulties in identifying the resources specifically assigned to tourism. Each protected area has an Annual Operating Plan, which determines the annual economic resources assigned to the site and the investments to be made. However, the Plan does not specify the amounts assigned to tourism activities.

### RECOMMENDATIONS FOR FUTURE STUDIES

In order to maximize the impact of future studies, it is recommended that research of this type adhere to the following guidelines:

1. The studies should be multidisciplinary, that is, take into consideration the various economic, social, legal, political, environmental and statistical aspects, and employ appropriate methodologies for each type of analysis. Future studies should involve the participation of specialists in all of the above areas.

2. The studies should be carried out in a participatory manner, involving stakeholders from different sectors. The analysis and conclusions of the study should reflect the comments of the various actors, including representatives from the protected areas, members of the superstructure, tourism operators, and development agencies, as well as the needs they have identified by consensus.
3. In the course of carrying out the study, the researchers identified a strong need for improved communication among the stakeholders. The lack of knowledge regarding roles and responsibilities caused confusion at the time of compiling the information. In an effort to resolve this problem, participatory workshops were organized with each group of actors.

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# ECOTOURISM CONCESSIONS IN THE NATURAL NATIONAL PARKS OF COLOMBIA

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## SUMMARY

This study describes the design and implementation of ecotourism concessions in the Natural National Parks of Colombia as a mechanism to improve the financial situation of the protected areas. Ecotourism concessions were conceived as a contract between the State and an operator (private, public, community-based or mixed) to provide lodging, food, administration of entrance fees, parking facilities and other complementary services, using the parks' infrastructure. The general model is a "Concession Contract for Ecotourism Services" for a ten-year period, awarded through a public bidding process. The contract requires operators to make periodic payments, maintain and invest in infrastructure, hire local labor, implement activities to improve the provision of services in the surrounding communities and purchase food products and handicrafts from these communities. The results of these concessions have exceeded the expectations of the National Parks Unit: the number of visitors was increased within the permitted limits of carrying capacity, infrastructure was improved, the projected investment was increased, and local workers were trained and hired under better working conditions. The first lesson learned from this process is that "political will is essential" at all levels. The support of the institutions, directors and technicians, as well as of the grassroots communities and social organizations, has been crucial to this effort. At the technical level, the most important factor was to use all the existing experience, information and documentation. If this information had not been gathered and incorporated perhaps the design period would have been much longer. It is important to understand that ecotourism service concessions imply an ongoing process of adjustment and learning for all the parties involved, since neither the Parks Unit nor the potential operators in Colombia have previous significant experience in this field.

## 1. DESCRIPTION OF THE CASE STUDY

Colombia's National Parks System covers more than 10% of its territory. Its 51 protected areas contain the country's most valuable ecosystems and the second greatest biodiversity in the world. Although Colombia's National Parks have existed for more than 30 years, the System was not created until 1994. It is currently administered by the National Parks Unit, attached to the Ministry of the Environment, Housing and Territorial Development.

From 1998, the Parks Unit began to face financial difficulties due to a 56% reduction in central government contributions and a 40% reduction in revenues from tourism. The first factor was caused by Colombia's fiscal crisis at the end of the nineties and the second was due to the public order and security problems affecting the country.

In 2000, with the support of *The Nature Conservancy* and *World Wildlife Fund*, the Parks Unit designed a Financial Sustainability Strategy in order to find new ways to provide funding for the Parks System. The strategy designed was based on four main activities: 1) increasing the Parks Unit's own revenues based on environmental services (particularly water and ecotourism), 2) increasing the financial support provided by the central government, 3) increasing international funding, and 4) establishing a long-term financial mechanism for Colombia's protected areas.

In the process to develop the Financial Strategy, the Parks Unit received support from the Government of Holland within the framework of a broader Institutional Strengthening Program

for the entity. With resources provided by Dutch Cooperation, the strategy was implemented between 2002 and 2005, with some additional support activities in 2006.

To increase the financial resources from ecotourism, the strategy contemplated four specific actions: a) reform the fees or charges for ecotourism services in the national parks, b) introduce new tax incentives for investments in ecotourism, c) support the development of business plans in communities that provide ecotourism services in National Park areas and d) ecotourism concessions in some of Colombia's Natural National Parks.

## 2. PROJECT ACTIVITIES

### CONTEXT ANALYSES FOR ECOTOURISM CONCESSIONS

The ecotourism concessions in Colombia's National Parks System were conceived as a contract between the State and an operator (private, public, community or mixed) to provide lodging, food, administration of entrance fees, parking facilities and other complementary services, using infrastructure owned and built by the government in the national parks. These concessions do not include conservation management or monitoring and control activities in the areas, since these tasks are the exclusive responsibility of the Parks Unit.

A number of different aspects were analyzed to help design and implement the concession system. First, the legal and institutional framework was reviewed, including the rules and regulations on State contracting of services, the responsibilities that could be delegated by the Parks Unit, existing environmental restrictions and controls, the links between the different institutions that might be involved in the process with the Parks Unit at the national, regional and local levels, and the relations with the local communities, particularly those that could provide complementary ecotourism services.

The next step was to analyze the economic context, including the potential revenues that might be generated through the concessions system, as compared with what the Parks Unit was receiving at that time, and the projected growth in the tourism sector with the improvement of the public security situation in the country. The results of the analysis showed a great opportunity for the Parks Unit to improve its ecotourism services and increase its resources, but also a challenge to prevent environmental damage due to increased numbers of visitors to the parks.

The environmental context was analyzed in terms of the potential impact of tourism on the ecosystems and the need to reach a wider public to educate it on environmental conservation issues.

#### ANALYSIS OF ENABLING CONDITIONS FOR CREATING TOURISM CONCESSIONS

##### Legal and institutional conditions:

- **The park service**
- **National, local, and regional institutions**

##### Economic conditions:

- **Market potential of the natural attractions**
- **Projected growth of the tourism sector**

##### Environmental conditions:

- **Impact of tourism on ecosystems**
- **Conservation education**

The analysis of the institutional context revealed fears among national parks officials that the privatization of conservation efforts would end up eliminating their institution. To address their concerns internal discussions were held to determine whether the Parks Unit's mission was conservation or tourism. In these discussions it was made clear that potential operators would be restricted to administering ecotourism

infrastructure, thereby releasing the Unit's human, technical and financial resources to focus on conservation work that was not being carried out due to the demand for tourism services. This argument helped to clear the way for implementing the concessions system.

Some local indigenous groups and *campesino* communities also expressed concern that the concession of ecotourism infrastructure would restrict other environmental services that they were receiving, particularly water. It was therefore very important to clearly explain and define the scope of the concession, which is limited exclusively to ecotourism and has no impact on other environmental services generated in the national parks.

The analysis of the economic context produced the following results:

1. The 400,000 visitors that the National Parks System receives on average each year are concentrated in nine of the 51 existing parks. About 95% of these visitors are nationals, unlike other Latin American countries where a high proportion of the visitors are foreign tourists.
2. There is a clear need to boost financial resources, as the revenue obtained from ecotourism services barely covers 50% of the costs of providing these; the deterioration in services and infrastructure are evident and financial resources are needed to maintain and improve facilities for visitors and to increase environmental monitoring and control in the areas that receive the greatest number of tourists.
3. Ecotourism offers great potential, since the analysis shows that people are willing to pay for ecotourism services double of what the National Parks are charging, and might pay much more if services were improved. Moreover, Colombia's tourism sector is beginning to grow with the improvement

in security conditions and a similar growth is also expected in the Natural National Parks. However, despite the potential, there are doubts as to whether there are ecotourism operators with sufficient technical and financial capacity, given that it is not a traditional tourism business but has special characteristics associated with environmental issues.

4. There is a risk that tourism will have a major impact on the ecosystems; in the parks with the greatest ecotourism potential the pressure of tourism is already so great that the limited resources available are used to attend to visitors and are insufficient for control and monitoring purposes. Similarly, the infrastructure and services are in such poor condition that more educated visitors and family groups are discouraged from visiting, due to the lack of basic facilities that would guarantee their safety and comfort in the areas. If the Parks Unit is to attract more educated visitors and families, environmental promotion and education must play a very important role, since the children would be more likely to visit the Parks when they become adults.

The results of the abovementioned analyses provided useful elements to continue with the process, since they highlighted aspects that had not been taken into account. They also confirmed that this initiative offers a great opportunity to conserve the ecosystems and generate financial resources for the Parks Unit.

## **MAKING THE CONCESSIONS VIABLE**

Having analyzed the context in which the concessions would be implemented, the next step was to assess their viability in four areas: political, legal, technical and financial. The concessions had to be feasible in each of these aspects, otherwise they could not be executed, and to this end a number of elements were identified and adjusted to make the scheme viable.

In the political sphere, the National Council for Economic and Social Policy– CONPES– was convened. This body is headed by the President or his representative, the Director of the National Planning Department, who together with the cabinet ministers issued a policy document on “*Private Sector Participation in the Provision of Ecotourism Services in the National Natural Parks*” to provide political backing to the process. The concessions were also included in the National Ecotourism Policy developed by the Ministry of Industry, Trade and Tourism and the Ministry of the Environment, Housing and Territorial Development.

In the legal area, the administrative requirements of the Law on Government Contracts were checked and different supervisory entities were invited to participate in the dissemination process, including the Office of the Comptroller General of Colombia, the Attorney General’s Office and citizen monitoring groups, and to audit the process from the outset. In addition, the Property Rights over the ecotourism services in the national parks were verified. This review confirmed that concessions are a viable tool for the State to administer services provided by the National Parks.

In the financial aspect, eight parks were selected with at least two characteristics: a) they must contain infrastructure belonging to the State and b) they must receive a substantial number of visitors. Based on these criteria the following parks were selected: Tayrona and Salamanca on the Caribbean coast; Gorgona on the Pacific coast; Los Nevados, Iguaque and Otun-Quimbaya in the Andean zone; Amacayacu in the Amazon region; and El Tuparro in the Llanos Orientales. Financial analyses were prepared for each of these parks to determine under which conditions it would be feasible to implement the concession.

Finally, to assess the technical viability of the concessions two further aspects were analyzed: environmental aspects and services for tourists. To ensure environmental viability, the Management Plans for each of the pre-selected concession areas were reviewed to determine whether the proposed activities could be implemented within the existing zoning arrangements. Carrying capacity studies were also prepared based on the methodology of limits of acceptable change (LAC), setting limits on the number of visitors to prevent adverse effects on the ecosystems. In addition, manuals were prepared on quality of service to visitors, with guidance from experts in this field.

## TOURISM OPERATIONS AT TAYRONA



## THE LEGAL AND FINANCIAL MODEL FOR THE CONCESSION

Having considered the aspects that would determine the viability of the concessions and their application in the eight pre-selected parks, a decision was made to develop a standard legal and financial model that could be applied during the first phase. In this phase, concessions would be implemented in the Amacayacu, Tayrona, Gorgona and Los Nevados National Parks.

The general model is a ten-year “Concession Contract for Ecotourism Services”, awarded through a public bidding process. This contract includes a) the pre-project studies carried out in the feasibility stage, b) the concession contract which stipulates the requirements for operators and the financial terms and conditions, and c) the technical annexes which specify the environmental and quality of service requirements for each particular protected area.

The concession contract stipulates a periodic payment (annual, half-yearly or quarterly) - either a fixed annual quota or a percentage of the gross income received by the operator, whichever amount is higher. In this way, the concessionaire will always pay the Parks Unit a minimum sum and, if the operator’s gross income should increase over time, the payment to the Parks Unit will also increase.

Furthermore, the contract requires the concessionaire to maintain the infrastructure in good condition and to make additional mandatory

investments to improve facilities. Most of these investments are programmed during the first three years of the project. Finally, the contract requires concessionaires to employ a certain percentage of local staff, strengthen the provision of services to surrounding communities and to purchase food and handicrafts from these communities. The following table shows the concession payments agreed in each park. (Table 1.)

The financial model for the concession is based on the following principles:

The concession’s income and expenses may only include the operation of ecotourism services. Since previously the Parks Unit were directly responsible for administering the infrastructure and ecotourism services while at the same time carrying out other environmental conservation tasks in the area, the revenues and expenses generated by all these activities were recorded in general terms for the whole area. To separate the ecotourism component it was necessary to identify more precisely the income and expenses derived from this activity, in order to determine its viability in the protected area and so that would not create additional burdens for the Parks Unit or for the concessionaire. In other words, ecotourism activities would be managed as a Business Unit in the protected area, given that this is the only aspect that would be handed over in concession. The additional income generated for the Parks Unit would help to cover the deficit in other activities such as environmental monitoring and control, although these would not be directly charged to the ecotourism operation.

Table 1. Amounts to be paid for the concession of ecotourism services

PARK	FIXED ANNUAL FEE *	PERCENTAGE OF ANNUAL GROSS INCOME
Amacayacu (Amazon)	US\$ 12,000	6%
Tayrona (Caribbean)	US\$ 166,000	16.25%
Gorgona (Pacific)	US\$ 57,000	10.5%
Los Nevados (Andes)	US\$ 100,000	14.5%

\*Approximate value in 2007 dollars

In other words, the idea was to identify the net income from services, based on a cost analysis of ecotourism services.

Under the concession system, ecotourism services may only be implemented if the payment made to the protected area is equal to the gross income that the area has generated in the past for such services. Initially, a lower limit or starting point is defined for the payment or fees that the operator should pay to the Parks Unit. In cases where a park's previous gross income did not allow it to make a profit, other variables of the model should be adjusted, such as the amount and timing of the obligatory investments, the percentage of payment over gross income and the period of the contract.

### 3. PRELIMINARY RESULTS

In the second semester of 2003 the Parks Unit launched the first public bidding process for the concession system in the Amacayacu National Natural Park. Although local operators and some national interested parties were invited to participate, no formal proposals were submitted. The process also generated some controversy among organizations representing national indigenous communities. However, when these groups understood the advantages that the

concessions would offer their communities in the protected areas, the opposition subsided.

In response to the absence of formal proposals for the Amacayacu concession, an investment banking firm with expertise in public concessions was contracted to identify the possible weaknesses in the system. The firm endorsed the financial, technical and legal models, and focused on selling the project to possible operators. With the interest generated, the bidding process was opened once again in April 2004, and the concession was awarded to the Unión Temporal Amacayacu, constituted by Aviatur and Hoteles Decameron. Aviatur is Colombia's leading tourism operator and Hoteles Decameron is one of the country's largest hotel chains with additional investments in the Caribbean and Central America.

Following the bidding process for the ecotourism concession in Amacayacu National Natural Park, other bidding processes were opened. However, only one consortium participated in these, always with Aviatur present. This company called for local partners (public or private), interested in operating the concession, using different operating models in each park, - though all the models involved increased local participation in the projects, as shown in the following table:

Table 2. Models of association for operating concessions

LOCATION OF THE CONCESSION (PROTECTED AREA)	TYPE OF SYSTEM	PARTICIPANTS
Amacayacu (Amazon)	Private	Aviatur (national private company) Hoteles Decameron (national private company)
Tayrona (Caribbean)	Private - Gremial	Aviatur (national private company) Alnuva (local private travel agency) Santa Marta Chamber of Commerce (Consortium of local private companies)
Gorgona (Pacific)	Private – Civil society I	Aviatur (national private company) Avia (Local private tourism agency) Fundación Malpelo (NGO)
Los Nevados (Andes)	Private - Public	Aviatur (national private company) Termales del Otoño (local hotel company) Inficaldas (Public institute for local business development) Infimanizales (Public institute for local business development)

The results of the ecotourism concessions have exceeded the expectations of the Parks Unit. The most significant results have been:

1. An increase in the number of visitors within the permitted limits of carrying capacity, especially in Amacayacu with a 58% increase (from 4,300 visitors in 2005 to 6,800 in 2006) and Tayrona with a 45% increase (from 110,000 visitors in 2005 to 160,000 in 2006).
2. Improvements in infrastructure and an increase in projected investment. Operators have invested up to four times more than the sum required to restore the infrastructure, from their own pocket and at their own risk, since the Parks Unit does not provide compensation for investments greater than the sum established in the contract. In addition, most of the materials and inputs have been purchased in nearby communities, contributing to the local economy.
3. Increased benefits for local communities. In all the concession areas local workers have been hired under better working conditions, and have received training to provide a better service to visitors. In addition, agreements have been made with local communities to provide tour guide services and for the sale of handicrafts, which have increased substantially compared with previous levels. The most significant case is in the Amacayacu National Natural Park, whose indigenous communities have reported a 150% growth in the sale of their services and handicrafts in the last year.

#### **4. PRESENT CHALLENGES AND PROPOSED SOLUTIONS**

The main challenge for the Parks Unit under this system has been to guarantee a strict environmental monitoring and control of the operation. It is not only important to guarantee the benefits to visitors, the operator and the communities, but also to ensure that the

areas' conservation objectives are being met and that the impacts of ecotourism are less than those experienced prior to implementing the concession system.

It is also essential to strengthen the grassroots communities so that they can operate the system themselves, either in its entirety or some of the related ecotourism services, as a mechanism for promoting local "ownership" of the process. It is important that the operators carry out activities to transfer knowledge to the communities, to enable them to operate other infrastructure and even develop ecotourism programs in their own areas, maintaining their own principles of social organization.

In the medium term, the results and the lessons learned from this process will determine the possibility of exploring new areas in the Natural National Parks that have no infrastructure but have potential, as these could provide environmentally viable opportunities. Ecotourism is not simply an activity for generating economic resources but is also a way to educate people about the importance of conserving ecosystems and achieving sustainable development. By offering more ecotourism alternatives and spaces in the national parks, visitors will recognize their importance and will change their attitudes towards the environment.

Finally, this experience may be used to promote the model in other types of conservation categories for protected areas, such as private reserves and regional parks, based on the same principles of environmental conservation, income generation and benefits for local communities, regarded as essential elements to achieve sustainable development.

## 5. LESSONS LEARNED

The initiative to develop ecotourism concessions in the Natural National Parks of Colombia has succeeded thanks to medium term planning and the ongoing support of the National Parks' Administration. Although the design and consultation process lasted nearly four years, the system is producing its first results after two years of operation. It is clear that the system must be dynamic and will therefore require continuous adaptation, both on the part of the operator and the Parks Unit, always with the aim of achieving the conservation objectives defined for the protected areas.

The first lesson of this process is that "political will is essential" at all levels. The support of institutions, directors and technicians, together with the backing of grassroots communities and social organizations has been fundamental to this endeavor. Ever since ecotourism infrastructure was first built in Colombia, the intention was always to develop a system to be managed by experts in that field, so that the country's conservation agency could focus on its own tasks. However, there was great resistance to this plan, due to fears that other environmental services would be privatized, and therefore it was not implemented. The effort by the Parks Unit to achieve a common objective, both within the institution and in the protected areas with other organizations, has been fundamental.

By maintaining a continuous flow of information throughout the process, both within the institution and outside it, the Parks Unit made it possible to reach a

consensus. The difficulties encountered previously were generally caused by a lack of information or misinformation, which generated resistance that could have been avoided with effective information management.

At the technical level, the most important factor was using all the existing experience, information and documentation. It is generally considered necessary to begin an initiative "from zero", but in this case a wealth of information was available at the local, regional and national levels and was used to contribute to the technical designs. Biological studies, university theses, tourism reports, suggestions by visitors, local community experiences and many other sources of information were very important; these were organized and analyzed methodically with the aim of structuring the concession. If this information had not been incorporated, perhaps the design period would have been much longer.

Finally it is important to emphasize that ecotourism concessions involve an ongoing process of adjustment and learning for all the parties. Neither the Parks Unit nor the potential operators in Colombia had previous significant experience in this field. The mere understanding that this process should be developed and continuously adjusted within the established legal framework and in pursuit of environmental conservation goals, has been a key aspect for its continuity and for successfully reconciling differences between the parties that are typical of a new "business venture".

# SUSTAINABLE FINANCE FOR PROTECTED AREAS: TOURISM ENTRANCE FEES – EDUARDO AVAROA RESERVE, BOLIVIA

*Andy Drumm, The Nature Conservancy and Kreg Lindberg, Oregon State University, 2004,  
with updates in 2007 from Juan René Alcoba Meriles, SNV and Álvaro Baez, SERNAP*

## INTRODUCTION

This chapter evaluates a four-year pilot entrance fee program at the Eduardo Avaroa Reserve (REA) in Bolivia and makes recommendations for modifications to strengthen the fee program and for its extension throughout the Bolivian Protected Area System.

Visitation to natural protected areas is increasing rapidly around the world and Bolivia is no exception. Consequently this rising tourism tide is exceeding protected areas' capacity to keep it within sustainable levels so that tourism is increasingly being identified as a threat to biodiversity. To avoid the loss of valuable biodiversity through tourism related pressures, and in order to access the benefits that tourism can generate for protected areas, it is essential that they have sufficient capacity in terms of infrastructure, personnel and management systems in place.

As is the case in many developing countries, the Bolivian government has not been able to finance the investments necessary to install this capacity at the areas facing pressure from visitation. Unlike many countries though, Bolivia has not yet implemented a comprehensive system of tourism-based income generation mechanisms to at least cover the costs that visitation creates for protected areas. Consequently the Bolivian Park System (SERNAP) is foregoing a significant source of income which could contribute to much-needed investments that could result in:

- Improved PA management capacity
- Reduced threat to biodiversity
- Better quality visitor experience
- Greater investment in sustainable development opportunities for local communities
- Higher national and international profile of protected areas
- More employment opportunities for local people
- Enhanced environmental education function

In recognition of the urgent need of funds to address these tourism-related threats, and given that the REA is Bolivia's most visited protected area, a pilot entrance fee system was introduced there in September, 1999. This pilot was in accordance with Ministry of Sustainable Development and Planning Administrative Resolution No. 039/99 of 23 August, 1999 and based on the recommendations of the document - lanificación Estrategica del Sistema de Cobros para la Reserva Nacional de Fauna Andina Eduardo Avaroa; Ministerio de Desarrollo Sostenible y Planificación, SERNAP 1999.

When the fee system was introduced in 1999, the above mentioned document estimated visitor growth for the following 10 years at 12% annually. In reality REA has reached estimated 2008 visitor levels in 2003. Clearly, the establishment of adequate tourism management capacity of the reserve is even more pressing than when the pilot began.

This chapter presents an excerpt of a report produced in 2004 to evaluate the REA pilot fee

program (1999-2003). A single entrance fee of Bs. 30 was established in 1999 for all visitors. To evaluate the acceptance of this fee and evaluate more accurately the market potential, a price responsiveness survey was conducted, using both contingent valuation and contingent behavior analyses. A total of more than 400 visitors were interviewed.

Interviews took place in the REA and at Uyuni and San Pedro de Atacama, the principal entry and exit points to the Reserve. The surveys were designed in collaboration with Dr. Kreg Lindberg, then of the University of Colorado, who also carried out the statistical analysis of the results. As there are implications for the Bolivian Protected Area System as a whole, recommendations for a system wide fee system are also presented.

## FEE LEVELS AND STRUCTURE

### Objectives of Fees

Various objectives exist including:

- *Cost recovery*, which involves generation of sufficient revenue to cover part or all of tourism's financial costs (e.g. construction and maintenance of a visitor center, signposting, impact monitoring).
- *Generation of "profit,"* with the excess of revenue over cost being used to finance traditional conservation activities (at the destination or at other sites).
- *Generation of local business opportunities*, by the earmarking of fees to enhance site or experience quality.
- *Provision of maximum opportunities for learning and appreciation* of the natural resource, which may also involve low fees for nationals.
- *Visitor management* to reduce congestion and/or ecological damage, which would involve fees high enough to influence visitor behavior.

### The Fair Market Value

One of the critical criteria to evaluate for determining an appropriate fee level at the site is the fair market value. In order to determine the fair market value, surveys of visitors were conducted and a contingent valuation and contingent behavior analysis was performed.

#### a) Visitation and revenue trends

Before presenting an analysis of survey results, it is useful to describe the trends in visitation and fee revenue for context. Annual visitation to the REA has risen continuously since registration began in 1999 and reached a level of more than 60,000 visitors in 2006. Some of the increase is likely due to improved control by park staff, but visitation is expected to continue to grow. In addition to the high quality of the natural attractions of the reserve, it is also located on the principal overland route linking Southern Bolivia with Northern Chile. As facilities are developed and better tourism management capacity is implemented, it is expected that the quality of the visitor experience will increase. This will lead to a higher profile for the Reserve and a broadening of the market beyond the current dominant visitor profile and increased demand.

Regarding revenue trends, the entrance fee level for REA was established at Bs.30 per person for the pilot, which at the time was equivalent to US\$5. Although visitor numbers have increased dramatically, revenue growth has been more modest and in fact has started to fall. This is because while the fee level has remained a constant Bs.30, its value in dollars has depreciated.

#### b) Contingent valuation survey results

Figure 1 below shows results of the contingent valuation (CV) question of the survey which used the dichotomous choice (yes/no) format. Almost all respondents would be willing to pay an additional \$5. An equal number of visitors were each asked about increases of \$10, \$20,

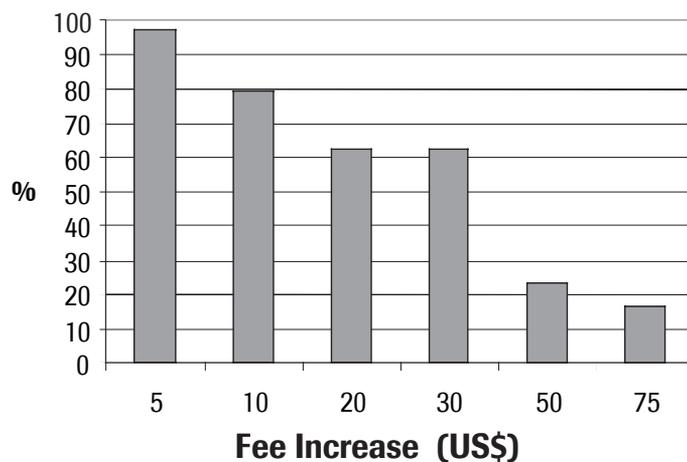
\$30, \$50 and \$75. As expected, the percentage of respondents indicating they would still visit decreases as the additional fee increases. However, the fee would need to be raised by more than \$30 before visitation would be reduced by half. This is noteworthy considering the modest income levels of half the sample.

More than 95% were willing to pay \$5 more than the current fee of Bs.80 (theoretically \$5). In other words, everyone would pay a \$10 entrance fee. 80% would pay a \$15 entrance fee and a majority would pay a \$25 or \$35 entrance fee.

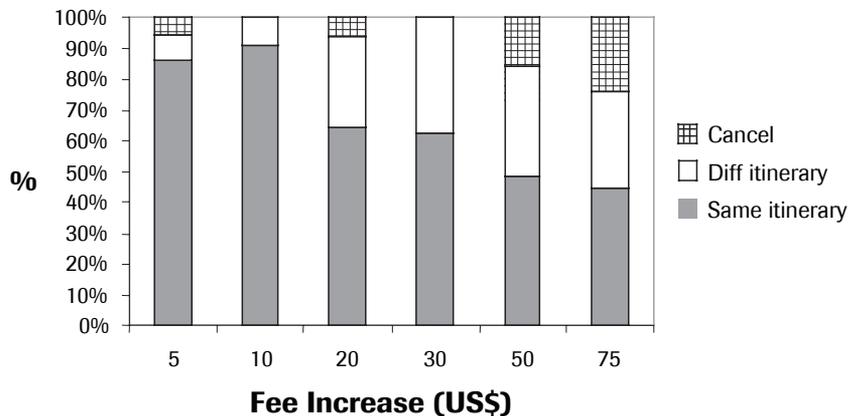
### c) Contingent behavior survey results

Contingent behavior takes another approach to estimating visitor attitude to fees, looking at how visitors would modify their itinerary in response to a given fee increase. In this case – keeping the same itinerary, changing the itinerary to spend less time in the REA and canceling the visit to the REA. The basic CB results are shown in Figure 2 below. They are somewhat similar to the (dichotomous choice) CV results above, though the percentages for “still visit/same itinerary” remain quite high even at the highest fees.

**Figure 1. Visitor Response to Fee Increase Using Dichotomous Choice CV Survey**



**Figure 2: Visitor Behavioral Response to Fee Increase**



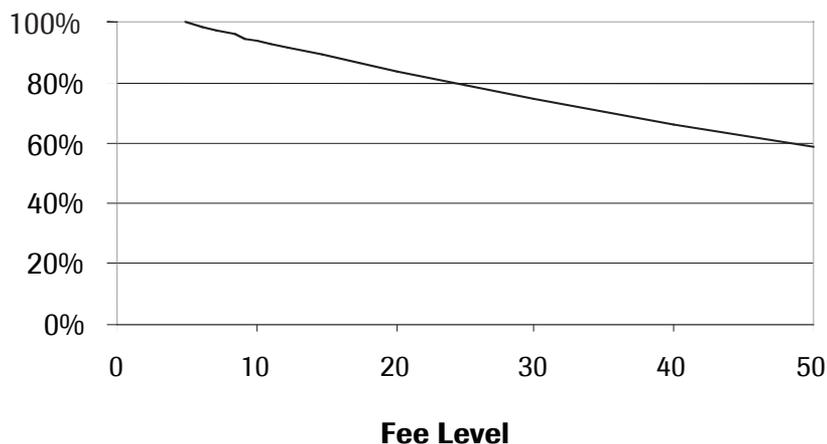
The following is further analysis of the contingent behavior results. Elasticity is calculated by multiplying the coefficient by the price. At the current \$5 level, the price elasticity is  $5 * -.012 = -.060$ . In other words, a 10% increase in price would lead to a 0.6% decrease in visitation.

The effect of fee on number of days visiting REA is calculated as  $e(+X)$ , where  $e$  is the base for natural logarithms and  $+X$  represents the constant and fee\*coefficient. This is shown graphically in Figure 3. Note that this is for total fee (including the current \$5), whereas the previous CV + CB results are shown for a fee

increase (excluding the current \$5). This graph is similar to the previous CB one above, but the model “smoothes” the line, and the effect of itinerary change is incorporated (a changed itinerary leads to fewer days at REA, but not a total cancellation).

Monitoring actual responses to fee changes at REA will allow us to evaluate which of these models best estimates/reflects response behavior. In the meantime, we can compare model results for general trends and conclusions. For example, they all tell us that there would only be modest responses to a \$5 increase.

**Figure 3: Predicted Impact on Visitation Levels in Response to Alternative Fee Levels**



**Table 1: Theoretical Projections of Visitation Levels and Income Generated for Different Fee Levels**

VISITATION LEVELS	INCOME GENERATED
50,000 (100%)	@ BS.30 = \$214,000
50,000 (100%)	@ \$5 = \$250,000
47,500 (95%)	@ \$10 = \$475,000
45,000 (90%)	@ \$15 = \$675,000
41,000 (82%)	@ \$20 = \$820,000
29,500 (59%)	@ \$50 = \$1,475,000

## RECOMMENDATIONS FOR TOURISM-BASED FEES

### 1) The REA Entrance Fee System

It is proposed that a new Administrative Resolution be published which contains the following key adjustments to the REA entrance fee system:

- **Increase the entrance fee to \$10 - \$15 for foreign visitors and establish a fee of the equivalent of \$1 in Bolivianos for nationals.** Based on the results of the extensive visitor surveys, it is clear that the vast majority of visitors are prepared to pay a much higher entrance fee than the current BS.30. This is especially true if they can see evidence of the fee they are paying being used to protect the REA. Figure 3 indicates that visitor numbers would not be seriously affected even if the fee were \$20. However, although this might be an appropriate fee to charge once there is visible investment in tourism management in the Reserve, it is likely that to raise the fee to that level in the near future would cause some degree of resistance from some visitors and more vocal dissent from tour operators as they may fear losing demand.

The lower fee for Bolivians is to demonstrate that the Reserve is accessible for Bolivians and to encourage visitation so as to strengthen the value of the Reserve in peoples' consciousness and promote environmental education opportunities.

Notice of a minimum 6 –12 months is recommended between announcing the resolution and the implementation date for

tour operators to adjust their pricing and budgeting and to allow time for the change to be communicated to the market place via guide books and travel agencies. Local tour operators indicated that their planning cycle begins in October, thus it is proposed that the change be introduced October 1st, 2004. This will enable tour operators to incorporate the new fee into their promotional materials and will allow time for a targeted public awareness campaign.

In order to provide a degree of stability for the tourism industry and SERNAP staff, these fees should remain valid for three to five years before being considered for modification. During this time, annual surveys of visitor perceptions, including of the fee level, should be carried out as part of an impact monitoring program.

Category	Fee
International Visitor	\$10 <sup>8</sup>
Bolivian visitor	Bs.10

- **Authorize that payment be made in US\$ or the equivalent in Bolivianos** on the date of entry to the Reserve. Official exchange rates will be communicated by radio from La Paz or Uyuni on a daily or weekly, monthly or annual basis as practicable. This will stem the losses borne by SERNAP due to devaluation of the exchange rate, bring Bolivia into line with other countries, provide consistency for visitors and SERNAP staff, reduce the risk of abuse of the system by tour operators or others.
- **Authorize direct management of revenues at site level.** Revenues should be distributed in the following fashion:

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8 This should be the minimum new fee level. If significant advances can be made in addressing priority tourism management investment needs in the Reserve in the first semester of 2004, then the fee should be raised to \$15 for international visitors.

REA Administration	40%
REA Emergency Fund	10%
REA Community Sustainable Development Fund	17%
Trust Fund SNAP	20%
Finance Ministry (IVA)	13%

- 1) 40% will be divided in order of priority between
  - a. Tourism management plan implementation
  - b. Capital investments and in REA administration capacity

\$105,000 per year should be considered a minimum investment level over the next five years in order to:

  - establish the minimum necessary level of tourism management to reduce tourism-related threats to acceptable levels,
  - increase the quality of experience for visitors and
  - increase the income generation opportunities for tour operators including local communities.
- 2) 10% in a separate REA account for contingencies and emergencies for use when tourism income may be sharply reduced or insufficient to cover basic costs.
- 3) 20% to a national level trust fund for the benefit of the Protected area system and support of other protected areas in the system, which do not have means of generating income. FUNDESNAP would be an appropriate home for this fund as an NGO (working closely with SERNAP) can more easily maintain consistency over long periods of time in the face of changing government priorities.
- 4) 17% for the creation of a community development fund. This fund will be

managed by a committee consisting of the Reserve director, two community representatives (one from the municipality of San Pablo de Lipez) and a local NGO representative. The fund will invest in projects that will benefit local communities inside and in the buffer zone of the reserve, which will enhance the compatibility of community activities with the management goals of the Reserve. This fund could be utilized as match for attracting additional investment funds from bilaterals.

Some, though not all, should be dedicated exclusively for spending in the Quetenas as it is expected that other communities in the REA's buffer zone will also benefit from this investment. The proportion earmarked for the Quetenas, because of their special role in Reserve conservation should be up to 25% of REA's net SISCO income in 2003 levels which corresponds to a previous provisional agreement with SERNAP. It is essential that guidelines for investment by developed for this fund to ensure its compatibility with REA management goals.

- 5) The current 13% Value Added Tax being returned to the Finance Ministry will continue as a contribution of the protected area system to the government's central funds;

These percentage distributions should not be permanently fixed but subject to modification by REA management. These distributions should be reviewed after five years, a period by when consistent investment in tourism management

should produce visible and tangible results and tourism should be by then, brought under control.

A table showing the distribution should be made visible in public places, in SERNAP offices and on informational materials made available to visitors. Also, details of how this revenue is invested should also be made available to the public including the tourism sector in order to inspire confidence in the fee system and support for the Reserve administration.

It is crucial to ensure that the REA not be assumed to be self sufficient because of its current income generation capacity as tourism can easily fluctuate enormously for reasons beyond the control of Bolivia. The minimum budget for protection should continue to be financed by SERNAP Unidad Central so as to provide a bare minimum in capacity should visitation collapse, and to avoid over dependence on tourism.

- **Entrance fee ticket sales points should be moved out of the Reserve** (with the exception of the Laguna Verde Control). This would reduce administration costs and reduce security risks to staff and resources. It would also improve efficiency of collection.
- Tickets should be sold from the clock tower in Uyuni, the SERNAP offices in Uyuni and Tupiza and should be made available to licensed tour operators in batches of up to 50 at a time with advance payment
- Tickets should also be sold at the Laguna Verde control for visitors arriving from Chile. Though it is recommendable that over time, an alternative be sought in order to limit cash accumulation in the Reserve for security.

- Visitors who arrive at the reserve control point without a ticket should be charged double the relevant fee. Any tour operator who brings visitors to the reserve without a ticket should also be charged a fee equivalent to the sum of all the fees charged to their offending passengers. Offending twice in this way should be sanctioned by the REA administration with potential non-renewal of the tour operator's annual operating license.

## 2) Other Tourism-Based Income Generation Mechanisms

- **Complete design, inc. consultation and implement tour operator annual licensing process** in accordance with Article 120 of the Regulation

Year one - No charge

Year two - \$200 per company plus \$50 per 5 seat vehicle

This system should be integrated with a possible categorization process being discussed currently which would create two or three classes of operation based on quality of interpretation and group size and possibly other criteria such as age of vehicle.

- Create legal framework and regulations for strengthening community-tour operator business for accommodation, food provision and souvenir shops.
  - Create conditions that make it attractive to tour operators and community members to utilize the lodge at Quetena Chico.
  - Establish a second lodge between Laguna Verde and Laguna Colorada with community-private sector management

in accordance with SERNAP zonation and guidelines. SERNAP's legal counsel has deemed that the legal framework of a concession is not socially or politically viable. However a license framework has been identified and is being used to facilitate the development of a joint venture ecolodge (IDB/ PRODEM/Fremen/Quetena Chico) south of Laguna Colorada.

- Improve road conditions between Quetenas and other REA visitor sites.
  - Build Visitor Center in Quetena
  - Build toilet facilities in association with Visitor center
  - Establish souvenir shop in association with visitor center.
- **Establish mechanism for soliciting and receiving donations** - “Friends of Eduardo Avaroa” or “Friends of Bolivia’s Parks.” This should be managed by FUNDESNAP and can be based on the experience developed in Baja California and Galapagos with Conservancy partners.

- **Require purchase of special permit for professional filmmakers wishing to film in the Reserve.** Commercial productions should pay a fee of \$500 per day of presence in the REA and provide a refundable deposit of \$2000 returnable when copies of the edited film are presented to SERNAP.

### 3) System-wide Recommendations

Tourism-based revenues can be a hugely important boost to the management capacity and biodiversity protection of protected areas, leading to international recognition, improved funding opportunities and greater demand for visitation which in turn leads to greater revenues without necessarily increasing visitor numbers.

The system and mechanisms established and proposed for the REA should be replicated at all the other protected areas in the system where visitation is at a level sufficient to justify fee collection. These are currently: Amboro, Carrasco, Sajama, Madidi and Cotopata.

#### Lessons Learned, as of February 2007

- Tourism entrance fees can improve protected areas management, but only if they are appropriately managed
- It is important to have well-defined policies for revenue collection and management, while maintaining flexibility in program design and implementation
- While revenue from tourism fees should be shared with communities, valuing biodiversity can be complicated as it may unintentionally devalue those environmental benefits that are not assigned specific economic values
- Sharing economic benefits with communities without strengthening their own organizational and management capabilities can create risks for protected areas management
- Pilot projects must be managed at the highest level of reserve administration and include opportunities to make adjustments when necessary; otherwise, the pilot project, as well as the entire process, can be put at risk
- Transparency in managing financial tourism revenues generates trust for improved protected areas management and enhances stakeholder commitments to conservation.

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# ENTRANCE FEES AND THE FINANCIAL SUSTAINABILITY OF COSTA RICA'S NATIONAL SYSTEM OF PROTECTED AREAS

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*Irene Suárez, The Nature Conservancy*

## SUMMARY

This study describes the progress and the experience of a project to validate and implement a methodology that will enable the National System of Conservation Areas of Costa Rica (SINAC) to estimate entrance fees and rates for specific services provided by the different protected areas under its responsibility. In this fee-setting process, the various working groups organized meetings with different stakeholders and used economic valuation methodologies to determine the rates that would be acceptable to stakeholders. The study began with a training process in November 2006; its application in the pilot areas will conclude in March 2007. The application of the methodology at national level will continue for the rest of this year and negotiations with tourism agencies will begin in the first months of 2008. The sale of tourism packages with the new rates should begin in 2009. This process of setting fees has been successful thanks to the combination of two key factors: the commitment of SINAC staff members to learn and familiarize themselves with the methodology, and SINAC's commitment to promote the process. In the medium and long term, the project will benefit from improved financial accounting systems that will more precisely reflect the resources available and where they were generated in real time. It will also help to secure ongoing political and institutional commitment to the process of negotiating and collecting the entrance fees and reinvesting the profits in the protected areas. Given the fairly high cost of these studies, mechanisms should be found to facilitate follow-up and subsequent reviews by SINAC staff members. Not all the protected areas have the necessary technical conditions for developing tourism, and therefore other alternatives should be considered, including payments for water, biodiversity and carbon sequestration services.

## 1. DESCRIPTION OF THE CASE STUDY

The National System of Conservation Areas of Costa Rica (SINAC) is the government institution responsible for managing the country's renewable natural resources. SINAC uses a decentralized and deconcentrated management model that encourages citizen participation. It exercises control over forests, wildlife and protected wildlands. Administratively, SINAC is a system with national coverage, consisting of a General Directorate and 11 Conservation Areas with Regional Directorates.

The National System of Conservation Areas was created in 1998, under the Biodiversity Law N° 7788. Article 42 of this law authorizes SINAC to charge differential rates to residents and non-residents in the different protected areas (PAs). The setting of entrance fees should reflect the operational costs for each protected area and the costs of the services provided to visitors. The fees should also be reviewed each year and adjusted in line with the consumer price index. Income generated from the fees is deposited into a special account established under the Law for the Creation of the National Park Service and distributed to the entire System, based on the concept of solidarity.

SINAC is responsible for administering several sources of funding including contributions from the National Budget (Regular), the National Parks Fund, the Forest Fund, the Wildlife Fund and Private Resources (Table 1).

**Table 1. Percentage contribution by funding sources to the SINAC budget**

Funding Sources	2005	2006
Regular Budget	44	44
National Parks Fund	32	35
Forest Fund	2	2
Wildlife Fund	0	0
Private Resources	22	19
<b>TOTAL</b>	<b>100</b>	<b>100</b>

The National Parks Fund provides 32-35% of SINAC's annual income, while the National Budget continues to make the largest contribution.

**Table 2. Types of contributions (in thousands of dollars) from the National Parks Fund**

Type of contribution	2005		2006	
Entrance fees and sales of goods and services	5,218	60%	6,849	67%
Other income	3,434	40%	3,375	33%
<b>Total Income</b>	<b>8,652</b>	<b>100%</b>	<b>10,223</b>	<b>100%</b>

The table above shows the composition of the National Parks Fund, in which the share of income generated from entrance fees and the sale of goods and services is significant. At present, 34 PAs participate in the collection of entrance fees and the sale of goods and services, which are used to cover the needs of approximately 70 PAs. To address this situation, SINAC began to establish a fee system for the protected areas aimed at giving them greater financial autonomy and increasing the investment resources available for improving services for tourists. In 1999, under the provisions of the Biodiversity Law, a technical study was initiated to support the establishment of differentiated rates according to Article 42.

Prior to applying this instrument, a team visited some local organizations to explain the purpose of the study. Based on the first results from the PAs that were visited, negotiations were begun with local, regional and national tourism chambers. One of the commitments made in relation to the increased fees was to reinvest the additional funds in the PAs that generated them. The final result was Decree N° 30355-MINAE of May 2002, concerning the setting of fees. Annex 1 includes two tables from the aforementioned decree. The first table shows the entrance fees to the PAs and the second shows the fees charged for other services.

## 2. PROJECT ACTIVITIES

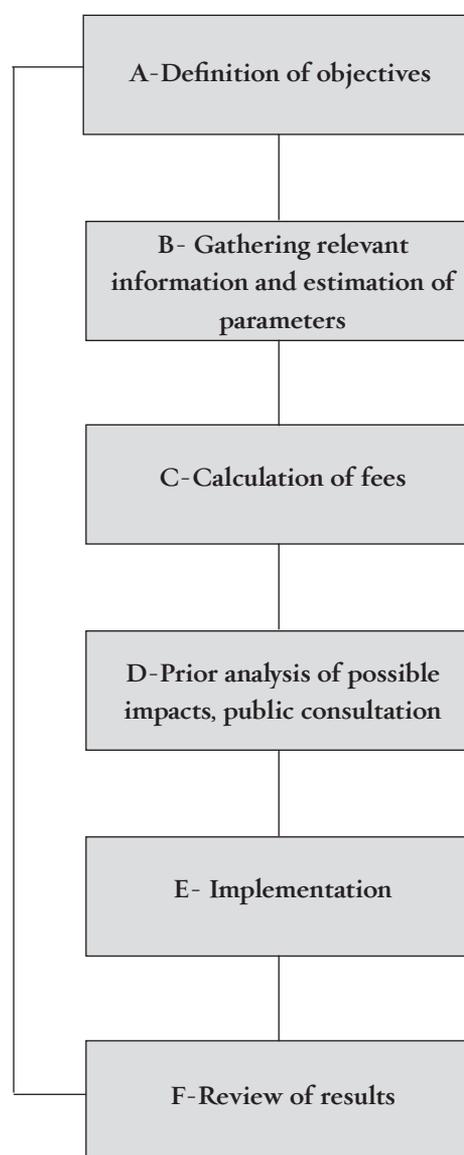
One of the results of SINAC's Financial Strategy was the identification of all the fees and rates that the System is responsible for collecting. Of the 25 types of fees, 13 are directly related to the tourism sector. However, since all the fees and rates were out of date, a new study was needed to update them.

With the formulation of the Project "Sustainable Tourism in Protected Areas", *The Nature Conservancy* was contracted to prepare a methodological proposal for establishing entrance fees for Costa Rica's PAs, and the consulting firm ECOTIERRA was sub-contracted. The purpose of this consultancy was to validate and implement a methodology that would assist SINAC in estimating entrance fees and rates for the provision of specific services in the different PAs under its responsibility, taking into account the specificities of each PA as well as its role within SINAC's administration. In this process to set fees, various working groups were organized and meetings were held with different stakeholders, using economic valuation methodologies to determine the rates that would be acceptable to all the stakeholders.

The proposed methodology (Figure 1) was presented in 2004, with case studies in Manuel Antonio, Poas and Corcovado National Parks.

Since none of its staff members were trained in economics or statistics, SINAC lacked the institutional capacity to implement the methodology. For this reason the consultants were asked to adapt the methodology so that it could be applied by SINAC staff with only basic knowledge of statistics in a way that would not diminish its technical rigor. This meant that points B and C of Figure 1 needed to be better adapted to the SINAC staff's technical level. Once the methodology was adjusted, a work plan was defined to reapply

Figure 1. Diagram of the methodology used to calculate fees in PAs.



Source: Alpizar and Madrigal, 2005

it. The purpose of this adjustment and its application was to build capacity within SINAC and use the methodology in three pilot areas. With resources from the Project "Sustainable Tourism in Protected Areas of Costa Rica" - a loan agreement that is being negotiated with the Inter-American Development Bank (IDB) - the study on tourism-related fees will be implemented throughout the System of protected areas.

The design of the Project “Removing Barriers to the Sustainability of Protected Areas in Costa Rica”, with resources from the Global Environment Facility (GEF), included carrying out studies on non-tourism related fees and rates in the PAs, such as permits for the use of salt flats and for installing communications towers.

The work plan established with TNC for the application of the methodology has involved several activities, including the selection of three pilot protected areas (Chirripó, Corcovado and the Braulio Carrillo- Barva Sector National Parks), the formation of two work teams at the central level (4 staff members) plus another group with personnel from eleven conservation areas and the three pilot PAs. Staff members from the Chirripó and Braulio Carrillo (Barva sector) pilot PAs are receiving training on gathering and computerizing data in the field and work sessions are being organized with stakeholders to inform them about the process and to listen to the opinions of the local communities surrounding the PAs. Once this stage has concluded and the staff members have been trained, the methodology will be applied to the rest of the System.

One of the objectives of this study is to generate internal capacity in SINAC so that fee adjustment is an ongoing exercise, given that it is a long-term process. The first participatory study to be carried out with all the PAs that receive visitors took nearly three years. Fee collections began during the fourth year.

### **3. PRELIMINARY RESULTS**

The present study began with a training process in November 2006 and its application in the pilot areas will conclude in March 2007. Preliminary data on fees is already available for two pilot areas and the staff members that have participated in the process are familiar with the methodology, which they consider easy to apply. National application of the methodology will be carried out during the rest of the year and negotiations with tour agencies will take place during the first months of 2008 so that these agencies can begin

selling packages for 2009 with the new fees. This process has been successful thanks to the combination of two key factors: the commitment of SINAC staff members to learn and familiarize themselves with the methodology and SINAC’s commitment to promote the process.

### **4. CURRENT CHALLENGES AND PROPOSED SOLUTIONS**

To ensure the complete success of the study on entrance fees and rates, work is under way on the following essential aspects:

1. Improving the financial accounting systems so that these show the available resources more precisely and where they were generated in real time, in a way that is transparent and can be shared with all involved.
2. A political and institutional commitment to continue with the process of negotiating and collecting fees and reinvesting the profits in the PAs.

### **5. LESSONS LEARNED**

1. Legal backing was essential for initiating the process to determine fees charged to visitors to the protected areas and the conservation areas. In Costa Rica, the relevant legal framework is contained in Article 42 of the Biodiversity Law.
2. It is important to raise awareness about the need to conduct these types of studies periodically, to avoid outdated fees.
3. Given the fairly high cost of these studies, mechanisms should be found to enable SINAC staff to carry out monitoring and subsequent reviews more easily.
4. Since not all the PAs have the technical conditions necessary for promoting tourism, a balance should be maintained between conservation and income generation objectives.

5. Since some PAs are not suitable for tourism, other funding options should be considered, such as collecting payments for water, biodiversity and carbon sequestration services, among others.

The response of the different groups involved in the conservation of the areas varies, according to their particular interests. For example, the more “extreme” conservation groups completely reject opening the areas to tourism and pressure for the fees to be as high as possible to discourage visitors. Other groups see ecotourism as a means of subsistence and therefore do not oppose the charging of fees, since these provide incentives for tourism. However, they believe that fee amounts should not be in conflict with their interests. The dissemination and consultation workshops sought

to establish negotiation processes that would mediate between the extreme positions.

One complementary and essential exercise for the success of tourism is the establishment of a financial accounting system for fee collection to easily determine the impacts of the activities carried out with monies collected from visitor fees. In the case of Costa Rica, cashiers known as “tourism operators” are being hired and placed in the ticket sales offices of the PAs. These operators are required to have basic knowledge of administration and tourism and must be bilingual. The tourism operators are hired exclusively for this task and are audited periodically. At present, the PAs where tour operators are employed report the highest revenues and fee collection has increased substantially since this mechanism was introduced.

**ANNEX 10.1: Entrance fees to Protected Areas in Costa Rica, 2002**

Description	Fee for nationals (\$)	Fee for foreigners (\$)
National and resident visitors from secondary schools who visit PAs on tours or programmed excursions between the educational center and the PA.	0.50 per day	
Foreign non-resident children, 6 to 12 years old	0.50 per day	1 per day
National and resident children, 6 to 12 years old	0.50 per day	
Entry to Isla del Coco Marine National Park for non-resident foreigners, nationals and residents.	The equivalent in colones	25 per day
Volcán Poás National Park	1.2	7*
Volcán Irazú National Park	1.2	7*
Guayabo National Monument	1.2	4*
Grecia Forest Reserve, Children's Rainforest	0.8	4*
Braulio Carrillo National Park	1.2	6*
Tortuguero NP and Barra del Colorado NWR (1 day)	1.2	7*
Tortuguero NP and Barra del Colorado NWR (3 days and 2 nights)	3.6	10
Corcovado NP and Isla del Caño Biological Reserve (5 days)	6	17*
Corcovado NP and Isla del Caño Biological Reserve (1 day)	2	8*
Ballenas Marine National Park	1.2	6*
Piedras Blancas National Park	1	4*
Corcovado National Park and Isla del Caño Biological Reserve (Groups larger than 15 people)	4	14

Chirripó National Park (2 days)	5	15*
Chirripó National Park (for each additional day)	3	10
La Amistad International Park	1	5
Tapantí Macizo de la Muerte National Park (Tapantí Sector)	1	6*
Santa Rosa National Park	1.4	10*
Rincón de la Vieja National Park	1.2	6*
Junquillal National Wildlife Refuge	1.2	4*
Barra Honda National Park	1.2	6*
Palo Verde National Park	1.2	6*
Las Baulas Marine National Park	2	6*
Cabo Blanco Absolute Nature Reserve	2	8*
Diría National Wildlife Refuge National Forest	1.2	6*
Caño Negro National Wildlife Refuge	1	4*
Las Camelias National Wildlife Refuge	1.2	6*
Juan Castro Blanco National Park	1	4*
Volcán Arenal National Park	1.2	6*
Volcán Tenorio National Park	1.0	6*
Manuel Antonio National Park	2	7*
Carara National Park	1.2	8*
Playa Hermosa National Wildlife Refuge	1.2	6*
Tivives Protected Zone	1.2	6*
Cahuita National Park, Puerto Vargas Sector	1.2	6*
Hitoy Cerere Biological Reserve	1.2	6*
Gandoca - Manzanillo National Wildlife Refuge (on state property lands)	1.2	6*

Fees for other services		
These fees are not applied when the service is provided by private entities, through concessions or contracts with the State		
Description	Students with identification	Fee for Foreigners (\$)
Lodging in Protected Area facilities (per day)	2*	6*
Description	Investigators - Assistants and Students	Individuals
Lodging in Guanacaste Conservation Area facilities (per day)	10* - 6*	15*
Description	Daily	Monthly
Rental of research facilities in Murciélago, Centeno and Santa Elena sectors	10*	100*
Description	Investigators - Assistants and Students	Individuals
Lodging in Tempisque Conservation Area facilities (per day)	9* - 6*	12*

Description	Fee \$	
Osa Conservation Area: Bed fee per person in Corcovado National Park	8*	
La Amistad Pacific Conservation Area: Lodging per night in Chirripó National Park	10*	
Camping rights per day per person in ASP	2*	
Camping rights per day per person in Corcovado NP	4	
Talks	27*	
Description	Nationals and Residents	Foreigners
Camping rights per day per person in Chirripó National Park and La Amistad International Park.	The equivalent of 5 dollars in colons	5*
Description	Fee per hour \$	
Microcomputers: user fee per microcomputer	1*	
Microcomputers: For internet access	2*	
Parking: For each light vehicle	0,50*	
Parking: For each minibus	0,60*	
Parking: For each bus or other heavy vehicle	1*	
Description	Daily fee \$	
Laboratory installations	2*	
Storerooms: Use of storage facilities	2*	
Diving: Within the maritime zone of Isla del Coco National Park (per person)	10*	
Diving: Within the maritime zone of Isla del Caño Biological Reserve (per person)	4*	
Rental of tents for camping, per tent	7*	
Rental of boots and ponchos, per boot and poncho set	2*	
Rental of surfboards, per board	20*	
Rental of caving equipment: Applies in Barra Honda National Park (per person)	2*	
Conference rooms	13 dollars or the equivalent in colons	
Rental of luggage lockers	1	

