

# Ecotourism Development

A Manual for Conservation Planners and Managers

Volume II

# The Business of Ecotourism Development and Management

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Ecotourism Development – A Manual for Conservation Planners and Managers  
Volume II: The Business of Ecotourism Management and Development

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Ecotourism has become an important economic activity in natural areas around the world. It provides opportunities for visitors to experience powerful manifestations of nature and culture and to learn about the importance of biodiversity conservation and local cultures. At the same time, ecotourism generates income for conservation programs and economic benefits for communities living in rural and remote areas.

The attributes of ecotourism make it a valuable tool for conservation. Its implementation can:

- ❖ give economic value to ecosystem services that protected areas provide;
- ❖ generate direct income for the conservation of protected areas;
- ❖ generate direct and indirect income for local stakeholders, creating incentives for conservation in local communities;
- ❖ build constituencies for conservation, locally, nationally and internationally;
- ❖ promote sustainable use of natural resources; and
- ❖ reduce threats to biodiversity.

Some areas have greater potential for realizing the benefits of ecotourism than others. In areas with low visitation, the potential is not usually clear. In others, tourism may already be an important factor. In both cases, the ecotourism planning process is critical to achieving ecotourism's potential as a powerful conservation strategy.

Of course, not all tourism to natural areas is ecotourism. Nature tourism, as opposed to ecotourism, may lack mechanisms for mitigating impacts on the environment and fail to demonstrate respect for local culture. Nature tourism is also booming economically. Consequently, we are witnessing an onslaught of visita-

tion to natural areas that, in many cases, is undermining the values that make these areas attractive.

Because of their ecological value, protected areas, especially those found in the tropics and in less-developed countries, contain many of the world's greatest ecotourism attractions. These attractions may consist of rare or endemic species of flora or fauna, abundant wildlife, high indices of species diversity, unusual or spectacular geomorphological formations, or unique historic or contemporary cultural manifestations in a natural context.

Protected area managers, then, are faced with the challenge of controlling and limiting the impacts of unfettered nature tourism while at the same time deciding where and how to plan adequately for the development of ecotourism as a compatible economic development option.

By integrating ecotourism development into a systematic approach to conservation using The Nature Conservancy's Conservation By Design<sup>1</sup> framework, we can ensure that ecotourism is initiated only when it is the most effective strategy to achieve tangible, lasting results. The distinct but intimately interrelated aspects of ecotourism, conservation management and business development, must be fully understood by ecotourism planners and protected area managers before moving ahead with plans to implement ecotourism activities.

Conservationists have typically approached ecotourism with a limited understanding of business issues and an incomplete understanding of the management mechanisms that are available and necessary to ensure the sustainability of tourism in protected areas. Starting points for ecotourism initiatives have typically been guide training programs or lodge construction, which are almost guaranteed to end in failure. They have led to:

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1. *Conservation by Design: A Framework for Mission Success*. 2001. Arlington, Virginia: The Nature Conservancy.

- ❖ the creation of high expectations in communities that are seldom fulfilled;
- ❖ ecotourism activities becoming a drain on scarce NGO and protected area resources as projects struggle to reach break-even point;
- ❖ NGOs and protected areas being pulled away from their central conservation mission; and
- ❖ tourism destroying the natural attractions that originally drew visitors.

Similarly, nature tourism operators have often carried out their initiatives with an incomplete understanding of conservation issues and consequently have operated in an unsustainable fashion.

We now recognize that in order for ecotourism to be successful, conservationists need a greater understanding of business considerations; likewise, developers need a greater awareness of the management mechanisms that are necessary to ensure the sustainability of the activity. Combining both conservation and business perspectives is essential for a successful ecotourism program.

Protected areas may be state, private or community owned or administered, or any combination thereof. Funds for protected area management of any type are usually scarce in developing countries. As a result, these areas often lack the capacity to ensure that tourism generates the full range of benefits it should. Hence, in many areas opportunities for income generation for site conservation and local communities are under exploited and tourism may in fact pose a threat to conservation.

For ecotourism to fulfill its potential and generate sustainable benefits, protected areas must implement a planning framework to guide and manage the activity.

This manual focuses primarily on providing a set of criteria to ecotourism planners and managers at conservation NGOs to facilitate decisions with respect to ecotourism management and development. However, it should also be helpful to protected area specialists and managers of state-owned and community-owned reserves, as well as to other actors in ecotourism including tour operators and hotel developers, who seek greater understanding of the conservation implications of proposed activities. Additionally, it will be of use to investors considering ecotourism development proposals.

The manual consists of two distinct but related stand-alone volumes. Conservationists who are intrigued

by ecotourism and want a greater understanding of it, or who are considering ecotourism as a conservation strategy for a protected area, may elect to consult Volume I: *An Introduction to Ecotourism Planning*, Part I, initially for a brief overview.

For those who seek fuller understanding of the ecotourism management planning process or have decided that ecotourism may be right for their site, Volume I, Part II should be consulted. Part II: "Ecotourism Planning and Management" explains the process for ecotourism development and management planning from Site Conservation Planning and Preliminary Site Evaluation to Full Site Diagnostic, participatory ecotourism management planning and implementation of a plan.

Volume II, *The Business of Ecotourism Development and Management* provides orientation and guidance on both key conservation management and key business development strategies. Part I: "Key Strategies of Ecotourism Management," is an introduction to the critical elements of ecotourism management planning including zoning, visitor impact monitoring, visitor site design and management, income generation mechanisms, infrastructure and visitor guidelines, and naturalist guide systems. This volume may be usefully consulted to review options for mitigating tourism threats that may already exist at a site.

Volume II, Part II: "Business Planning for Conservation Managers," outlines the business planning process. It will assist conservation managers and planners to develop an understanding of business planning, to be able to promote viable business partnerships with communities or private tourism operators, and to contribute to the preparation of business plans.

Most chapters end with a *References and Resources* section that includes publications, organizations, institutions and useful web sites for investigating these themes further.

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**Part I**

# **Key Strategies of Ecotourism Development**

# Introduction to part I

Part I of Volume II introduces the six principal management strategies that form the backbone of an Ecotourism Management Plan (EMP). These strategies ensure that tourism activities contribute to the conservation goals of a protected area. However, most of them also have application for ecotourism development in any context, including in those areas that are not formally protected.

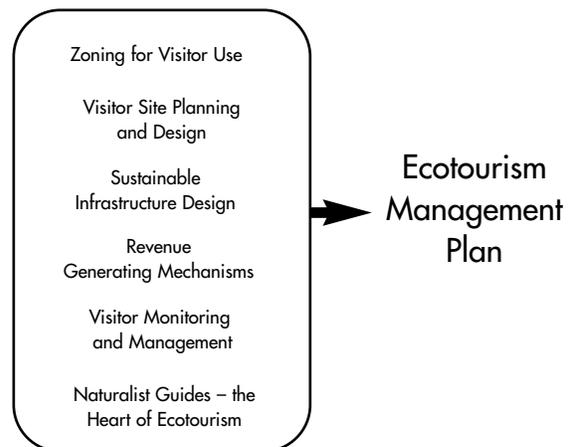
Each strategy introduced here is treated in greater detail in separate chapters of this volume. Each strategy could easily merit an entire manual itself; consequently, the authors have provided references and resources at the end of chapters to help ecotourism planners and managers obtain more information about management strategies. Nevertheless, the authors believe that the information presented in this volume is sufficient to develop an effective ecotourism management plan.

As you proceeded through the planning process for an ecotourism site, several ecotourism management strategy ideas may already have occurred to you. These may have been suggested by the Conservation Area Planning (CAP)<sup>1</sup> process or perhaps by activities going on at other sites in the region. The CAP process identifies several vital points: targets or systems (species, natural communities or ecosystems) and the stresses that reduce their ecological viability, sources of those stresses (threats), and the relevant stakeholders. It also eventually identifies the strategies that might be used in order to mitigate or eliminate the existing threats to the biological integrity of the site.

Alternatively, the General Management Planning process may have emphasized the need for establishing discrete visitor use zones or establishing mechanisms for generating income from tourism for site management.

To ensure that tourism at a protected area is sustainable, it is necessary to implement a strong and effective

**Figure 1 Key Ecotourism Management Strategies**



management program that involves all stakeholders in dynamic, creative ways. Figure 1 illustrates how diverse ecotourism management strategies contribute to an ecotourism management plan.

## **Zoning for Visitor Use**

The appropriate zoning of an ecotourism site is fundamental to all other management strategies. Zoning is the division of a site into a number of different sectors, or zones, for the purpose of distributing different types of use or non-use (i.e., protection) in the most appropriate places. The number and types of zones depend upon: a) the management objectives and priorities of the site; b) the quality and variety of the natural and cultural resources and the degree of alteration they have suffered; and c) the types of use that have been planned (many types of use conflict with one another and thus must be separated geographically). Each zone is managed to maintain or achieve a particular natural setting within which ecotourism and other activities take place, and thus, each zone has its own set of rules and regulations for activities carried out within its boundaries.

<sup>1</sup> Conservation Area Planning (CAP) is a new term for Site Conservation Planning (SCP).

Typically, a site or a protected area within it, has one or two zones dedicated primarily for public use (such as ecotourism) and two or three other zones where public use is of secondary consideration. Zoning is covered in greater detail in Chapter 1.

### **Visitor Site Planning and Design**

At most ecotourism sites, visitor use is concentrated in only a few locations, or “visitor sites,” both to facilitate its management and to limit its impact upon the natural environment. Because of the concentration of people and infrastructure, it is important that these visitor sites be well planned.

The main goals in good visitor site planning are:

- ❖ efficient use of the space by locating infrastructure in places where it will be most easily, safely and effectively used by the visitors, employees (e.g., guides, cooks) and site managers;
- ❖ minimal impact of visitor use and infrastructure development upon the surrounding environment; and
- ❖ planning infrastructure in accordance with the determined capacity of the natural area to receive a defined number of visitors (e.g., building a fixed number of cabins for the maximum allowable number of guests).

Site planning requires the preparation of an actual plan and topographic map on which all existing and planned ecotourism infrastructure is placed, be it an ecolodge, a trail, a campsite or a latrine. All infrastructure should be located to establish the geographical relationship with the significant natural and cultural features before any construction begins. Site planning also means that “best practices” for ecotourism activities and infrastructure must be followed.

A good site plan requires the professional services of a topographer and a landscape architect that are experienced in ecotourism development, or similarly experienced specialists. Chapter 2 provides more information about this strategy.

### **Sustainable Infrastructure Design**

Ecotourism implementation requires infrastructure different from that of a conventional tourism setting, particularly if visitor lodging or food service is involved. In natural areas, ecotourism infrastructure must blend in with the surroundings, use predominantly renewable energy sources and manage sewage and food waste without damaging the surrounding environment. In

the last 20 years or so, significant advances have been made that allow infrastructure planners and designers to minimize these impacts.

Several organizations have developed effective “best practice” guidelines for ecotourism architectural design and development. This topic is covered in detail in Chapter 3.

### **Revenue-Generating Mechanisms**

As we all know, money makes the world go ‘round. The major goals of ecotourism are to generate income for conservation and to benefit local communities and other stakeholders that are also participating in the ecotourism program in or near a protected area. The degree to which a visitor site produces income depends in large part upon its importance as a tourism destination and, secondarily, upon its management and marketing capabilities.

In order to generate revenue, the following questions must be answered:

- ❖ Which mechanisms are needed to generate revenues?
- ❖ How should revenues be managed?
- ❖ How should income be spent?

It is important to recognize that income generation should never become an end in itself. The ultimate goal is site conservation. If adding another ecotourism activity to increase funding for a site is going to interfere with effective long-term site conservation, then it should probably not be carried out.

There are many ways to generate income in an ecotourism site, some of which may not apply to all situations. Chapter 4 discusses income generation activities and the management conditions that must accompany them to be successful.

### **Visitor Impact Monitoring and Management**

Every time a visitor sets foot in an ecotourism site, he/she causes a negative impact. This is an unavoidable fact. The job of ecotourism managers is to minimize those impacts and ensure that, via ecotourism management strategies, the positive impacts outweigh the negative ones. Monitoring and managing visitor impacts are fundamental ecotourism management strategies; unfortunately, they are also ones most frequently left unattended. If the effects of ecotourism activities on the site’s natural environment and on the surrounding communities are unclear or unknown, then there can be no certainty of success.

Careful monitoring of impacts, both positive and negative, needs to be a primary activity of a site's overall management plan. This costs money and requires trained personnel and the assistance of interested stakeholders. The different ways impact monitoring can be accomplished are addressed in Chapter 5.

### ***Naturalist Guides – the Heart of Ecotourism***

Most ecotourism takes place in remote natural areas where it is typically not feasible for visitors to fully experience the attractions without the accompaniment of trained, knowledgeable guides. Even in more easily accessible areas, the success of ecotourism depends in large part on the abilities of naturalist guides to interpret the environment in ways that inspire and educate visitors. Guides can also help to monitor the impact of tourists when accompanying them.

It is crucial for protected area managers to establish a guide licensing system because naturalist guides can:

- ❖ significantly enrich the visitor experience through education and consequently
  - a) create new supporters of the site's conservation goals and
  - b) generate additional demand for tourism in the area;
- ❖ ensure that the negative impacts of visitation are minimized and that positive impacts are maximized;
- ❖ generate income for themselves and for others in local communities;

- ❖ strengthen links between conservation and community development goals;
- ❖ increase the safety of visitors; and
- ❖ be additional eyes and ears for protected area administrations and proxies for protected area management.

Because the role of naturalist guides is so very important to an ecotourism program, a site's administrators need to effectively manage guides' involvement with the site to ensure that their activities conform to ecotourism standards. There are two basic mechanisms to accomplish this:

- i) provide mandatory training of all naturalist guides who work within a site; and
- ii) license all naturalist guides who work in the site, thus maintaining control over their activity.

Chapter 6 discusses in greater detail how to best utilize naturalist guides as an effective ecotourism management strategy.

Through implementation of each of these ecotourism management strategies, a protected area will be well positioned to harness the potential of ecotourism as a force for conservation and sustainable community development.

# Chapter 1

## Zoning for Visitor Use

### Introduction

The appropriate zoning of a protected area is fundamental to all other management strategies. Zoning is a mechanism for assigning overall management objectives and priorities to different areas (zones) within the site or protected area. By assigning objectives and priorities to these zones, planners are also defining what uses will and will not be allowed. These parameters are usually based upon the characteristics of the natural and cultural resource base, the protected area objectives (determined previously) and political considerations. The decision to guide public use using ecotourism principles is a type of political decision that affects zoning. Managers guide their day-to-day decisions about the area's operations based in part upon the zoning structure.

The initial zoning for a protected area is usually determined in the General Management Plan (GMP). However, although ecotourism may be identified in the GMP as the desired public use, current information may be insufficient to define where public use zones should be located.

For example, a well-visited waterfall in an area may be an obvious choice for a public use zone in the GMP process, but it may not be until after a Full Site Diagnostic (see Volume I, Part II, Chapter 3) takes place that more worthy attractions outside of pre-established public use zones are identified. Community members and tour operators might, through stakeholder consultations, identify important but previously unexploited attractions, such as a salt lick that attracts parrots on an isolated riverbank.

Consequently, it may be necessary to modify the initial zoning of a protected area following completion of an Ecotourism Management Plan (EMP). Of course, it may be that some potential ecotourism attractions should not be made accessible to visitation because of their vulnerability to erosion or destruction.

In this way, zoning for ecotourism should be totally integrated into the overall zoning scheme for an area and should be compatible with the site's management objectives as applied to those zones.

The zoning system will determine the natural conditions for which the different sectors of an area will be managed. Some zones may be managed to maintain a very fragile ecosystem where even highly managed, low volume visitation may not be an option. However, well-managed ecotourism activities provide managers with more options, and thus ecotourism might be permitted in some zones where conventional tourism would not be.

Generally speaking, most protected areas provide for two or more types of public use zones. Intensive Use Zones are where most of the high impact, concentrated visitor use takes place, and Extensive Use Zones are where more low impact, generally trail-oriented visitor use occurs. Other zones usually set aside parts of the protected area as "untouchable" zones where very little or no public use occurs, either due to remoteness or resource fragility.

Intensive Use Zones are usually quite small in area, representing less than one percent of a protected area's territory. Extensive Use Zones are generally larger but still represent only a minor part of the site's overall territory. Other zones may permit some ecotourism activities on a highly limited and controlled basis, frequently requiring a permit.

### Defining the Zoning Scheme

The first step to defining a zoning scheme is to evaluate the current situation:

- ❖ Does the GMP establish a zoning scheme? Is it adequate for the ecotourism objectives that planners have established?



As a general rule, high-end visitors spend more money but also require more and better quality facilities that have the potential for causing more environmental impact. The lower-end visitor spends less money but requires only basic services and infrastructure. The more adventurous and lower-end visitor is more likely to utilize sections of the protected area/ecotourism site that are distant and relatively undeveloped.

If ecotourism is to be fully implemented, protected area managers must ensure that tourism activities are low impact and extremely well managed. If these conditions are met, then ecotourism significantly widens the scope and locations for public-use activities. High-end visitor infrastructure may need to be located in a separate zone to avoid possible conflicting uses. Planners and managers must balance the need to generate income with the potential negative impacts and

positive economic and educational impacts that can occur with ecotourism.

The process in Box 1.1 outlines the steps required to develop a tourism zoning system for a defined area.

Remember that a zoning system is not a permanent fixture. Like any plan, it should be modified as conditions change.

### **Zoning Attributes**

When determining zones, one should take into consideration their unique biophysical, social and administrative/management factors. It is a management principle that use in zones not managed for specific attributes will gravitate toward busy, more-developed settings with easier access and a high density of people with

#### **Box 1.1 Process for Establishing a Tourism Zoning System**

STEP 1: Refer to the General Management Plan (GMP) for the zoning, special areas and locations where tourism could be an appropriate strategy. In general, the GMP should be the most important guideline for developing any activity in a protected area.

STEP 2: Obtain a base map of the protected area/ecotourism site. While the map should be large enough to cover the entire area, it must also contain sufficient detail to allow you to locate specific ecotourism attractions and infrastructure in relation to significant physical features, such as rivers and streams, mountains and hills, primary forest vs. altered vegetation and agricultural lands, etc. If a zoning system already exists, the map should include those zones and their boundaries. Locate sensitive or environmentally fragile sites

STEP 3: Locate on the map particularly sensitive or environmentally fragile sites.

STEP 4: What sorts of experiences and/or situations do visitors wish to have while at the site (e.g., small groups, large groups, few encounters with other visitors, etc.)? Indicate where proposed new infrastructure such as trails, overlooks, campgrounds, visitor centers, guard stations and ecolodges would be located.

STEP 5: Compare the proposed location of visitor attractions and infrastructure with the location of environmentally sensitive sites as well as with the present zoning system. Are there real or potential conflicts? If visitor sites are located at or near fragile sites, can management activities ensure that visitor impacts will not occur, or will be within acceptable limits? Is the present zoning system compatible with what you are proposing for visitor use?

STEP 6: After evaluating the relationship of visitor attractions with other potentially conflicting situations, determine the final location of visitor infrastructure and attractions. These locations should be verified by site visits.

STEP 7: A preliminary zoning system should be prepared that incorporates recommendations for visitor use zones. Intensive use zones might be designated at those places where high visitor concentrations occur, e.g., visitor centers, campgrounds, etc.; extensive use zones could be designated to cover the sites where visitor use is more dispersed. If possible, have two teams prepare a zoning system and then compare results to come up with the best one.

STEP 8: Compare your proposed zoning system with the preexisting system. Do changes need to be made in one or the other in order to come up with a definitive zoning system? Consider how visitor access and flow will work under your proposed system. Propose your system to the site's managers and staff. Do they agree?

STEP 9: Develop a final zoning system. Describe each zone following the format described under "Zoning Attributes." Include biophysical, social and management attributes for each zone; these will guide you in determining management guidelines for each zone.

STEP 10: Define the rules and regulations that will apply to the specific visitor sites and zones. What is the management capacity of the administrative authority? Is it capable, or will it be capable within a few years, of effectively managing a complex ecotourism program, or should it be kept simple?

corresponding increased evidence of human activity. A well-planned zoning system improves the quality of the visitor experience and provides more options that can enable tour operators to adapt to market changes (Wallace, 1993).

### **Biophysical Attributes**

The natural resources of a zone should be described in terms of their sensitivity and ecological importance. The abundance and density of unique, endangered, endemic or charismatic species that may be important for the zone should be noted.

How natural or intact is the zone, and what evidence of human impact is there? How much scenic beauty is in this zone? What distance from human habitation or difficulty of access is involved? What sorts of human mobility will be allowed?

### **Social Attributes**

Given the biophysical limitations, what type of experience do you wish to offer visitors or other users in the zone?

What user density do you wish to provide? What would be the mix of different types of visitors (e.g., national visitors, international visitors, local people, scientists, etc.)?

What kinds of norms do you expect to govern group movement (e.g., distance, length of stay in visitor sites, waiting time before going to a site, etc.)?

What do you expect to be the group sizes, number of groups per day, types of use and equipment that would be permitted in the zone?

#### **Box 1.2 Zoning Scheme for El Imposible National Park, El Salvador**

##### **Intensive Use Zone**

General Objective: Provide recreational and educational opportunities within a semi-natural environment but with high concentrations of visitors; provide economic opportunities for local people.

Description: This zone consists of natural or altered sites that have natural or cultural attractions and outstanding scenic beauty. Its topography allows limited vehicle access and support facilities. Although this zone should be maintained in as natural a state as possible, high concentrations of visitors and facilities are acceptable, including toilets, interpretive trails, vehicular access routes for park vehicles only, visitor centers, and camping and picnic areas. Management presence at this zone will be a high priority in order to maintain impacts at acceptable levels.

##### Rules and Regulations:

1. Visitor use of this zone will have few restrictions other than paying the park entrance fee.
2. Campfires will be permitted only in those sites with designated fireplaces.
3. Firewood collection is prohibited in this zone.
4. Use of soap is prohibited in the rivers.

##### **Moderate Use Zone**

General Objective: Offer educational and recreational opportunities within a relatively natural environment, with medium concentrations of visitors.

Description: Consists primarily of natural sites but with some sectors that have some degree of human intervention; contains representation of significant natural and cultural features. Serves as a transitional zone between high densities of visitors and

those zones with a minimum of public use. Facilities will not have the same level of development as those in the Intensive Use Zone. Topography will limit public use, and therefore the zone will require less attention on the part of park personnel.

##### Rules and Regulations:

1. Campsites with minimum facilities are permitted.
2. Los Enganches, Mirador La Algodonera-Rio Mixtepe are accessible only when visitors have a guide and a permit.
3. All trash must be removed by the visitor.
4. Campfires are prohibited except in exceptional situations.

##### **Primitive Use Zone**

General Objective: Protect the most natural park environments and offer recreational opportunities characterized by a minimum of environmental impact and very few group encounters.

Description: Consists of a natural site with a minimum of human intervention. Contains unique ecosystems, scientifically-valuable species of fauna and flora that can tolerate limited use by small groups. Roads, improved trails and permanent visitor infrastructure are excluded from this zone.

##### Rules and Regulations:

1. Public use is limited to special groups that have requested a permit in advance and that are accompanied by a park ranger.
2. Camping is permitted only in sites designated by the park administration.
3. Visitor groups are limited to a maximum of six people.
4. Campfires are not permitted.

source: SalvaNatura, 1997

### Box 1.3 Zoning Spectrum: Proposal for Galapagos National Park

**Rural.** Might include all areas adjacent to the park where the park is working with private landowners to develop activities such as lava tubes tours on Santa Cruz or equestrian and hiking trails that occur on a combination of contiguous park and private lands.

**Intensive/Recreational.** Might include developed recreation areas in the park near local communities or park-related sites within communities. This could include guard stations and visitor centers, port or transportation facilities, and other sites that include park personnel and activities and are designed for large numbers of visitors.

**Intensive/Natural.** Would include visitation sites with outstanding wildlife, ecosystem, natural, or cultural history value but with only moderate resource constraints. Higher use levels would be permitted (group size would still be site specific but tend toward larger groups) at sites of varying distances from port towns.

**Extensive/Natural.** Would include sites with outstanding wildlife, ecosystem, natural or cultural value, with more severe resource constraints (again, site specific) limiting group size to smaller groups, or, conditions permitting, where a more leisurely experience with fewer encounters is desired.

**Semi-primitive.** Backcountry areas or remote beaches, usually on larger inhabited islands, more than one mile from any road or motorized beach landing area. Areas where foot, animal or non-motorized boat transport are required. Risk, challenge and required skills are greater. Resource constraints are low to moderate. Encounters with other visitors are kept low and both permits and park service orientation or special guides are required.

**Pristine/Scientific.** Islands or parts of islands where ecosystem value is at its highest with no or very few exotic species introductions. Usually remote and uninhabited with severe resource constraints. Visits are very limited, usually but not always confined to scientists. Requires permits in advance and guides specially trained in low impact techniques. There would be many strict regulations.

The following is a more complete description of the semi-primitive zone, which would be new for the Galapagos National Park.

#### **Semi-primitive zone:**

**Management Objectives:** To allow those visitors who seek a more self-directed or individualized experience (using outdoor skills in a natural setting) to have access to portions of the park where many natural features and values exist but where concerns about species introduction are pressing and can be controlled more easily due to the proximity of ranger stations. To also reduce the pressure on intensive/natural zone visitation sites by dispersing opportunities for visitors wishing alternatives to traditional guided tours.

**Experience Opportunities and Setting Attributes/Activities:** Hiking, camping, sea kayaking, volcano climbing, wildlife viewing and nature study. There is the opportunity to use outdoor skills; moderate levels of risk and challenge and physical stamina are required.

**Physical Setting:** Remote, generally several miles away from traditional visitor sites or transportation corridors, in natural terrain that may have some mixture of endemic and exotic species but very little other evidence of human activity. Rugged mountains, scrub forest lava fields or remote beaches may all be found in such a zone.

**Social Setting:** Groups will be no larger than five persons and all trails and campsites will have site quotas so that encounters should not exceed two other parties in a two-day period.

**Managerial Setting:** Permits are required and given on a first-come first-serve basis. Itineraries are prepared and campsites assigned. Length of stay is from one to two days at any one site. Ranger patrols are regular, but their contact with visitors is optional and brief. Prior to entry, visitors will watch a fifteen-minute videotape on low-impact techniques and backcountry regulations as well as undergo a check for exotic plant material and proper equipment.

source: Wallace, 1993

What skill levels would be required before a visitor would be allowed to enter the zone? What are the risks associated with entering the zone?

In zones where local residences are near visitor areas: What are the rules for tourists? Are they allowed to enter the areas where local residents live (i.e., do communities want visitors in their homes and fields)?

Do local residents prefer that their photographs not be taken in these areas (or that a fee be collected for photographing)?

Do local teachers prefer that tourists not visit nearby schools during class time?

In general, what activities are appropriate for the zone? Such zoning can give local residents the ability to control



In the Galapagos, intensive use zones allow a high concentration of visitors in some areas, while most of the park is strictly off limits to tourist visits.

tourist activity so that there is the desired balance of privacy versus interaction.

### ***Administrative Attributes***

In order to distinguish between the experiences offered and the permitted uses in the different zones, you must describe the necessary levels of protection and management in each zone and the rules and management actions needed to effectively control the types of activities you wish to have take place there.

What degree of autonomy will visitors have in the zone? Will they need permits? Reservations? Can they leave the trails? Do they need a guide? Can they stay as long as they want? How much patrolling will there need to be in the zone?

What kinds of infrastructure are permitted in the zone? Trash disposal? Signage? Types of trails? Campsites? Campfires?

### **Zoning Format**

After considering the various attributes the zoning scheme should have, the zones should be defined on

a map of the area and described. Normally, a zoning scheme includes zones with a range of visitor-use levels. The following format has proven to be a useful one.

**Name of the zone:** The name should appropriately describe the type of activity that is permitted in the zone, e.g., intensive use, extensive use, primitive use, wilderness, moderate use, etc.

**General objective:** What are you trying to accomplish with this zone? With regard to ecotourism, what general sort of visitor experience are you trying to provide? How does the zone reflect the site's general management objectives?

**Zone description:** The description should include a synopsis of the various attributes that will characterize the zone: biophysical, social and administrative.

**Zone boundaries:** This section should describe the location(s) of the particular zone, if possible giving precise boundaries.

### Management rules, regulations and policies:

Indicate what specific rules, regulations and policies are needed to govern visitor use of the zone, e.g., use of guides, skill levels, permits, camping, use of soap, campfires, group size, etc.

All of the above must be communicated effectively to visitors so that they understand the “ground rules.”

A proposal for the Galapagos National Park in Box 1.3, represents two basic concepts for ecotourism zoning:

- ❖ Zoning location should be such that zones of intense human use should be buffered by other zones of gradually decreasing use, i.e., primitive or wilderness areas should normally not be adjacent to zones of intensive public use.
- ❖ Zoning for ecotourism should, when advisable, provide for a wide spectrum of visitor activities, from intensive use where visitor encounters will be high, to low use where visitor encounters will be very infrequent. This allows visitors with differing expectations and needs to find satisfactory experiences in the ecotourism site.

### Conclusion

A carefully planned zoning system for tourism in a protected area is a powerful tool for ensuring that visitation occurs in places and in ways that are within the capacity of an area's management. Through the zoning system, an area's management authority, whether a community or a national park director, can ensure that tourism activities take place at a sustainable level that maximizes benefits and limits negative impacts.

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## Chapter 2

# Visitor Site Planning and Design

### Introduction

“Site design is a process of intervention involving the sensitive integration of circulation, structures and utilities within natural and cultural landscapes. The process encompasses many steps, from planning to construction.” (U.S. National Park Service, 1992)

Most ecotourism sites and protected areas are fairly large covering thousands or tens of thousands of hectares. When planning for ecotourism on a large tract of land or water, visitor use is generally concentrated in a few small sites where most infrastructure is located. Generally referred to as visitor sites, where most visitor use occurs, they are also where some very serious impacts may occur, which is why they must be planned in.

Usually visitor site planning takes place within the context of the preparation of an Ecotourism Management Plan (EMP) and after a zoning scheme for an area has been established. Site plans are prepared as part of the EMP or as a subsequent step when more time and funding are available. Visitor site designation is the result of the EMP process, which analyzes natural and cultural resources and attractions of the protected area, makes a determination about the area’s ecotourism potential and then selects certain strategic sites for ecotourism concentration based on their:

- ❖ inclusion of current and potential ecotourism attractions;
- ❖ accessibility;
- ❖ potential to concentrate visitor use with a minimum of impact; and/or
- ❖ history of previous use. In most cases, it is advisable to use sites that have already received some human intervention in order to avoid impacting intact sites.

The EMP should also make recommendations about the type(s) of infrastructure (e.g., trails, campgrounds, ecolodge, etc.) for the site without being specific about exact locations. The site planning process determines

exact locations of infrastructure, taking into account the site’s ecological sensitivity and positioning the infrastructure from a visitor management perspective (e.g., location of trails in relation to a campground or attraction). A financial feasibility study (see Part II, Chapter 4) will determine whether there is or will be sufficient demand for a business-focused infrastructure (e.g., an ecolodge) and an environmental feasibility study will assess its environmental viability.

The visitor site planning process is best carried out by a team made up of a landscape architect, a biologist or ecologist, and an environmental engineer, who should all have some training in environmental impact evaluation and tourism infrastructure. It is advisable to include a local resident on the team who is familiar with the site and/or environmental conditions in the area.

Funding for this process may be provided by the area’s administration or by a potential ecolodge entrepreneur as a part of the cost of developing the business.

### Initial Site Planning Considerations

The first step in preparing a visitor site plan is to survey and analyze the proposed location for the recommended infrastructure. It may be necessary to look at a fairly large area and then reduce the effective site’s area depending upon results of the analysis.

The actions listed in Box 2.1 are required when analyzing the visitor site.

At this point, the following questions should be asked and answered in at least a provisional manner:

1. Is the site appropriate for developing tourism activities according to the General Management Plan (GMP)?
2. Can development impacts on the site be minimized?
3. What inputs (energy, materials, labor, products) are necessary to support a development option and are required inputs available?

4. Can waste outputs (solid waste, sewage effluent, exhaust emissions) be dealt with at acceptable environmental costs?
5. What are the potential indicators that should be considered in a future impact monitoring plan for this site?

The next step involves the actual siting of the proposed buildings and infrastructure.

### Infrastructure Siting Considerations

When determining exactly where buildings and infrastructure should be located, planners should take into consideration the following (adapted from Anderson, 1993; U.S. National Park Service, 1993):

#### General Considerations:

- ❖ Ecosystem maintenance should take precedence over development considerations.
- ❖ Plan landscape development according to the surrounding context rather than by overlaying familiar, traditional patterns and solutions.
- ❖ Maintain both ecological integrity and economic viability, as both are important factors for a sustainable development process.
- ❖ Allow simplicity of functions to prevail while respecting basic human needs of comfort and safety.

- ❖ Maximize/minimize exposure to wind through plan orientation and configuration, number and position of wall and roof openings, and relationship to grade and vegetation.
- ❖ Recognize that there is no such thing as waste, only resources out of place.
- ❖ Assess feasibility of development in long-term social and environmental costs, not just short-term construction costs.
- ❖ Plan to implement development in phases to allow for the monitoring of cumulative environmental impacts and the consequent adjustments for the next phase.

#### Specific Considerations:

**Capacity.** As difficult as it may be to determine, every site has a limit for development and human activity. A detailed site analysis should determine this limit based on the sensitivity of the site's resources, the ability of the land to regenerate and the mitigating factors incorporated into the site's design. The determined limits of acceptable change (see Chapter 5) also depend upon the sensitivity that planners have for the site's environment, and the adaptations that are made to mitigate construction and operational impacts.

**Density.** Siting of facilities should carefully weigh the relative merits of concentration versus dispersal of visi-

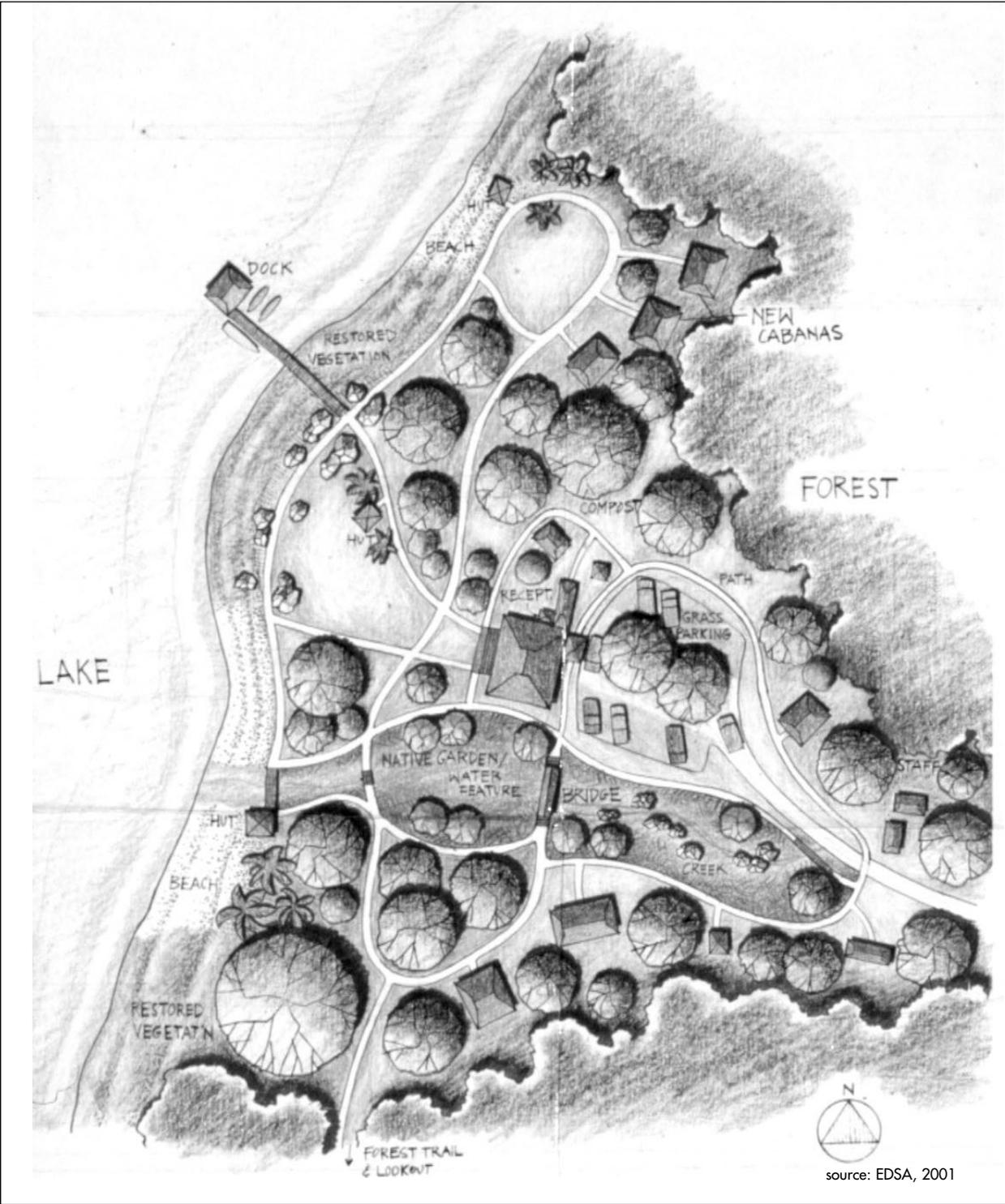
### Box 2.1 Site Development Process

Locate the following information on a Site Analysis Plan such as the one in Figure 2.1

- ❖ Review the General Management Plan (GMP).
- ❖ Establish boundaries of the site.
- ❖ Make a topographic survey with appropriate contour levels identified for detailed study (usually a minimum of 2 or 3-meter intervals).
- ❖ Locate significant site features: trees, marshes, streams, lakes, ponds, hills, existing structures, archaeological sites.
- ❖ Obtain aerial photographs to confirm survey information.
- ❖ Identify seasonal high water marks.
- ❖ Investigate approval requirements by local & national agencies.
- ❖ Identify potential sustainable power sources on or near the site.
- ❖ Identify potential water supplies on or near the site. What will be the impact of withdrawing that water from its normal flow/location?
- ❖ Investigate soil conditions and bearing capacities for building.
- ❖ Observe prevailing winds and weather patterns as they affect the site in all seasons.
- ❖ Investigate current and planned uses of adjacent properties.
- ❖ Investigate site history if it has been previously used/occupied by humans.
- ❖ Study local building techniques.
- ❖ Identify sources of building materials and methods of transport to the site.
- ❖ Evaluate the relationship of the site to local communities, their use of it in the past and their interest in participating in its future operation.

adapted from Anderson, 1993

Figure 2.1 Site Plan - Building and Infrastructure Location at El Sombrero Ecologie, Guatemala





View from the sea of the Maho Bay Eco Tent Camp, St. John, USVI, where existing vegetation was left in place to provide shade and natural habitat for local species and to minimize the visual impact of tourism infrastructure.

tor use. Natural landscape values may be easier to maintain if facilities are carefully dispersed. Conversely, concentration of structures leaves more undisturbed natural areas.

**Slopes.** Steep slopes predominate in many park and recreational environments. Siting infrastructure on slopes can cause erosion problems and should be avoided.

**Vegetation.** It is important to retain as much existing native vegetation as possible to secure the integrity of the site. Natural vegetation is an essential aspect of the visitor experience and should be preserved. Use native species for land generation (not “landscaping”), and avoid the use of exotic plant species. Minimize, or even eliminate, the use of lawns. In areas such as the tropics, most nutrients are held in the forest canopy, not in the soil; loss of trees can therefore causes nutrient loss. Shorelines and beachfronts should not be intensively developed or cleared of vegetation. Vegetation areas should be maintained adjacent to lakes, ponds and streams as filter strips to minimize runoff of sediment and debris.

Buildings and other structures should be sited so as to avoid cutting significant vegetation and to minimize disruption of other natural functions and the natural viewscape. Natural vegetation should be used to diminish the visual impact of facilities and to minimize imposition on the environmental context. In warmer climates, it may be possible to integrate facilities with their environment through minimizing solid walls, creating outdoor activity spaces, etc.

**Wildlife.** Avoid the disruption of movement, nesting patterns, feeding and roosting sites of threatened, endangered or focal wildlife species by sensitive siting of development and by limits set on construction activity and facility operation. Allow opportunities for visitors to be aware of indigenous wildlife (observe but not disturb). Also, be aware that in some ecosystems, particularly on islands, tourism activities can lead to the introduction of invasive species.

**Views.** Views are critical and reinforce a visitor’s experience. Site design should maximize views of natural features and minimize views of visitor and support facilities.

To do so, avoid high structures. Buildings should remain below tree/horizon line and be invisible from the air and on ground arrival as much as possible. Colors used on exteriors should blend, not contrast, with the natural environment.

**Natural Hazards.** Development should be located with consideration of natural hazards such as precipitous slopes, dangerous animals and plants, and hazardous water areas.

**Energy and Utilities.** Conventional energy and utility systems are often minimal or nonexistent in potential ecotourism sites. Siting should consider possible connections to off-site utilities or, more likely, spatial needs for on-site utilities.

- ❖ Infrastructure should be placed to take advantage of natural ventilation possibilities when consistent with esthetic and other considerations.
- ❖ Environmentally appropriate technologies and facilities for the treatment of organic wastes should be considered, such as composting, septic tanks and biogas tanks.
- ❖ Provision should be made for ecotourism appropriate facilities that may not have been considered in the original site planning recommendations: facilities for trash storage until removal from the site, solar panels or other appropriate energy source, maintenance buildings and sites for treatment of gray water.
- ❖ Water sources should be located where other activities will not impact them and in such a manner that water use will not significantly alter existing watercourses. Waterlines should be located to minimize disruption of earth and adjacent to trails wherever possible.

**Visitor Circulation Systems.** Infrastructure elements such as lodging and trails should be located to optimize visitor circulation: minimum distances, minimum disturbance to natural features, easily located by visitors, etc. Trails should be designed with environmental and cultural interpretation in mind and with attractions and sensitivity the primary determining factors in placement. Wherever possible, trails should be offered for differing levels of physical ability and should form a closed loop to avoid visitors retracing their steps, thus improving their experience. Trails should be clearly delimited to discourage visitors from leaving them.

Trails and roads should respect travel patterns and habitats of wildlife, including maintaining canopy cover unbroken. They should also conform to existing land-

forms. Low impact site development techniques such as boardwalks should be used whenever possible instead of paved or unpaved trails; where necessary, they should incorporate erosion controls.

If vehicular access is possible, the extent of roads and other vehicular access routes should be minimized. If a road is needed for supplying the lodge, consider using electric or hybrid vehicles to transport supplies from the main road in order to reduce noise, water and air pollution.

**Conflicting Uses.** If the site provides for different types of visitor use, for example ecolodge and campground, make sure these uses are sufficiently separated geographically so that they do not conflict.

Safety, visual quality, noise and odor are all factors that need to be considered when siting support services and facilities. These areas need to be separated from public use and circulation areas. Under some circumstances, utilities, energy systems and waste recycling areas can be a positive, educational part of the ecotourism experience.

Siting should be compatible with traditional agricultural, fishing and hunting activities. Some forms of development that supplant traditional land uses may not be responsive to the local economy.

**Impact Monitoring.** Specific indicators and standards should be established to monitor the impact of the site's use as an ecotourism location. Refer to Chapter 5 for more information.

## Conclusion

The expectations of ecotourists cannot be easily identified or quantified. It is a diverse market and ecotourists have a variety of needs and motivations. Though some ecotourists may be quite happy with tent structures, others would prefer and pay for enclosed rooms with private baths and other amenities. Facilities and infrastructure need to respond to actual and expected needs. Nature is the obvious source of inspiration for, and limitations on, the location and architectural design of ecotourism infrastructure.

After reviewing the various siting considerations and the detailed site survey, planners may decide to revise the types of infrastructure that have been proposed, eliminating some because of site sensitivity or other limitations, or changing the focus or level of development.

Information from the site planning process should be incorporated into a report that includes a site plan and accompanying text that detail all the environmental and infrastructure location criteria that need to be incorporated into the final infrastructure design.

For more information on infrastructure development and design, refer to the next chapter, “Sustainable Infrastructure Design.”

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## Chapter 3

# Sustainable Infrastructure Design

### Introduction

Once a detailed site plan is complete, the task of designing the actual structures and other infrastructure comes next. For most of this infrastructure, e.g., interpretive trails, campgrounds, ecolodges and associated support systems, an architect who is experienced in design of ecotourism projects is needed. This is an extremely important job that should be entrusted only to individuals who truly understand the importance of designing in harmony with natural forces and ecological processes.

Unless otherwise indicated, the rest of this chapter is derived primarily from the U.S. National Park Service publication “Guiding Principles of Sustainable Design” (1993). Much of it is also repeated in Spanish in Baez and Acuña (1998).

### Principles of Sustainability

Sustainability does not require a diminished quality of life, but it does require a change in mindset and values toward a less consumptive lifestyle. These changes must embrace global interdependence, environmental stewardship, social responsibility and economic viability.

Sustainable design must use an approach to traditional design that incorporates these changes in mindset. This alternative design approach recognizes the impacts of every design choice on the natural and cultural resources of the local, regional and global environments.

Some guiding principles of sustainability include:

**1. Recognize interdependence.** The elements of human design interact with and depend on the natural world, with broad and diverse implications at every scale. Expand design considerations to recognize even possible distant effects.

**2. Accept responsibility for the consequences of design decisions** — upon the well-being of humans, the viability of natural systems, and their right to co-exist.

**3. Eliminate the concept of waste.** Evaluate and optimize the full life cycle of products and processes to approach the state of natural systems in which there is no waste.

**4. Rely on natural energy flows.** Human designs should, like the living world, derive their creative forces from perpetual solar income. Incorporate this energy efficiently and safely for responsible use.

**5. Understand the limitations of design.** No human creation lasts forever and design does not solve all problems. Treat nature as a model and mentor, not an inconvenience to be evaded or controlled.

### Sustainable Building Design Philosophy

Sustainable design balances human needs (rather than human wants) with the capacity of the natural and cultural environments. It minimizes environmental impacts and the importation of goods and energy, as well as the generation of waste. Any development would ideally be constructed from natural sustainable materials collected on site, generate its own energy from renewable sources such as solar or wind, and manage its own waste.

### Sustainable Building Design Objectives

Sustainable building design must seek to:

- ❖ Use the building (or non-building) as an educational tool to demonstrate the importance of the environment in sustaining human life.
- ❖ Reconnect humans with their environment for the spiritual, emotional and therapeutic benefits that nature provides.

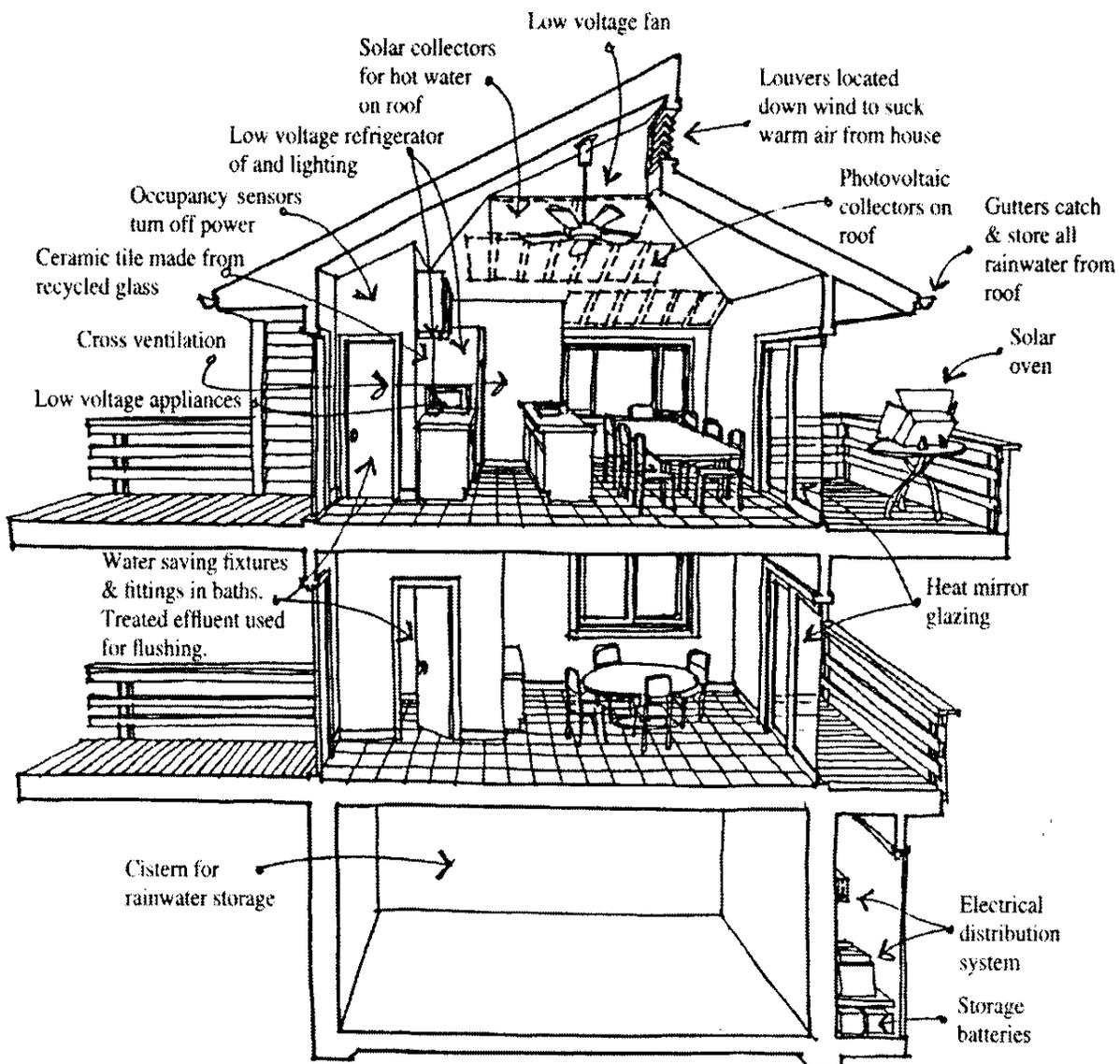
- ❖ Promote new human values and lifestyles to achieve a more harmonious relationship with local, regional and global resources and environments.
- ❖ Increase public awareness about appropriate technologies and the cradle-to-grave energy and waste implications of various building and consumer materials.
- ❖ Nurture living cultures to perpetuate indigenous responsiveness to, and harmony with, local environmental factors.
- ❖ Relay cultural and historical understanding of the site with local, regional and global relationships.

## Checklist for Sustainable Building Design

### Natural Factors

By definition, sustainable design seeks harmony with its environment. To properly balance human needs with environmental opportunities and liabilities requires detailed analysis of the specific site. How facilities relate to their context should be obvious so as to provide environmental education for its users. Although the following information is fairly general, it serves as a checklist of basic considerations to address once specific site data are obtained.

Figure 3.2 Example of a Sustainably-Designed Accommodation (1)



source: Ceballos-Lascuráin, 1996

## Climate

- ❖ apply natural conditioning techniques to effect appropriate comfort levels for human activities; do not isolate human needs from the environment
- ❖ avoid overdependence on mechanical systems to alter the climate
- ❖ analyze whether the climate is comfortable, too cold or too hot for the anticipated activities, and then decide on mitigation of the primary climatic components of temperature, sun, wind and moisture that can make the comfort level better.

## Temperature

- ❖ temperature is a liability in climates where it is consistently too hot or too cold
- ❖ areas that are very dry or at high elevation typically have the characteristic of large temperature swings from daytime heating to nighttime cooling, which can be flattened through heavy/massive construction to yield relatively constant indoor temperatures
- ❖ when temperature is predominantly too hot for comfort:
  - minimize solid enclosure and thermal mass
  - maximize roof ventilation
  - use elongated or segmented floor plans to minimize internal heat gain and maximize exposure for ventilation
  - separate rooms and functions with covered breezeways to maximize wall shading and induce ventilation
  - isolate heat generating functions such as laundry and kitchens from living areas
  - provide shaded, outdoor living areas such as porches and decks
  - capitalize on nighttime temperatures, breezes or ground temperatures
- ❖ when climate is predominantly too cold for comfort:
  - consolidate functions into the most compact configuration
  - insulate thoroughly to minimize heat loss
  - minimize air infiltration with barrier sheeting, weather-stripping, sealants and airlock entries
  - minimize entries not oriented towards sun exposure.

## Sun

- ❖ sun can be a significant liability in hot climates but is rarely a liability in cold climates
- ❖ sun can be an asset in cool and cold climates to provide passive heating
- ❖ design must reflect seasonal variations in solar intensity, incidence angle, cloud cover and storm influences

- ❖ when solar gain causes conditions too hot for comfort:
  - use overhangs to shade walls and openings
  - use site features and vegetation to provide shading to walls with eastern and western exposure
  - use shading devices such as louvers, covered porches and trellises with natural vines to block sun without blocking out breezes and natural light
  - orient broad building surfaces away from the hot late-day western sun (only northern and southern exposures are easily shaded)
  - use light-colored wall and roofing materials to reflect solar radiation
  - in tropical climates use shutters and screens, avoiding glass and exposures to direct sunlight
- ❖ when solar gain is to be used to offset conditions that are too cold for comfort
  - maximize building exposure and openings facing south (facing north in the southern hemisphere)
  - increase thermal mass and envelope insulation
  - use dark-colored building exteriors to absorb solar radiation and promote heat gain.

## Wind

- ❖ wind is a liability in cold climates because it strips heat away quicker than normal; wind can also be a liability to comfort in hot dry climates when it causes the human body to dehydrate and then overheat
- ❖ wind can be an asset in hot, humid climates to provide natural ventilation
  - use natural ventilation wherever feasible; limit air conditioning to areas requiring special humidity or temperature control such as artifact storage and computer rooms;
  - use wind scoops, thermal chimneys or wind turbines to induce ventilation on sites with limited wind.

## Moisture

- ❖ moisture can be a liability if it is in the form of humidity, causing such stickiness that one cannot cool evaporatively (cool by perspiring)
  - strategies to reduce the discomfort of high humidity include maximizing ventilation, inducing air flow around facilities and venting or moving moisture-producing functions such as kitchens and shower rooms to outside areas
- ❖ moisture can be an asset by evaporating in hot, dry climates to cool and humidify the air (a natural air conditioning)
  - techniques for evaporative cooling include placing facilities where breezes will pass over water features before reaching the facility and providing fountains, pools and plants.

### ***Other Climatic Considerations***

- ❖ rainfall can be a liability if any concentrated runoff from developed surfaces is not managed to avoid erosion
- ❖ rainfall can be an asset if it is collected off roofs for use as drinking water
- ❖ storms/hurricanes/monsoons/typhoons
  - provide or make arrangements for emergency storm shelters
  - avoid development in flood plain or storm surge areas
  - consider wind effects on walls and roofs when designing structures
  - provide storm shutters for openings
  - design facilities to be light enough and of readily available and renewable materials to be safely and economically sacrificed to large storms, or of sufficient mass and detail to prevent loss of life and material.

### ***Topography***

- ❖ consider building/land interfaces to minimize disturbance to site character, skyline, vegetation, hydrology and soils
- ❖ consolidate functions or segment facilities to reduce footprint of individual structures to allow sensitive placement within existing landforms
- ❖ use landforms and the sensitive arrangement of buildings to:
  - help diminish the visual impact of facilities
  - enhance visual quality by creating a rhythm of open spaces and framed views
  - orient visitors to building entrances
  - accentuate key landmarks, vistas and facilities.

### ***Water Bodies***

- ❖ capture views and consider advantages/disadvantages of offshore breezes
- ❖ safeguard water from pollutants from the development itself and from the users
- ❖ minimize visual impact of development on waterfront zones
  - use building setbacks
  - consider building orientation and materials
  - avoid light pollution
- ❖ allow precipitation to naturally recharge groundwater wherever possible.

### ***Pests***

- ❖ design facilities to minimize intrusion by noxious insects, reptiles and rodents
- ❖ ensure that facility operators use natural means for pest control.

### ***Cultural Resources***

- ❖ archeological and other sites of cultural importance should be respected and not negatively impacted
- ❖ understand the local culture and the need to avoid the introduction of socially unacceptable or morally offensive practices
- ❖ consult with local indigenous population for design input as well as to foster a sense of ownership and acceptance
- ❖ include local construction techniques, materials and cultural considerations in the development of new facilities
- ❖ incorporate local expressions of art, handiwork, detailing and, when appropriate, technology into new facility design and interior design.

### ***Sensory Experience***

#### ***Visual***

- ❖ provide visitors with ready access to educational materials and experiences to enhance their understanding and appreciation of the local environment and the threats to it
- ❖ incorporate views of natural and cultural resources into routine activities to provide opportunities for contemplation, relaxation and appreciation
- ❖ provide visual surprises within the design of facilities to stimulate the educational experience.

#### ***Sound***

- ❖ locate service and maintenance functions away from public areas
- ❖ space lodging units and interpretive stops so that natural and not human sounds dominate
- ❖ restrict the use or audio level of unnatural sounds such as radios and televisions.

#### ***Smell***

- ❖ allow natural fragrances of vegetation to be enjoyed
- ❖ direct air exhausted from utility areas away from public areas.

## Selection of Building Materials

### Selection Priorities

When the source is sustainable:

- ❖ natural materials are less energy-intensive and polluting to produce and contribute less to indoor air pollution
- ❖ local materials have a reduced level of energy cost and air pollution associated with their transportation and can help sustain the local economy
- ❖ durable materials can save on energy costs for maintenance as well as for the production and installation of replacement products.

In selecting building products, it is helpful to prioritize them by origin, avoiding materials from non-renewable sources. Be careful not to contribute to the local

extinction of a particular useful, much-used tree or other building material.

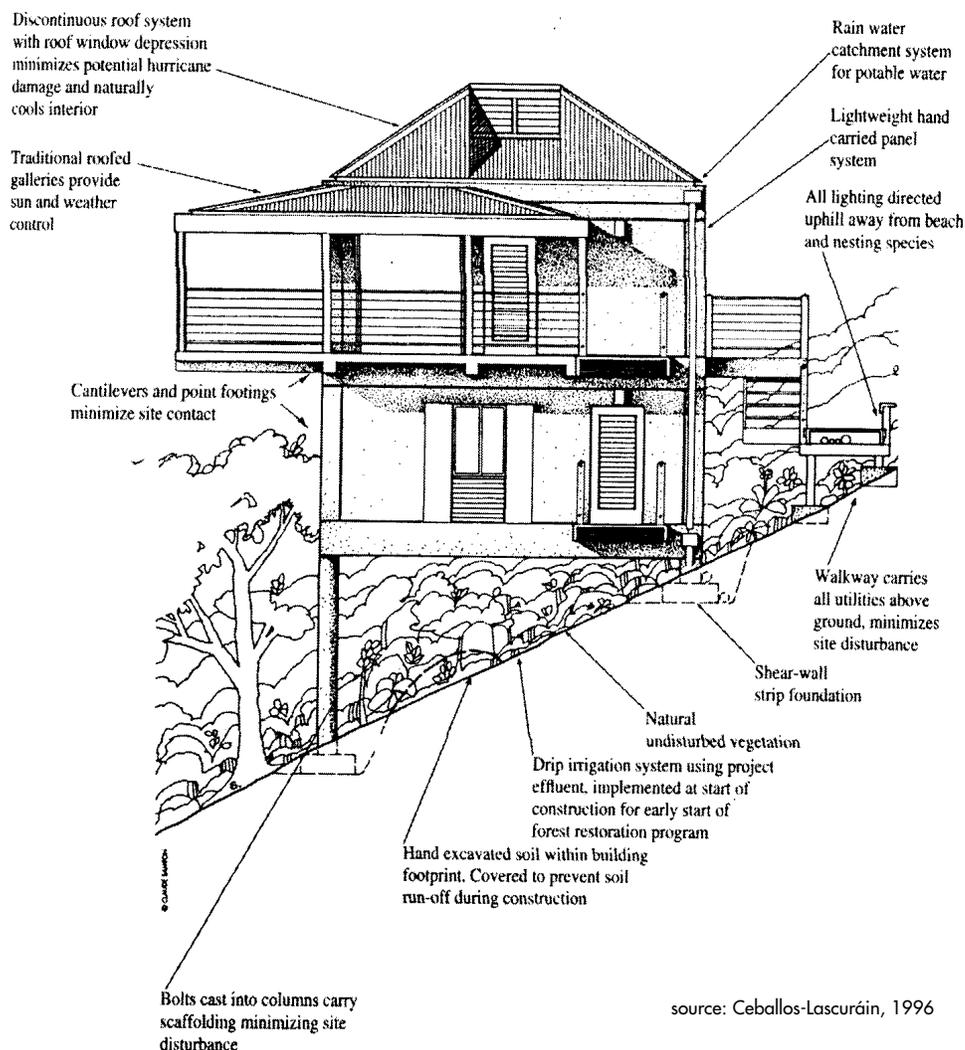
**Primary:** Materials found in nature such as stone, earth, flora (hemp, jute, reed, cotton), wool and wood.

- ❖ ensure that new lumber is from certified or sustainably-managed forests
- ❖ use caution that any associated treatments, additives or adhesives do not contain toxins or off-gas volatile organic compounds that contribute to indoor air/atmospheric pollution.

**Secondary:** Materials made from recycled products such as wood, aluminum, cellulose and plastics.

- ❖ verify that production of material does not involve high levels of energy, pollution or waste

**Figure 3.3 Example of a Sustainably-Designed Accommodation (2)**



source: Ceballos-Lascuráin, 1996

### Box 3.1 Environmentally-Sensitive Building Materials

The complete life-cycle energy, environmental and waste implications of each building material must be examined. This cradle-to-grave analysis is the tracing of a material or product, and its byproducts, from its initial source availability and extraction through refinement, fabrication, treatment and additives, transportation, use and eventual reuse or disposal. This tracing includes the tabulation of energy consumed and the environmental impacts of each action and material.

Source of raw ingredients (renewable? sustainable? locally available? nontoxic?)



Raw material extraction (energy input? habitat destruction? topsoil erosion? siltation/pollution from runoff?)



Transportation (most local source? fuel consumption? air pollution?)



Processing and/or manufacturing (energy input? air/water/noise pollution? waste generation and disposal?)



Treatments and additives (use of petrochemicals? exposure to and disposal of hazardous materials?)



Use and operation (energy requirements? longevity of products used? indoor air quality? waste generation?)



Resource recovery/disposal (potential for recycling/reusing materials? disposal of solid/toxic wastes?)

- ❖ verify the functional efficiency and environmental safeness of salvaged (reused) materials and products from old buildings
- ❖ consider cellulose insulation; it is fireproof and provides a greater R-value per centimeter thickness than fiberglass
- ❖ specify aluminum from recycled material; it uses less energy to produce over initial production
- ❖ keep alert for new developments; new environmentally sound materials are coming on the market all the time.

**Tertiary:** Man-made materials (artificial, synthetic, non-renewable) having varying degrees of environmental impact such as plywood, plastics and aluminum.

- ❖ avoid use of materials and products containing or produced with chlorofluorocarbons or hydrochlorofluorocarbons that deteriorate the environment

- ❖ avoid materials that off-gas volatile organic compounds, contributing to indoor air/atmospheric pollution
- ❖ minimize use of products made from new aluminum or other materials that are resource disruptive during extraction and a high energy consumer during refinement
- ❖ avoid use of concrete and steel.

### Energy Management

An ecotourism site has a responsibility to use the most advanced techniques possible to reduce energy consumption, utilize local renewable sources of energy and educate visitors about environmentally responsible energy consumption.

Just as a site has primary natural and cultural resources, it has primary renewable energy resources, such as sun, wind and biogas conversion. Solar applications range from hot water preheating to electric power production with photovoltaic cells. Wind-powered generators can provide electricity and pumping applications in some areas. The biogas conversion process reduces gas or electricity costs and eliminates the release of wastewater effluent into water resources. Biogas can be used for water heating, cooking and refrigeration.

The availability, potential and feasibility of primary renewable energy resources must be analyzed early in the planning process as part of a comprehensive energy plan. The plan must justify energy demand and supply and assess the actual costs and benefits to the local, regional and global environments. Certainly it is best to avoid adding to pressure on the natural environment by avoiding the use of polluting fossil fuels such as diesel and oil.

### Water Supply

Sustainable design should respect the water resources with diligence whatever the natural distribution. The challenge of sustainable design applies more to areas where fresh water is not limited than to dry areas where the economics of high-cost water tends to promote wise stewardship. The principles of sustainable design apply without reservation to all types of climates. In a park or ecotourism development, where health considerations are paramount, water issues center on providing safe drinking, washing, cooking and toilet-flushing water. Pay close attention to issues of water supply and sustainability, impact of use on local communities and sensible economies (e.g., baths vs. showers).

The cornerstone of any domestic water supply program is conservation. Water conservation includes using water of lower quality such as reclaimed wastewater effluent, gray water or runoff from ground surfaces for toilet flushing or irrigation of the landscape or food crops. These uses do not require the quality of water that is needed for internal consumption, bathing or washing. With the proper type of wastewater treatment and plumbing hardware, sea water can be used as a toilet-flushing medium.

User education and awareness are key to successful water conservation. Visitors should receive interpretation about the source of the water and the types of energy required to process and distribute water at the site. Positive reinforcement should be provided to visitors by informing them of their actual water savings as well as their responsibility in achieving the goal of water conservation. Appropriate signs of high quality material should be put in restrooms to indicate that management places a high priority on water conservation and to confirm goals and expected behaviors of visitors.

### **Waste Prevention and Management**

Preventing pollution in a sensitive setting means thinking through all of the activities and services

associated with the facility and planning them in a way that they generate less waste.

Waste prevention leads to thinking about materials in terms of reduce, reuse and recycle. The best way to prevent pollution is not to use materials that become waste problems. When such materials must be used, they should be reused onsite. Materials that cannot be directly reused should be recycled.

#### **i) Solid Waste**

Convert biodegradable waste to compost that can be used on site or made available to local food producers. Non-biodegradable wastes should be separated on site and transported to a properly managed site for adequate disposal. This may have the additional benefit of creating additional employment and could provide environmental education and improve local community infrastructure. Use biodegradable detergents, fats, guest soaps and shampoos, etc. Limit the use of disposable plastic containers, utensils and wrappings and advise guests in advance of ecolodge policy.

#### **ii) Sewage**

Evaluate the relative impacts and merits of dry toilets, anaerobic bioseptic treatment (and biogas production), aerobic bioseptic treatment and constructed

### **Box 3.2 The Green Report Card for Evaluating Ecotourism Facilities**

- Is the scale of the development appropriate for the local community and the capacity of the environment to support the facility?
- Were the members of the local community actively involved in the planning and construction of the facility?
- Are members of the local community involved in day-to-day operations of the facility?
- Is the facility to be a phased development, and if so, are the subsequent phases provided for in a manner that allows for minimal disruption of the environment and the existing facility?
- Are roads and trails placed to minimize intrusion on the environment?
- Does the facility design utilize traditional cultural building forms and materials found in the immediate area?
- Does the design of the facility encourage the visitor to look at the natural environment in a new way?
- Are there any contradictions to the ecotourism mission of conservation apparent in the facility?
- Are provisions such as a library, laboratory, discussions, guided walks or other experimental settings made to provide visitors with educational opportunities?
- Is the energy source(s) environmentally sound and sustainable?
- Are building materials free of toxic or non-biodegradable agents?
- Are appropriate technologies employed for the treatment of organic wastes and other wastes? Is recycling practiced?
- Are the building structures and paved areas properly sited to prevent erosion?
- Are the furnishings and other lodging accommodations consistent with the architectural theme and environmental parameters?
- Is accommodation made for older guests and physically-disabled individuals?
- Does the staff seem informed about ecotourism and the facility's design and operational features?

adapted from Anderson, 1993

wetlands. Wastewater should be treated to a level acceptable for agriculture and released into an irrigation system for a small garden behind the facility. This accomplishes three goals at once: use of wastewater instead of simply releasing it into the watershed, reduction of local food resources consumption and provision of fresh, organic produce.

### **Visible, Participatory Systems**

The “out of sight, out of mind” mentality regarding waste is perpetuated because the systems that deal with waste problems are all behind the scenes and off-limits. An environmentally-sound facility would ensure the visibility of systems to minimize the generation of waste. Such systems require conscious participation by users, visitors and operators, but should not dominate the experience of the visitor at the facility. If each person does his/her share, the facility can be operated in a more environmentally-sound manner. This can also lead to long-term changes in behavior, benefiting the participant and the Earth.

### **Training and Maintenance**

Waste prevention requires training the operators, including all users of the system, and performing diligent maintenance. Most waste problems are created by lack of attention. Because waste prevention represents a change in the way activities are carried out, it requires an extra effort to ensure that these practices are maintained until they become routine. In situations with high turnover of both employees and visitors, continuous training and education will be essential.

### **Garbage/Solid Waste Prevention Strategies**

Ideally, nothing should be brought into a resource-related development that is neither durable, biodegradable or recyclable.

### **Pollution Prevention**

All refrigeration should be c.f.c.-free. Avoid the use of aerosols (housekeeping sprays, etc.)—use more economical and eco-friendly “hand-pumped” materials, which must be biodegradable. Swimming pool back-washes should have chemical removing filters, and consider alternatives to chlorine for pool cleaning. All gasoline and oil tanks should be secured in their own reservoirs to avoid leakage into the surrounding environment, and vehicles’ used oils should be collected and shipped out. Minimize light pollution, especially artificial lighting in outdoor areas, to avoid disturbance to wildlife and to keep the stars visible from the lodge.

In planning for visitor facilities, a comprehensive design strategy is needed for preventing generation of solid waste. For more details concerning this, refer to the U.S. National Park Service document (1993).

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# Chapter 4

## Revenue-Generating Mechanisms

### Introduction

Natural resource conservation creates a multiplicity of economic benefits for society such as fresh water, clean air, genetic banks, carbon sinks, coastal protection (coral reefs and mangroves), recreation, etc. However, as these benefits have not been allocated a market value, consumers have typically enjoyed them for free. At lower levels of demand in the past, this pattern may have been sustainable. Today, however, the voracious demand for natural resources and their often unequal distribution means that they—and the ecosystem services they provide—are increasingly threatened.

Despite their obvious and growing popularity with tourists, recreational opportunities in protected areas are rarely priced adequately. Parks around the world frequently charge a low, or no, price for providing recreational opportunities to the public. Consequently, the demand for access to a protected area often exceeds an area manager's capacity to manage it. The results of over-visitation are sometimes painfully visible at some sites while at others they are more insidious as baseline data on ecosystem health are often non-existent and it

is difficult or impossible to assess how an area has been degraded over time by excessive tourist use.

In developing countries, governments pressured by structural adjustment programs and debt interest payments increasingly limit funding for protected area conservation. In this context, it is essential that protected area systems not subsidize recreation opportunities for foreign nature tourists and access for tour operators.

### Income-Generating Mechanisms

A number of relatively simple market-based mechanisms exist to generate tourism revenues for conservation (see Table 4.1).

In general, revenue produced by these activities can be described by the following income-collection categories:

#### Entrance Fees

This is a fee charged to visitors in order to enter a protected area or other ecotourism site. It can be collected at the entrance to the site or previously at another

**Table 4.1 Types of Fees and Charges in Protected Areas**

Fee type	Description
Entrance fees	Allows access to points beyond the entry gate.
Admission fees	Collected for use of a facility or special activity, e.g., museum or photography class.
User fees	Fees paid by visitors to use facilities within the protected area, e.g., parking, camping, visitor centers, boat use, shelter use, etc.
Licenses and permits	For private tourism firms to operate on protected area property, e.g., tour operators, guides, transport providers and other users.
Royalties and sales revenue	Monies from sales of souvenirs.
Concession fees	Charges or revenue shares paid by concessionaires that provide services to protected area visitors, e.g., souvenir shops.
Taxes	Such as on hotel rooms, airport use and vehicles.
Leases and rent fees	Charges for renting or leasing park property or equipment.
Voluntary donations	Includes cash, 'in-kind' gifts and labor, often received through 'friends of the park' groups.

source: Brown, 2001

**Table 4.2 Entrance Fees to Protected Areas Managed by the Belize Audubon Society**

Protected area	Hectares	Entrance fees (US\$)	
		Belizean Citizens	Foreigners
Guanacaste National Park	20	0.50	2.55
Blue Hole National Park	232	1.00	4.00
Crooked Tree Wildlife Sanctuary	6,475	1.00	4.00
Cockscomb Basin Wildlife Sanctuary	41,278	1.25	5.00
Half Moon Caye National Monument	3,925	1.25	5.00
Tapir Mountain Nature Reserve	2,728	no access	no access
Shipstern Nature Reserve	8,903	1.00	5.00

source: Brown, 2001

administrative center. It can be charged directly to the visitor or, alternatively, tour operators may purchase tickets in advance so that visitors on organized tours have the fee included in the total cost of their package. Differential fees are common. In developing countries, citizens are typically charged less than foreign visitors are. This is to be encouraged for several reasons:

- ❖ Residents of a destination country (i.e., country of site location) are already paying through taxes for protected area conservation;
- ❖ Environmental education and recreation objectives of protected areas normally seek to encourage visitation by local people; and
- ❖ Foreigners from developed countries are generally willing to pay more for access to protected areas.

A further differential may be made for students who are usually charged an even lower fee. Table 4.2

shows an example of how privately-managed protected areas in Belize differentiate between local citizens and foreigners.

Table 4.3 shows the differentiated entrance fees in effect in the Galapagos National Park in Ecuador. In this case, fees are differentiated into a greater number of categories to offer lower prices to neighboring countries.

Table 4.4 shows entrance fees charged by the Kenya Wildlife Service. These are not only differentiated by visitor type but also by levels of visitation. Categories and entrance fees in Kenya are established based on levels of visitation. Parks with similar visitation levels are grouped together, and the most heavily-visited sites charge the highest entrance fees.

Traditionally, this is the fee mechanism that most contributes to revenues generated by an ecotourism site, in part because it is the easiest to collect.

**Table 4.3 Entrance Fees for the Galapagos National Park, Ecuador**

Category	Amount in US\$
Foreign tourist (non-resident)	100
Foreign tourist under 12 years	50
Foreign tourist of a member country of the Andean Community or Mercosur	50
Foreign tourist of a member country of the Andean Community or Mercosur under 12 years	25
Citizen or resident of Ecuador	6
Citizen or resident of Ecuador under 12 years	3
Foreign tourist non-resident attending a national academic institution	25
National or foreign children under 2 years	No fee

source: Government of Ecuador, 1998

**Table 4.4 Visitor Entrance Fees for Kenya’s National Parks**

	Non Residents (US\$ per day)	Kenya Residents (Kshs per day) **	Kenya Citizens (Kshs per day)**
<b>Category A: Aberdares, Amboseli &amp; Lake Nakuru</b>			
Adults	27	500	100
Children (from 3 to 18 years)	10	50	50
Student and organized groups*	10	50	50
<b>Category B: Tsavo East &amp; Tsavo West</b>			
Adults	23	200	100
Children (from 3 to 18 years)	8	50	50
Student and organized groups*	10	50	50
<b>Category C: Nairobi, Shimba Hills &amp; Meru</b>			
Adults	20	150	100
Children (from 3 to 18 years)	5	50	50
Student and organized groups*	10	50	50
<b>Category D: All other parks</b>			
Adults	15	100	100
Children (from 3 to 18 years)	5	50	50
Student and organized groups*	5	50	50

\* Includes students over 18 years and adults from educational, conservation and civic institutions.

\*\*70 Ksh = US\$1

source: Kenya Wildlife Service, 2001

Normally, the objective of charging an entrance fee is to increase the funding available for the area’s maintenance and development activities. However, the amount of the entrance fee can also be a mechanism for facilitating or limiting visitor access, depending upon the site’s particular situation. If a site’s administration wishes to limit visitation because of adverse visitor impacts, raising the entrance fee is one way to attempt this objective. However, raising and lowering entrance fees alone does not always have a direct impact on visitor numbers. It may also have unintended consequences, especially if the fee level has not been defined based upon demand. Additionally, there is a need to communicate significant changes in fees to operators, guide book authors, etc. to avoid surprising foreign visitors at the gate. It requires a thorough knowledge of the demand for a site’s attractions before the effect of changing the amount of an entrance fee can be reasonably predicted.

### **Determining Entrance Fee Levels**

Ideally, an ecotourism site should have as its objective the generation of enough income to cover its operating expenses plus a surplus to invest in conservation and community development priorities. Achieving this will depend upon a site’s importance as a tourism destina-

tion and the management and marketing capabilities of the administration and tourism managers.

There are three principal considerations in determining entrance fee levels:

- ❖ Willingness to pay for access to a managed area by the visitor. This is determined by surveying visitors to the site. If the entrance fee being charged is not based on willingness to pay, visitors can be asked if it is the right amount and what the maximum is that they would pay. The survey format might provide a range of entrance fee options to choose from.
- ❖ Comparison of fees charged at other similar sites in similar circumstances. Remember to allow for differences in natural/cultural attractions, infrastructure development, etc.
- ❖ Cover costs associated with provision and maintenance of recreational opportunities. A minimum level of revenue to be generated from entrance fees and other use fees should be enough to properly finance the costs incurred by area management in providing ecotourism opportunities. Very often protected areas contribute to their own problems by undercharging use fees.

### **Admission Fees**

This is a fee collected for the use of a facility or special activity such as a museum or a photography class.

### **User Fees**

This is a fee charged to visitors for the use of a service or a particular opportunity offered by the site that incurs a cost higher than that covered by the entrance fee. (Some sites opt not to charge an entrance fee but instead charge for whatever activities a visitor wishes to participate in.) Examples of this would be charging a fee for parking, visitor center use or for camping in organized camping or primitive areas.

### **Licenses or Permits**

These are fees charged to tour operators to allow them to manage visitors in protected areas, e.g., charter boat owners in the Galapagos Islands. Typically, they need to be renewed annually and can be used by protected area managers as a means for controlling and limiting access to an area. Additionally, they can be issued to allow the visitor to carry out a specific activity that requires special supervision/management because it is infrequently participated in or because demand for this activity must be rationed, such as backcountry camping or rock climbing. It is common for some activities to be rationed in order to reduce human impact and/or provide for a particular visitor experience such as a high

level of solitude. It is a good mechanism for monitoring how many visitors actually carry out certain activities. Fishing is another activity for which a license is frequently required. Guides and tour operators may also need special permission to work within the site, for which a fee is usually charged.

### **Sales**

In many cases, the site's administration or third parties may sell souvenirs, food and other products to visitors within the site. Profit from these sales is another source of income. Especially where sales are concerned, profit must be calculated carefully after deducting all costs, such as of purchasing or manufacturing the product, labor costs, etc. Third parties must also make a profit before the site's administration receives a percentage.

### **Concessions**

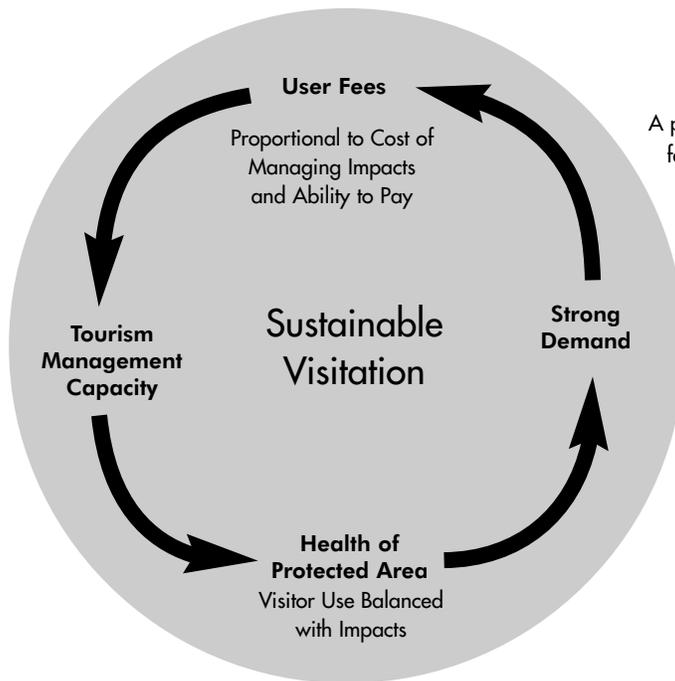
This is a mechanism by which third persons provide a service to visitors within an ecotourism site. The most common examples of this are providing lodging and food services to visitors within the site; offering the use of horses, guided tours and boat transportation can also be done via the concession mechanism.

In some ecotourism sites, the administration may choose to carry out all of these services in-house without involving concessions. On the other hand, most ecotourism site managers find that they either do not have



Revenue is generated by entrance fees and activity fees for fishing, camping and hiking in Ecuador's Condor Bioreserve.

**Figure 4.1 Virtuous Cycle of Tourism User Fees: Positive feedback loop between tourism impacts and conservation finance**



A positive feedback loop should exist between user fee levels, demand and the health of the protected area ecosystem. Tourism revenues should respond to demand and should possibly be used to limit demand in situations where over-visitation is a threat to biodiversity. Income generated from fees should be invested primarily in ensuring tourism's sustainability at the site visited.

the expertise or the investment capital needed to provide these services in a professional manner. This is a decision that each site management will need to make. In any case, a strong and regularly-audited accounting would be necessary to use this option successfully.

Selection of the concessionaires is usually carried out via a bidding process in which the ecotourism site's administration develops the terms of reference and interested parties offer their services, including the amount they are willing to pay for the opportunity to provide the services. In the case of government-managed protected areas, this process can be long and involved. This is an excellent way to involve local people as either owners of the concession, co-concessionaires with a more experienced tour operator or employees of the concessionaire.

A concession may not be a viable alternative for some sites, particularly if there is not much demand for the service. On the other hand, there may be demand but not the entrepreneurs with sufficient capital or interest in taking on the risk of a situation with uncertain results. In any case, a concession should not be undertaken unless a marketing study, business plan and full-scale site plan are prepared (see Part II of this volume).

Concession income can be charged in different ways:

- 1) according to the number of people a concession serves during a given year;
- 2) as a percentage of the gross or net income of the concessionaire;
- 3) as an annual fixed fee; or
- 4) a combination of the above.

In many situations, it is very difficult to calculate profits, income and number of people served by a concession. An annual fee is of course one simple way to charge a concessionaire, but it does not have much flexibility. Remember that a site is supposed to be making money. The concession may annually increase its business while the annual fee stays the same. It is not unusual for concessionaires to make huge profits while site administrations receive very little. It is important to be creative at keeping concession fees appropriate for all but easily calculated. In Costa Rica, the administration of Poas Volcano National Park charges the operators of a coffee shop according to the number of visitors who pay entrance fees. The local Red Cross charges a fee for parking and in turn its members are in charge of keeping the public restrooms clean and stocked with toilet paper.

It should be made clear in the terms of reference that the concessionaire will need to adhere to best practices pertaining to ecotourism infrastructure development and management. For example, standards of cleanliness, maximum numbers of visitors (for lodging and food services), maximum prices, garbage/trash/human waste disposal should be specified in the concession contract. The ecotourism site's manager, however, is ultimately responsible for ensuring that all standards and contract conditions are monitored periodically and complied with.

### Conditions for Collecting Revenues

While there may be many opportunities for generating income in the ecotourism site, producing money requires that you provide the conditions necessary to do so in a safe and professional manner.

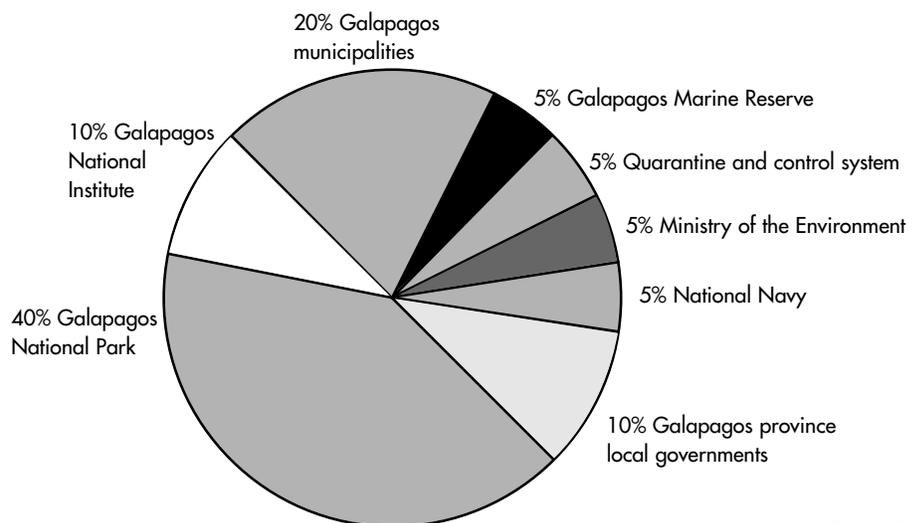
**Cost/benefit.** Just because there is an opportunity to charge visitors for something does not mean that it would be economically justifiable. How much will it cost in order to charge a particular fee? Do you have the personnel available to do this? Will personnel need to place routine but important tasks such as patrolling on the back burner in order to charge an entrance fee? Do you have the infrastructure (e.g., entrance stations) needed to charge the fee? Are there enough visitors to make it worthwhile?

**Quality.** Visitors will be quick to notice if they are being charged for an inferior product. Before establishing an entrance fee or other fee, be sure that you are offering a product commensurate with the amount of the fee. For example, a high entrance fee should mean that the site offers high value attractions and well-developed and maintained infrastructure as well as sufficient and well-trained personnel. This also applies to concessionaires. Most visitors to the Galapagos National Park in Ecuador are happy to pay the US\$100 entrance fee because of the exceptional value of the natural resource and the generally good quality of service they receive.

It is important to recognize that income generation should never become an end in itself. You should always keep in mind that your ultimate goal is site conservation. If adding another activity to increase funding for your site is going to interfere with effective long-term site conservation, then you should probably not carry out that activity.

**Safety.** Because of the location of many ecotourism sites in isolated situations, the safety of the personnel in charge of collecting revenue could be an issue. The safety of the money after being collected could also be a consideration of there is no bank or other secure location for it to be placed until it can be safely deposited in a bank account.

**Figure 4.2 Distribution of Entrance Fees in Galapagos National Park**



source: Benitez, 2001

**Accounting.** The more complex a fee system is, the more important it is to have an appropriate accounting system (and a trained accountant) to adequately administer all of its financial complexities. There are two important reasons for this:

- ❖ You need to know exactly how much you are producing from each activity so that you know if it is cost effective. You also need to know how much you are producing in order to develop your next budget (assuming that what you produce can be spent at your site).
- ❖ There is a need for transparency and clarity in revenue management. Mismanagement of funds is altogether too common and can be the downfall of a good ecotourism program.

### Revenue Distribution

As a general rule, an ecotourism site generates income with a lot more enthusiasm if its personnel know that the income will be spent in large part on the site's management needs. Unfortunately, this is frequently not the case, especially with government-owned protected areas. The majority of income often returns to a general fund where it is used for a wide variety of situations, with very little returning to the site that produced it.

In the United States, both the National Park Service and the National Forest Service have recently begun to allow parks and national forest administrations to retain most of the user and entrance fees that they produce (Brown, 2001). The Galapagos National Park and Marine Reserve in Ecuador, which produced around US\$5 million in 1999, keeps 50% of the fees it generates, while other Galapagos entities, including municipalities, also receive a defined percentage (Benitez, 2001). See Figure 4.1 for more on fee distribution.

It may be necessary to lobby the people in charge of financial and budgetary affairs to allow sites to retain a good part of the revenue they produce. In the meantime, being effective, efficient and professional with what you are permitted to do is an important step towards demonstrating that the site's administration should be allowed more freedom to manage its money.

### Managing Revenues

If the ecotourism site is allowed to keep all or some of the income that it generates, what should happen to the money once it is collected? An important first step is that it be thoroughly accounted for and deposited in a bank account. If possible, the money should be transferred to a site-focussed trust fund. Advantages of using a trust fund include:

- ❖ The money will earn interest while it is in the trust fund.
- ❖ There is more flexibility to use it than there would be if it were part of a larger institution's administrative structure.
- ❖ A select group of individuals may act to oversee the trust fund account and must authorize both investment strategies as well as withdrawals by the site's administration. Frequently, withdrawals must be justified by a work plan presented by the site's administration.

### Funding Priorities

In general, income should be spent to ensure that the site meets its conservation objectives. This is a fundamental concept but one that may get lost in the urgency to create a successful ecotourism program. If this cannot be *or* is not done, then the ecotourism program cannot have long term success. There are, however, multiple ways to spend money to meet conservation objectives, and each site must develop its own priorities.

In general, there are three different stakeholder groups that can benefit from the income generated by an ecotourism site: ecosystems, visitors and local people. No matter how the money is spent, or on which group or combination of groups, the bottom line should be conservation. The key conservation benefits of ecotourism can be clustered into five areas (Brandon and Margoluis, 1996):

1. A source of financing for biodiversity conservation, especially in legally-protected areas.
2. Economic justification for protected areas.
3. Economic alternatives for local people to reduce overexploitation on or adjacent to protected areas and other natural areas.
4. Constituency building that promotes biodiversity conservation.
5. An impetus for private biodiversity conservation efforts.

More specifically, one priority could be ensuring a sufficient flow of funding, i.e., spending money in order to make more money. This could entail building trails, signs, scenic overlooks, etc., to make a site more attractive to visitors. Staff training might also be important. It could also involve doing more to market your site by preparing pamphlets, creating a web site or participating in events where you can publicize a site's attractions.

Perhaps protection of a site's natural resources is a high priority, in which case you might want to hire more personnel, buy more equipment or establish well-defined site boundaries. Another priority is ensuring that visitor impacts are kept to a minimum. Establishing a permanent monitoring program with established procedures and trained personnel is something that all ecotourism sites should have.

If there is an established Ecotourism Program, perhaps the income that is generated should go towards making that program self-sufficient or at least covering its operational budget. Providing local communities with start-up funding to begin an ecotourism enterprise may also be a priority for your site.

However a site's priorities are expressed, they should be indicated in the EMP and should be a major factor in determining how ecotourism income will be spent.

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# Visitor Impact Monitoring and Management

## Introduction

Every time a visitor sets foot in an ecotourism site, he/she causes a negative impact. This is an unavoidable fact. An ecotourism program initiates many public use activities that will have impacts, both positive and negative. An Ecotourism Management Plan seeks to minimize the negative impacts and ensure that they are outweighed by positive ones. The monitoring and managing of visitor impacts are fundamental ecotourism management strategies but ones that are frequently left unattended. If you do not know what effects your ecotourism activities are having on the site's natural environment and the surrounding communities, then you cannot say that you are successful.

Careful monitoring of impacts, both positive and negative, needs to be a primary activity of the site's overall management. Monitoring costs money and requires trained personnel and the assistance of interested stakeholders.

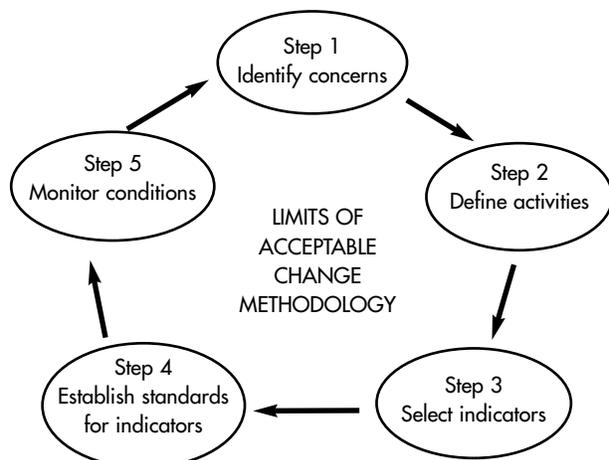
The first methods developed to address tourism impacts evolved from the concept of carrying capacity, which originated in the field of range management. Several definitions of carrying capacity have been offered in the literature depending on how and where the concept was applied (Ceballos-Lascuráin, 1996). Initially, it was used only to indicate how much tourism activity was too much. Researchers began to realize that looking only at numbers of visitors was not sufficient. They demonstrated that what visitors did, when they did it and a number of other circumstances were frequently more important in determining visitor impacts than simply the number of visitors.

The degree of impact depends upon many variables in addition to the amount of use: the degree of site hardening (making site trails, landings, overlooks resistant to erosion); the motivations and behaviors of visitors; the mode of visitor transport and lodging; the effectiveness of guides; and the season(s) in which

most use occurs. Therefore, when managers use the term "carrying capacity" they usually are referring to this more broadly-defined meaning: the amount and type of use that an area can sustain before impacts become unacceptable. The more simple and straightforward concept of carrying capacity—limiting numbers of visitors—can sometimes be used as a solution for mitigating impacts in restricted, small-scale situations, but not usually on a protected area basis or large ecotourism site situation.

There are two very good methodologies that can be used to monitor visitor impacts: "Measures of Success" and "Limits of Acceptable Change." Limits of Acceptable Change (LAC) has evolved specifically to allow tourism to address the shortcomings of the carrying capacity concept, although it has been applied to more general management situations. Measures of Success can be applied to any management planning situation, not just ecotourism, and relies primarily upon the setting of objectives that can be easily monitored. In order to measure the effectiveness of ecotourism as a conserva-

**Figure 5.1 Steps to Implementing Limits of Acceptable Change Methodology**



adapted from Stankey et al., 1985

tion strategy, the biodiversity health of the protected area needs to be monitored.

### Limits of Acceptable Change Methodology

LAC is a process developed by the United States Forest Service to address visitor impacts, primarily in wilderness situations. It accepts that change is inevitable but sets limits on what degree of change is acceptable. The basic concept involves determining a common vision of what a site's conditions should be, setting indicators and standards related to the amount of change stakeholders deem to be unacceptable in those sites, and then monitoring to continually assess where you are in terms of visitor impacts upon the previously-determined standards. When standards are not met, then management must adapt to mitigate negative impacts. Figure 5.1 shows a five-step process adapted from Stankey et al. (1985).

The LAC approach forces managers to come to grips with the details of management in a way that goes far beyond any figure for overall carrying capacity. By setting limits of acceptable change that involve as many stakeholders as possible, managers acquire much more

credibility when they request or require management changes that affect other people, such as tour operators, guides and community people.

These are the basic steps in determining the LAC (adapted from Wallace, 1993):

1. **Identification of Area Issues and Concerns:** Involving all stakeholders, identify the ecotourism site's unique values, attractions, opportunities, threats and problems.
2. **Define and Describe the Types of Desirable Activities:** This step should be done in the abstract, not thinking of any specific location. Consider all of the different types of activities that ecotourism might involve. The desirable activities should then be applied to specific sites/zones.
3. **Select Indicators:** These indicators should be selected for the management parameters that most concern you at a given site in a given zone. They should be indicators directly related to the activities of visitors that can be controlled (see Box 5.1).

#### Box 5.1 Types and Examples of Indicators

*There are five general types of indicators that must be monitored in some way by an ecotourism project:*

- Environmental (Biophysical)
- Socio-cultural Aspects
- Experiential
- Economic
- Managerial

Environmental (Biophysical) indicators:

- soil erosion at a particular site
- site spreading (vegetation loss in campgrounds or along trails)
- sea floor litter at mooring sites
- stress on a particular wildlife species (nesting success, animal aggression against visitors, etc.)
- illegal fires or campfires
- landslides along a road
- coliform bacteria count in river X, site X
- visibility from point X
- number of damaged trees in picnic area

Experiential (on visitors) indicators:

- number of encounters with other groups per day
- number of safety violations per month
- number of complaints about noisy visitors
- number of students using area for environmental education
- number of illegal hunters encountered in X location

- percent of visitors pleased with their visit to the area/site
- evidence of human waste
- number of return visitors
- visitor perception of naturalist guides

Economic indicators:

- number of ecotourism entrepreneurs in neighboring communities
- amount of entrance fees collected in a month
- average length of stay in the site/community
- overall contribution of ecotourism to site's budget (percentage)
- level of tourism employment
- level of investment in local public services and facilities

Socio-cultural (on communities) indicators:

- maintenance of traditional practices
- change in population
- reports of negative behavior by visitors towards residents
- change in crime rate
- number of visitors at local cultural events/sites
- perception of guides to ecotourism activity
- general perception of residents to ecotourism activity(ies)

Managerial (infrastructure) indicators:

- number and length of trails
- amount of time spent on infrastructure maintenance
- amount of graffiti found in campgrounds

adapted from Stankey et al., 1985



Protected area managers from Bolivia, Ecuador and Mexico discuss measuring visitor impacts at a Conservancy training workshop in the Galapagos.

The following questions should be asked when identifying indicators:

- i. Does the indicator tell us what we want to know? What question are we trying to answer?
- ii. Does the indicator relate directly to an important resource, social or economic condition?
- iii. Can the indicator be measured easily and relatively inexpensively?
- iv. Can the indicator alert managers to a deteriorating condition before it reaches an unacceptable level?
- v. Can the indicator be measured without affecting the quality of the visitors' experience?
- vi. Will the indicator provide information that is worth the time and cost needed to obtain it?
- vii. Who will carry out the necessary monitoring?

**4. Establish standards for each indicator:** The standards should set some limit of acceptable change. Some impacts are inevitable, but managers must be willing to say how much impact they will tolerate before changing the way they are managing. If trails are eroding faster than it is feasible to maintain them, if viewing areas are getting too big, if some animals are changing their behavior in an unacceptable way, then management actions must be taken (e.g., group sizes

reduced, hardening of some sites, fences put up, patrolling increased).

Establishing standards requires taking the indicators from the previous step and placing a quantitative value on them: e.g., two landslides per year; 90% of visitors who characterize their visit as "very enjoyable"; two new ecotourism entrepreneurs per year in community X; 25 individual monarch butterflies sighted along trail X between 10 and 11 a.m. on July 20th. Remember that these quantitative values represent limits of some sort that are acceptable; fewer than 90% of visitors who are "very satisfied," or fewer than 25 butterflies sighted along a given trail at a given time, means that managers must determine what is wrong and work to fix it. Establishing indicator standards should involve as many stakeholders as possible so that the standards agreed upon represent everyone's best faith effort and so that they will commit to trying to achieve these limits.

Some standards and indicators should be chosen from each general type of indicator mentioned above. They should also be chosen for each type of visitor environment, usually by using the zoning system set up in your Ecotourism Management Plan (see Volume I, Part II, Chapter 3). The types of visitor environment range from intensive use sites where lots of visitors will be found

### Box 5.2 Examples of Standards for Indicators

#### Biophysical (environmental)

- 30% bare ground at campground X
- minimum of five nesting robins along the Riveridge Trail
- three illegal campfires in the Blue Spring area during the calendar year
- two landslides along five kilometer stretch of entrance road from January-March
- ten mile visibility from summit of Green Mountain on a clear day in November
- three new damaged trees in picnic area during period June-September

#### Experiential (on visitors)

- one encounter with other groups during one day period in the primitive zone
- five visitor complaints per month about noisy visitors
- 100 students receiving environmental education classes at the visitor center
- 90% of visitors who indicate that they were "very satisfied" or "satisfied" with their visit to the area/site
- three visitors who indicate that they were disturbed by evidence of human waste in inappropriate locations

#### Economic

- two new ecotourism entrepreneurs in the Machalilla community in the next year
- 50,000 dollars collected in entrance fees during the year
- three day average length of stay in the site/community
- ecotourism revenue contributes 25% of site's overall budget

#### Socio-cultural (on communities)

- typical local food served in 50% of local restaurants
- three negative reports of visitor behavior in the Machalilla community per year
- two robberies per year in the Machalilla community
- 25% of site visitors who also visit local cultural events/sites

#### Managerial (infrastructure)

- total length of available trails increase 10% yearly for six years
- site personnel spend 50% of their time on infrastructure maintenance
- three examples of graffiti found in campground during three-month period.

(and there will be high impacts) to primitive and perhaps even wilderness zones, where a high degree of isolation may be desired and managed for (and visitor impact is generally lower).

Another major consideration in choosing standards and indicators is the availability of baseline information. If there is little or no information on which you can base your standards, then you will be making only a very subjective guess about what a realistic standard would be. At first, it may be appropriate to set provisional standards and later adjust them if need be. Bringing in relevant specialists, say a biologist who is familiar with a particularly pertinent species of plant or animal, may help in your decision making.

**5. Monitor conditions and implement actions:** If acceptable limits have been exceeded, make management changes that will bring resource, social or economic conditions back within acceptable limits.

#### The Measures of Success Methodology

The Measures of Success methodology applies the concept of adaptive management and sees monitoring as an

essential element of project planning and management. The monitoring program Margoluis and Salafsky (1998) describe is integrated into the project cycle and is developed as part of the conceptual model and management plan. Once project goals, objectives and activities are selected, a clear and precise monitoring plan is drawn up. The steps involved in this process are:

1. Determining the audiences for monitoring information.
2. Determining the information needed based on project objectives (which are prepared so that monitoring can determine whether or not they are being met).
3. Designing a monitoring strategy for each information need.
4. Developing one or more indicators for each information need.
5. Applying and modifying the indicators as needed.
6. Determining methods of measuring indicators by using four selection criteria: accuracy/reliability, cost-effectiveness, feasibility and appropriateness.
7. Developing an operational plan for applying the methods: listing the tasks, people responsible for

carrying out those tasks, monitoring the sites and a timeline for carrying out the plan.

Margoluis and Salafsky provide very detailed information on the types of monitoring designs, the censusing and sampling techniques, the quantitative methods, applying the methods, collecting and handling data, analyzing data and communicating results to various types of audiences.

In addition, they have developed another approach for determining project success that can be useful in some ecotourism circumstances. Entitled “Threat Reduction Assessment,” this approach identifies and monitors threats in order to assess the degree to which project activities are reducing the threats and achieving success. The process contains the following steps:

1. Define the project area spatially and temporally.
2. Develop a list of all direct threats to the biodiversity at the project site present at the start date. In the case of an ecotourism project, use the Conservation Area Planning (CAP) results obtained at the beginning of the planning process (see Volume I, Part II, Chapter 2) that identify the major threats to the ecotourism site, and determine strategies for mitigating them.
3. Rank each threat based on three criteria: area, intensity and urgency.
4. Add up the score for each threat across the three criteria.

### Box 5.3 Monitoring the Great Curassow in El Imposible National Park

El Imposible National Park in western El Salvador is one of the country’s few natural areas. It is small, only about 5,000 hectares in area, yet contains a rich diversity of plants and wildlife. As part of its monitoring program, the park organizes an annual “Día del Paujil” (Paujil Day). The paujil is a Great Curassow (*Crax rubra*), a large bird that is relatively easy to observe. The park is the only place in El Salvador where it is found, so keeping track of its well-being provides an indicator not only of its overall numbers in the country and the park but also of the general state of the park’s environment. On Paujil Day, park staff, naturalist guides and other community members join together, form teams and cover almost all of the park to complete an inventory of the paujil’s numbers. In this manner, the park not only keeps track of the paujil’s population, but provides an opportunity for others to contribute to the park and creates a public relations opportunity.

personal communication, Alan Moore, 2004

5. Determine the degree to which each threat has been reduced by management activities.
6. Calculate the raw score for each threat.
7. Calculate the threat reduction index score.



Strictly observed trails limit visitor impact on wildlife in the Galapagos Islands, Ecuador

While natural science methods can be used, less precise social science approaches are often easier to apply, particularly by or about community members/projects. Community members become active participants in future mitigation activities by being involved in this assessment.

### Public Participation

While both LAC and Measures of Success require high levels of participation in the planning and operational phases of a monitoring program, Rome (1999) recommends the development of a monitoring plan according to a multi-step process that strongly emphasizes public participation at practically all levels. According to

Rome, the process should be guided by a steering committee composed of protected area/ecotourism site managers, tourism industry representatives and community leaders. It would include the following steps:

1. Community meeting to discuss concerns and potential impacts of ecotourism.
2. Steering committee meeting to determine indicators and measures and to assign monitoring responsibilities.
3. Community meeting to present monitoring program and to discuss limits or ranges of acceptable change.
4. Training of monitoring and analysis team.
5. Implementation of monitoring.

#### Box 5.4 Some Strategies and Tactics for Managing Resource Impacts or Visitor Crowding and Conflicts

##### I. REDUCE USE OF THE ENTIRE AREA

- Limit the number of visitors to the entire area.
- Limit the length of stay in the entire area.
- Encourage use of other areas/sites.
- Require certain skills and/or equipment.
- Charge a higher visitor fee.
- Make access more difficult.

##### II. REDUCE USE OF PROBLEM AREAS

- Inform potential visitors of the disadvantages of problem areas/sites and/or advantages of alternative areas/sites.
- Discourage or prohibit use of problem areas.
- Limit number of visitors in problem areas.
- Encourage or require a length of stay limit in problem areas.
- Make access to problem areas more difficult and/or improve access to alternative areas.
- Eliminate facilities/attractions in problem areas and/or improve facilities/attractions in alternative areas.
- Establish differential skill and/or equipment requirements.
- Charge differential visitor fees.

##### III. MODIFY THE LOCATION OF USE WITHIN PROBLEM AREAS

- Discourage or prohibit camping and/or stock use on certain campsites or other locations.
- Encourage or permit camping and/or stock use only on certain campsites or other locations.
- Locate facilities on durable sites.
- Concentrate use on sites through facility design and/or information.

- Discourage or prohibit off-trail travel.
- Segregate different types of visitors.

##### IV. MODIFY THE TIMING OF USE

- Encourage use outside of peak periods.
- Discourage or prohibit use when impact potential is high.
- Charge fees during periods of high use and/or high impact potential.

##### V. MODIFY THE TYPE OF USE AND VISITOR BEHAVIOR

- Discourage and/or prohibit particularly damaging practices or equipment.
- Encourage or require certain behaviors, skills, and/or equipment.
- Teach correct ecotourism ethics.
- Encourage or require a group size.
- Require or encourage use of guide.
- Discourage or prohibit horses, mules, donkeys.
- Discourage or prohibit pets.
- Discourage or prohibit use of radios, cassette players, etc.
- Discourage or prohibit overnight use.

##### VI. MODIFY VISITOR EXPECTATIONS

- Inform visitors about appropriate uses.
- Inform visitors about conditions they may expect.

##### VII. INCREASE THE RESISTANCE OF THE RESOURCE

- Shield the site from impact (fences, natural barriers, etc.).
- Strengthen the site (tent platforms, drainage pipes, paved trails, etc.).

adapted from Marion and Farrell, 1998

**Table 5.1 Visitor Management Methods**

Indirect Methods	Direct Methods
<ul style="list-style-type: none"> <li>• Environmental education/interpretation</li> <li>• Information/diffusion</li> <li>• Site manipulation</li> <li>• Zoning</li> <li>• Infrastructure and facility design</li> <li>• Type and degree of maintenance</li> <li>• Ease or difficulty of access</li> </ul>	<ul style="list-style-type: none"> <li>• Fees and costs</li> <li>• Restrictions</li> <li>• Patrolling/human presence</li> <li>• Requirements to participate in certain skilled activities</li> <li>• Permits and licenses</li> <li>• Designated sites (camping, picnics, etc.)</li> <li>• Trained guides</li> <li>• Rules and regulations</li> </ul>

6. Analysis of results, evaluation of management needs and small-scale management adjustments made.
7. Community meeting to discuss monitoring results and management recommendations.
8. Continued implementation of monitoring and management.

### Obtaining the Information

Using management objectives, indicators and standards to assess overall progress requires the ecotourism site's management to have a specific monitoring program that has been incorporated into the site's routine management scheme. Monitoring requires that certain kinds of information be collected on a systematic, routine basis. Base-line information is needed to compare with subsequent data and to assess the direction management is taking.



# LAGUNA COLORADA

Sistema Nacional de Áreas Protegidas  
del Estado Plurinacional de Bolivia



## REGISTRO DE INGRESO DE TURISTAS A LA RESERVA NACIONAL DE FAUNA ANDINA "EDUARDO AVAROA"

Nombre de la Agencia _____	Placa y Color Vehículo _____
Nombre del Chofer _____	Nº Licencia _____
Nombre del Guía _____	Nº Registro _____
Retén de Control _____	Fecha de Ingreso _____

Nº	Nombre y Apellido First and Family Name	Sexo Sex	Nacionalidad Nationality	Nº Pasaporte Passport Number	Número de Factura Ticket Number

**OBSERVACIONES**

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Information on numbers and nationalities of visitors can be collected on registration forms such as this one used in Bolivia's Eduardo Avaroa National Reserve.

The collection of baseline data and subsequent data should involve procedures that are relatively simple to implement and do not require large investments of time or cost to the site's administration. To the extent possible, the cost of the monitoring program should be financed from ecotourism revenues.

Most of the data should be collected by the site's staff, but strategic use of third parties such as university biologists, naturalist guides, concessionaires and community members should also be considered. Naturalist guides may also be recruited to carry out certain observations on a routine basis. Cooperative agreements can be signed with local universities that permit scientists (e.g., biologists, ecologists) to carry out research in return for providing information that will supply baseline data, or to provide data on an ongoing basis that will allow monitoring of a particular management concern. Site staff may need special training to collect certain data. University scientists can train rangers to identify certain insects, bird songs and plants that may be the object of monitoring activity. They can also be trained to take water samples and even do some basic water sample testing.

Some types of data that need to be collected on a daily, systematic basis (which requires a very good recordkeeping system) include: visitor numbers and other visitor characteristics (e.g., age, nationality), fee collection amounts, and visitor observations and complaints.

In addition, ecotourism management requires frequent evaluation of visitor characteristics and levels of satisfaction with different aspects of the site: facilities, staff, interaction with other visitors, etc. This is usually done using surveys and questionnaires, which can be carried out by site staff or third parties. Ideally, a standard survey addressing the management objectives and indicators of concern should be prepared and presented to a random sample of visitors on a regular basis (for example, every quarter); alternatively, a select group could be targeted on a more frequent basis, depending upon what is being measured.

Visitor comment registers can be placed in strategic places to obtain visitors' opinions. While this is not a scientific method for obtaining visitor input, it can give a sense of what visitors are thinking.

### **Visitor Management Strategies and Alternatives**

If you have determined that you are not reaching management objectives or that you have exceeded a limit of acceptable change, you must adapt your management strategies to this new situation. Table 5.1 is a framework for considering visitor management strategies.

Box 5.4 provides some guidance regarding specific tactics and strategies to employ when faced with a visitor impact issue.

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# Naturalist Guides — the Heart of Ecotourism

## Introduction

Naturalist guides play a central role in the implementation of the ecotourism concept. They are the principal providers of the educational element to the ecotourism activity, and their capacity and commitment ensures that the negative impacts of tourism are minimized. At the same time, guiding is an obvious economic opportunity for people from local communities. These and other important benefits underline the importance of a protected area establishing and implementing a naturalist guide training and licensing program.

## Background

The use of tour guides in protected areas is not a new phenomenon. Guides have been a part of nature tourism in many places for many years. They have accompanied tourists on safari in East Africa for several decades. They have traveled with tourists on the boat tours which millions of visitors have enjoyed on the Patagonian lakes of Argentina, particularly in Nahuel Huapi National Park. These tour guides usually were employed by private tour operators and had little or no relationship to the protected area they worked in. Over the years, this situation began to change as protected area managers realized the potential for using guides to increase contact with visitors and for accomplishing other ecotourism objectives as well.

## The Roles of Naturalist Guides

Naturalist guides truly play a multifaceted role. They have responsibilities to their tour operator employers, to their clients the visitors, and to the protected areas and communities where they work.

Tour operators count on guides to provide experience-enriching interpretation of natural and cultural attractions to add value to the tourists' itinerary. They also require guides to manage logistical aspects of trips in the field, such as coordinating with accommodation, food and transport service providers. Guides are responsible for the tourists' safety and in general represent their tour operator employer in the field.

Tourists look to the naturalist guide for information, interpretation and insight about the places they are visiting; for help preparing for a visit through formal briefings and informal talks; and generally to be a friendly, knowledgeable intermediary with unfamiliar places and people.

Protected area authorities look to the guides as extensions of the park ranger staff, to educate the visitors, to protect the natural and cultural resources of the area visited, to participate in monitoring programs and generally to support the conservation objectives of an area.

In addition to these roles, a naturalist guide should seek to inspire visitors to become supporters of conservation.

## Nature Interpreters

Environmental interpretation is a subset of communication that focuses on how best to explain environmental/ecological concepts to the general public. One of the central tenets of ecotourism is to educate the visitor. Naturalist guides, who spend a considerable amount of time with visitors, are in a perfect position to educate through skilled interpretation. Many local residents have a detailed knowledge of the plant and animal life as well as of other natural and cultural attractions. They can also relate first-hand experiences with wildlife, medicinal plants and other local phenomena.

## Conservationists

As the main contacts that visitors may have with an ecotourism site, guides serve as important role models both to visitors and their own communities. Their attitude and behavior send an important message to others about the ecotourism concept. Does the guide pick up pieces of trash along the hiking trail? Does the guide actively support and cooperate with site managers by reporting illegal activities? Does the guide adapt ecotourism to his/her own home and community situation?

Some tour guides make a point of discussing the importance of conserving the incredible diversity found

### Box 6.1 Naturalist Guides in the Galapagos National Park

The Galapagos National Park in Ecuador is perhaps the first protected area where guides were actively utilized to advance ecotourism objectives in an organized manner. All guides are employed by private tourism companies. Since 1975, all guides must be licensed by the national park administration, and all visitors are required to be accompanied by a licensed naturalist guide. Two categories of guides were established initially:

1. *naturalist guides*: university educated with a natural science degree, bilingual, foreign born and worked primarily on the larger ships with larger groups of visitors;
2. *auxiliary guides*: usually local residents with secondary education, minimal foreign language skills and worked primarily on the smaller boats, often converted fishing boats.

To obtain a license, guides must pass an intensive four-week training course taught by staff from both the Galapagos National Park and the Charles Darwin Research Station. Training courses have been developed for both guide categories and are conducted annually. A licensed tour operator must sponsor participants in the courses.

At first, naturalist guides were mostly foreigners; over time, more Ecuadorians obtained natural science degrees, developed language skills and gradually displaced foreign guides. There is still a small percentage of foreign guides, and their international perspective enriches the pool of experience of the guide corps in general.

By creating a guide system in the Galapagos National Park, park authorities supplemented their work force with a group of motivated, knowledgeable guides who accompany every tour group that enters the national park. In order to retain their licenses (and a lucrative job), guides are required to make sure that visitors follow all park rules, make trip reports after each trip and report on illegal activities that they may observe, such as illegal fishing boats. Guides are also active participants in monitoring tourism impacts at visitor sites. A local guide association supports conservation efforts in the park and in the islands in general and actively participates in regional planning meetings.

Many other protected areas have adapted the Galapagos Islands experience to create naturalist guide systems of their own.

at a site, what the major threats to it are and what visitors might do to help conserve it.

### **Park Rangers**

Unfortunately, not all visitors to ecotourism sites know how to behave appropriately in sensitive natural and cultural settings. It is the guides' responsibility to ensure that visitors are aware of all applicable rules and regulations as well as other relevant ethical considerations. In a polite but firm manner, they must make sure that visitors comply with whatever restrictions there may be. This is perhaps the most difficult role that guides have because their major responsibility is to help provide visitors with an enjoyable experience. As members of the private sector, it can, in rare situations, create a conflict of interest between the guides' conservation obligations and their obligation to the visitor and, in some cases, their employer. For example, a tour operator might promise clients a close encounter with a whale, but a guide may judge that at a given moment the whales seen in the distance are nursing young and should not be approached. The guide's obligations to an employer and to a park authority might be divergent at this point. Guides need special training in how best to deal with these situations. They also must be vested with the authority to report and deal with infractions of rules and regulations.

### **Monitors of Tourism Impact**

Since guides visit the ecotourism site/protected area on a frequent basis, they are in a unique position to notice cer-

tain kinds of impact, such as trail erosion, increasing rareness of a particular bird species, etc. They are also in an excellent position to carry out formal monitoring observations for the site's managers. In many places, guides take the time to carry out observations of the number of nesting birds or of the regeneration of a plant species in a designated quadrant. This can be of valuable assistance to a site's managers when they are short-handed or simply do not have trained personnel to carry out these tasks.

### **Liaison with Local Communities**

When guides are from local communities, they can serve an important role in improving communication between the site's administration and local people. This is particularly important when there may be some misunderstanding between the two different "communities," which there frequently is. Naturalist guides in the Galapagos Islands and other places have established their own organizations to further conservation objectives. In the Galapagos Islands, they have been especially helpful in obtaining local support for the Park Service in the face of illegal fishing activities originating outside the islands.

### **Conditions for a Successful Naturalist Guide System**

In order for a naturalist guide system to work well in an ecotourism site situation, several conditions must be met.

#### **Control and licensing**

The site must have effective control over the use of guides and the conditions under which guides will operate with-

in the site. This implies that managers either own the site or that there is legislation or some other legal mandate for exercising this control. Most effective guide systems have a licensing mechanism. The site's administration, or some higher authority acting at the administration's request, will issue a license to guide visitors within the site if the guide complies with relevant rules and regulations. The site's administration reserves the right to suspend or revoke the license if a guide's behavior is inappropriate. Licenses are usually extended to those individuals who pass a training course or a test. The site's administration reserves the right to set other criteria for attending a training course, such as: being a member of a local community, being of a minimum age, the absence of a police record and having a minimum level of education.

It is important to avoid flooding the market with too many licensed guides as this would force down wage levels as many compete for an insufficient number of jobs. However, it is necessary to have a sufficient number of guides to satisfy demand; a rough guide would be to license about 25% more guides than will be working each season.

### ***Mutual benefits***

In spite of the control that the site's administration must exercise over the guides' activities, the relationship between them should be more than one of employer and employee. Both the site administration and the guide have much to offer each other, and they should actively carry out their respective roles in order to benefit from each other's work. Unfortunately, it is not uncommon for one side or the other to lose sight of their mutually supportive roles and for the relationship to become non-productive. Constant and positive feedback is the best way to avoid this situation. Involving tour operators and guides in the ecotourism program planning process from the beginning is also crucial.

### ***Training***

Naturalist guides need training in order to fulfill the many roles they are charged with. The primary themes for a training course curriculum are listed below.

- ❖ **Natural history of the site and surrounding areas.** What are the major species, plant and animal communities and ecosystems? How do they interact with one another? What is their conservation status?
- ❖ **Cultural attractions.** What are the historical, archaeological and traditional cultural activities that can be found in the site and surrounding areas? What is the relationship between natural and cultural attractions?

- ❖ **Site conservation priorities and activities.**

Guides should be able to explain to visitors what the site's management is doing to further the conservation of the natural and cultural resources found in the site as well as how the site relates to other protected areas and the surrounding communities.

- ❖ **Rules and regulations.** Guides need to be aware of all the rules and regulations governing public use of the site and its facilities. In particular, they need to be aware of what ecotourism is and how it is applied at this site.

- ❖ **Group management.** All guides need to learn how to best manage a group of visitors that can have widely varying attention spans and reasons for being there. Maintaining everyone's attention and keeping the group together can sometimes be a major chore. Experienced guides are sometimes the best people to teach this part of the course.

- ❖ **Interpretive/communication techniques.** There are very special techniques for communicating ideas to a group of disparate people. Learning the techniques comes easily for some guides; for others, a significant amount of time will need to be spent.

Training should not be a one-time event for guides. Good guides should be continually refreshing and updating their knowledge, and the site's administration should consider carrying out periodic courses for this purpose. Courses should be developed with, and at least partly financed by, the tourism industry. In addition to specialists in each of the themes outlined, tour operators should be instructors in courses, as should older, respected members of the local community.

Young men often dominate the competition for places in guide training courses, but it is important to ensure that women participate too. They make good guides, and at least 50% of tourists are women!

Rare (formerly the RARE Center for Tropical Conservation), with the support of The Nature Conservancy, has developed a comprehensive guide training manual that is highly recommended (RARE, 2001).

### ***Guide availability***

Ecotourism encourages the inclusion of local people in as many circumstances as possible. While it may be useful to utilize local people as naturalist guides, managers should realize that residents may not be "natural" naturalist guides. Their interests or educational levels may be obstacles to reaching the level of expertise required of guides at a site. Significant training may be needed before they can function effectively.

### **Work availability**

Work availability is a very sensitive issue in many situations. Naturalist guides have the potential to earn significantly more money than other members of their community. For this reason, when a site initiates a naturalist guide system, there are sometimes many more candidates than available work. Managers must be careful not to create high expectations among guide candidates, especially if visitor numbers are not sufficient to guarantee work for everyone. If some candidates for a training course are selected over others who appear to have similar qualifications, conflicts may arise. Site managers may do several things to minimize these problems:

- ❖ Ensure that specific criteria are used to select guide candidates and that the criteria are strictly followed.
- ❖ Limit training course size to a specific number of people and accept candidates on a first come, first serve basis.
- ❖ Initiate policies that encourage or mandate the use of local guides in the ecotourism site or in specific locations or zones within the site. This may cause conflicts with other, non-local guides. See the following section on “Local vs. non-local guides.”
- ❖ Encourage the creation of a naturalist guides association that will help to organize guides and their response to a limited number of guiding opportunities, e.g., a system of rotation. This is also an excellent way to minimize cutthroat competition and to standardize prices. The site could mandate that guides charge only a certain amount for a given service, but the mandate would be better received and complied with if the guides were allowed to determine their own price structure.

### **Local vs. non-local guides**

It is not uncommon for organized tours to arrive at an ecotourism site with a guide who works with the tour company and comes from the capital city, or even another country. Sometimes these guides are very knowledgeable about the site, but many are not. However, local community members should be given priority for positions as naturalist guides. In the case of areas that are ancestral lands of local communities, hiring a trained local naturalist guide should be obligatory. If tour operators require higher level scientific interpretation, they may choose to hire a university educated non-local guide to also accompany their clients. Training courses for local guides will likely emphasize different themes than courses for university-educated naturalists.

If the situation is developed appropriately, guides from both categories can learn a lot from each other. Regardless, all guides should take and pass the training course and be licensed. It should be mandatory to train and provide licenses to local guides.

### **Language skills**

Local guides can face a language barrier since most ecotourists are from another country, usually one where a different language is spoken. Local guides can be very ingenious at communicating with visitors whose language they do not speak. However, they cannot express themselves at the level that a high quality naturalist guide would need to communicate effectively, e.g., expressing complex ideas and concepts.

When the Galapagos Islands naturalist guide system began, most local guides did not speak any English. Twenty-five years later, almost all of them speak some English or another European language. Some of these guides learned another language on their own by listening and talking to visitors, others took special courses. This ability to communicate in another language has also increased the fee they can charge.

Rare has developed a nature guide training course that develops knowledge and skills while teaching English (RARE, 2001).

### **Conclusion**

This chapter shows that a pool of trained and licensed naturalist guides can be a tremendous asset to protected area conservation. Creating a naturalist guide program should be a high priority for all sites with an ecotourism program.

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**Part II**

**Business Planning for  
Conservation Managers**

## Introduction to Part II

Though conservation NGOs rarely want to develop businesses themselves, they are often called upon to facilitate ecotourism business development in a community. Similarly, protected area managers frequently need to interact with the tourism private sector in the tourism planning and management processes. The goal of Part II of this volume is to enable conservation professionals to participate more fully in the ecotourism planning process, and ultimately form more productive partnerships with ecotourism businesses, by familiarizing protected area managers, conservation NGOs and community organizations with the concepts and terminology of ecotourism business development.

Part II also presents a broad vision of cooperative relationships between businesses, NGOs, protected area management staff and communities that are required for successful ecotourism to meet the objectives of

achieving financial, conservation and social goals. By providing an understanding of the concerns of business owners and the vocabulary used in business, Part II seeks to facilitate more productive engagement of conservation professionals with the business sector.

Chapter 1 presents an overview of business considerations in ecotourism. In Chapter 2, the various roles that conservation managers may play in the business planning process are explored. Chapter 3 examines the issues involved in forming partnerships with tour operators. Chapters 4, 5 and 6 present the central elements involved in performing a feasibility study, creating a business plan, and financing an ecotourism business. The information is intended to be introductory rather than exhaustive; additional resources at the end of each chapter should be consulted for more in-depth support.



Local fishers attend a Conservancy training workshop on ecotourism business planning as an alternative to unsustainable fishing in the Galapagos Marine Reserve.

# Chapter 1

## An Overview of Business Considerations

### Introduction

Protected area conservation increasingly requires innovative strategies to generate adequate levels of finance. Ecotourism is a strategy that can provide at least part of the needed revenue. In order to adequately harness tourism's revenue potential in a sustainable fashion, conservation managers need to acquire a minimum level of understanding of business dynamics. The purpose of this second part of Volume II is to guide conservationists through the concepts and terminology involved in business development that can be daunting as they are typically outside their professional and academic experience.

Ecotourism can provide benefits to local communities and promote the conservation of environmentally sensitive areas while offering unique cultural or nature

travel experiences. It seeks to avoid many of the problems of mass tourism in which environmental degradation often results from overuse, or where economic leakage occurs as money flows from a travel destination to developed countries. Ecotourism is also seen as a desirable economic activity because it educates people about sustainable ways to travel and channels their expenditures to cooperatives or locally-owned businesses in host communities. This promise makes ecotourism an attractive conservation strategy, but it is essential to remember that, in order to achieve these social and environmental benefits, an ecotourism enterprise must operate as a viable business. Quite simply, the business must eventually take in more money than it pays out. Conservation funds and community time and interest are valuable commodities that should not be wasted on fruitless business ideas (see Box 1.1).

#### Box 1.1 The "Build It and They Will Come" Assumption

*In an interview with the Biodiversity Conservation Network (BCN), project manager John Sengo (JS) discusses a community-based ecotourism enterprise begun in the Lakekamu basin of Papua New Guinea.*

BCN: Where did the inspiration for the guesthouse come from?

JS: After the first year in 1994, we had a training session about ecotourism. One of the guys got all inspired and wanted to build a guesthouse. He organized his family and built the place. This was really hard. I was glad that he was showing interest, but I was worried about not having any guests come. They built the house and then they started asking when the tourists would come. I didn't know what to tell them.

BCN: How did you feel about this?

JS: At the start I had real reservations. I was pleased that they were showing interest in the project's ideas, but I was worried about where the visitors would come from. And this has turned out to be a problem. Only a few people have come and already the guesthouse is starting to fall apart. I feel responsible for what has happened and that I let them down. Even now, when I go back to the Basin, they ask me, "When will they come? Is there any news of tourists coming?"

BCN: BCN calls this the "If you build it, they will come" assumption. It seems to be a common trap in ecotourism projects. How can you avoid this?

JS: I think I should have told them more about marketing. How they would have to do their own marketing. I should have made sure they were adequately prepared for the potential results and that they had realistic expectations. And yet it's hard to stand by. We had problems with the logging companies and felt we couldn't discourage the people's interest. We knew that representatives of the companies were coming to talk to the people and we knew that we had to offer some source of income to the communities.

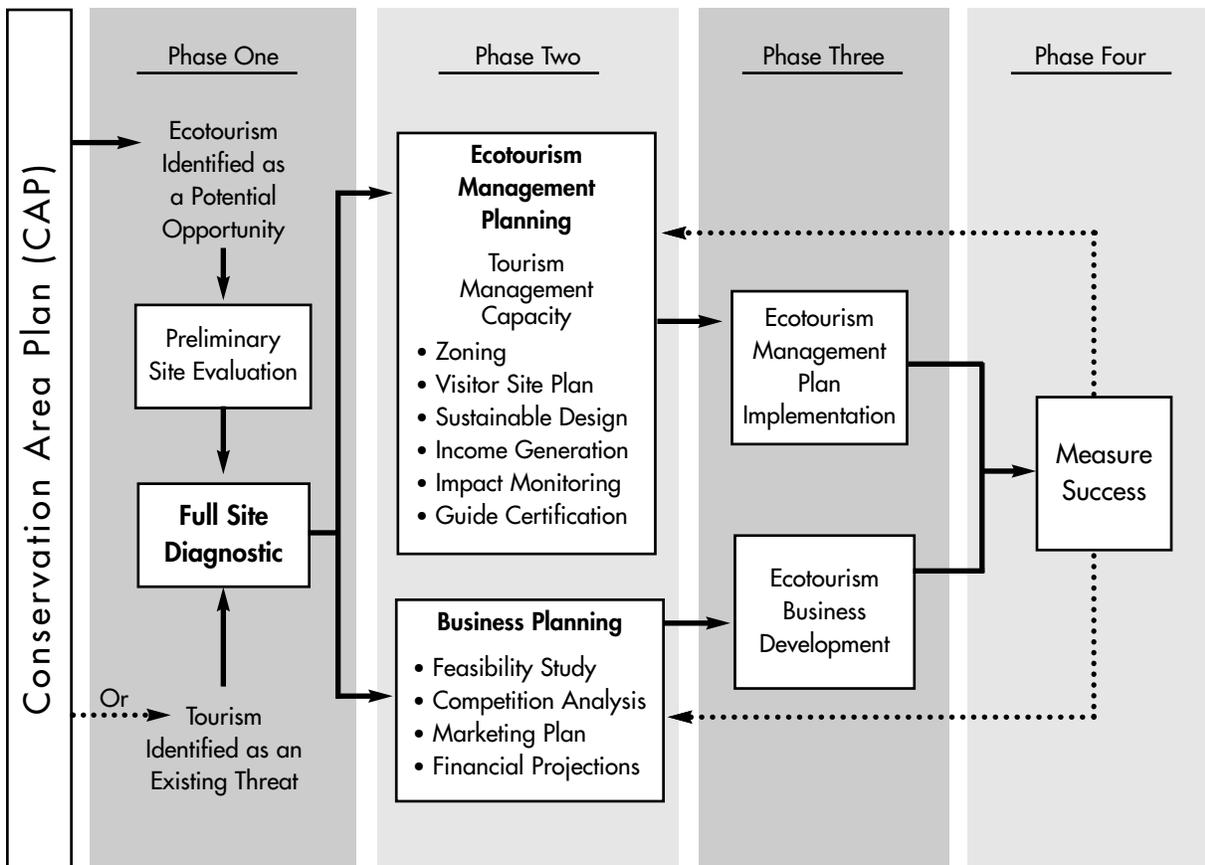
*This guesthouse needed more than marketing assistance; from the beginning JS should have conducted a feasibility study to determine if the location was appropriate, if the enterprise would achieve its conservation objectives, and if the business would be financially viable.*

source: Biodiversity Support Network, 1998

Many conservationists are wary, often due to a lack of experience, of negotiating partnerships with entrepreneurs they encounter in the tourism industry or in community businesses. Nevertheless, the knowledge entrepreneurs have of tourism marketing and business can dramatically increase the chances of success for an ecotourism venture by providing market-tested advice on how to start and run a tourism business. However, tourism operators may lack a complete understanding of ecotourism and its social and environmental parameters.

As described in Volume I, Part I, the tourism industry has a value chain to make tourism products available to consumers. An understanding of the infrastructure, organizations, and cost structures that operate in this chain is important in the overall planning of an ecotourism site. Private tour operators and NGOs, such as ecotourism trade or marketing associations, may be active partners in the feasibility or business planning process, but managers and planners of conservation areas still need to be familiar with key concepts to ensure that a holistic approach is taken to the develop-

**Figure 1.1 An Overview 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. Note: For a list of the chapters pertaining to each step, please see the diagram on page 110.

ment process. In fact, the most significant contribution of protected area managers can be their ability to see the bigger picture and ensure that social and environmental costs and benefits are added to economic considerations when business plans are developed.

### **Protected Area Management and Business Planning**

A protected area manager is responsible for the conservation of natural areas. If ecotourism is selected as a conservation strategy, at a minimum a protected area manager needs to ensure that Conservation Area Planning occurs prior to ecotourism development (see Figure 1.1). It is also critical that the protected area manager understands the risks of operating an ecotourism business inasmuch as entrepreneurs can be overly optimistic about an area's potential or can overlook the environmental costs associated with an undertaking. The failure of an ecotourism venture could be more damaging to long-term conservation management than if no venture had been undertaken in the first place.

Protected area managers use the tools available to them, including the general management plan and Tourism Management Plan, to define if tourism business development is appropriate and where it should take place. A Tourism Management Plan includes zoning maps for tourism use and the parameters for visitation, and it describes the tourism concession framework that should orient any business in the protected area. It is crucial that protected area managers be fully consulted at an early stage in the business planning process. Tourism operators must be fully

aware of the norms and expectations of protected area managers prior to advancing with the business.

### **Financial and Environmental Viability**

A feasibility study, or analysis, is a determination of whether or not a business idea is worth pursuing based on whether it will be financially viable. Ecotourism feasibility studies differ from others in that they must demonstrate both financial and environmental viability, which includes making a positive contribution to the conservation of the area's natural resources and generating sufficient profit and financial return for its investors. The steps for conducting a feasibility analysis are described in Chapter 4 of this part of the manual.

The balancing of environmental and economic considerations is a business challenge to many tour operators. Tourism businesses do not typically include the costs of ensuring environmental sustainability in their budgets. Avoiding negative impacts often requires smaller group sizes and potentially smaller revenue streams or greater costs due to operating in remote locations with greater regard for the environment. Higher standards may mean that a project will not be financial viable. It may prove difficult to quantify conservation costs and benefits or to measure if progress is being made in these areas during the implementation phase (see Box 1.2). But by including the cost of impact monitoring in the budget, it is far more likely that an ecotourism business will produce the conservation and financial benefits it seeks.

#### **Box 1.2 Ecotourism Development and Management in the Rio Platano Man and the Biosphere Reserve, Honduras**

Within the La Mosquitia region of eastern Honduras is the Rio Platano Man and Biosphere Reserve (RPMBR). This area is rich in biotic diversity and is home to four ethnic groups. It is one of Central America's largest protected areas and has been described as Central America's "Little Amazon." The NGO MOPAWI (Mosquitia Pawisa-Development of Las Mosquitia) has been active in the area for 16 years and became involved in ecotourism in 1994 in response to a community desire for economic opportunity and concerns about outside tour operators bringing groups to the area. The Pech river community of Las Marias, the Miskito coastal community of Rais Ta, and the Garifuna coastal community of Plaplaya, have developed and managed ecotourism using a variety of community-based strategies. In each there is broad community participation and local ownership and control of visitor services and infrastructure.

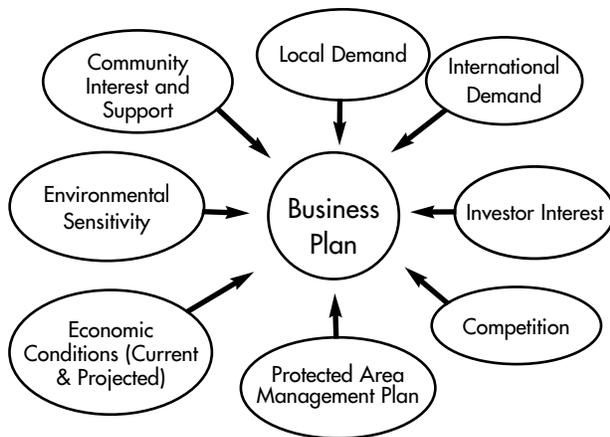
Recent studies (Neilsen, 2001) indicate that, while there have been significant economic benefits from ecotourism, the effects on conservation goals have been less clear. Beach turtle guards have been hampered by their lack of experience and training, resulting in tourist approaching turtles too closely. Additional boat traffic to transport tourists has increased water pollution. The increase in local incomes has meant that people can afford chainsaws and rifles, which have had negative impacts on the environment. The income from ecotourism has also created some local tension over distribution of these monies. However, it is felt that, with time and adherence to the existing planning and management strategies, progress will be made towards conservation and socio-cultural goals. The interaction between ecotourists and locals has led to an increase in local pride and value of the reserve and its resources. Local organizations are becoming more established and gaining experience in managing ecotourism activities.

Feasibility studies should be performed early in the planning process and involve the target owners, ideally with NGO support. Where deficiencies in the proposed business plan are found, it may be possible to alter the type or location of the ecotourism venture, or change the marketing strategies, to create a feasible product. It is also important to have people with ecotourism business experience involved in the feasibility study as they can provide the expertise and objectivity needed to honestly assess a project's potential; a host community often will not fully appreciate how local features might appeal to ecotourists, or may overvalue the attractiveness of a resource based on traditional values or emotional attachment.

### Business Planning

Once an ecotourism project has passed the feasibility test, a business plan is required before development proceeds. The business plan is a more detailed review of a specific activity, attraction or service. The plan requires the enterprise to outline its targets with respect to marketing, operations, management and environmental issues. The financial impacts of these targets must be analyzed to ensure that investor and creditor expectations can be met. The elements of a business plan are shown in Figure 1.2 and described in detail in Chapter 5.

Figure 1.2 Factors Influencing a Business Plan



adapted from Stankey et al., 1985

Critical decisions that must be made during the business planning process include:

- ❖ how to position the ecotourism enterprise in the market in relation to its competitors
- ❖ the best price level for the ecotourism product
- ❖ how environmental costs and obligations will be reflected in ongoing operations costs
- ❖ what combination of debt and equity financing is most desirable
- ❖ what criteria and methods are to be used to measure success.

Managers of protected areas can provide valuable input to these decisions by identifying social and environmental costs, providing direction on sustainable tourism practices, and suggesting possible methods for measuring non-financial results. For example, protected area managers can provide information on:

- ❖ trails or sites that can withstand tourist visitation with minimal environmental impact
- ❖ locations that provide safe and rewarding wildlife viewing opportunities that don't disturb animal behavior or habitat
- ❖ times when ecotourism activities may not be suitable, such as during breeding seasons for sensitive species
- ❖ possible ways to measure such visitor impacts on trails as levels of erosion, littering or introduction of non-native species
- ❖ various attractions and the conservation value that the protected area has to the country and the world.

This information will considerably enhance the visitors' experience and assist in creating a tourism business that adheres to sustainable planning principles.

### The Roles of NGOs in Ecotourism Business Development

An NGO may play a variety of roles in the feasibility assessment and business planning of an ecotourism venture. Some may be passive, i.e., the role of observer, while others could require the NGO to take the lead. An understanding of the risks and responsibilities of each of these possible roles is helpful in choosing the appropriate action for each ecotourism development.

1. Some NGOs act as *facilitators* between players in the ecotourism context. The NGO can facilitate discussion by providing an impartial context in which an objective decision can be made on a project's feasibility. Lacking this venue, the danger exists that

feasibility may be assessed by entrepreneurs without proper allowance for environmental factors, or by protected area managers or communities that are not familiar with the intricacies of the global tourism industry.

By increasing the level of understanding of the community, entrepreneurs and protected area managers contribute to a better judgment on the economic **and** environmental feasibility of an ecotourism venture. Sharing information and holding discussions at an early stage of the planning process can allay fears that tourism will harm the site or that the community will not benefit.

2. NGOs could *partner* with, or provide services to, a community-based ecotourism enterprise or private company. The partnership could take a variety of forms depending on circumstances: the NGO could help the ecotourism enterprise with financing, leasing land, marketing, promotion or impact monitoring.
3. NGOs often have developed capacity as *trainers* and can be sources of relevant technical information and expertise. Communities and tour operators can benefit from this training, especially in the areas of guide training and tourism management strategies.

NGOs can improve employment and entrepreneurial opportunities by sharing information on what ecotourism is and what a business venture might look like, e.g., the selling of local handicrafts or the provision of lodging. Some NGOs could provide group training to improve the organization, participation and service level of community offerings.

4. In cases where NGOs *manage or co-manage* private or government protected areas, their participation in the ecotourism feasibility process requires them to determine:
  - ❖ how ecotourism may be used to achieve site management goals
  - ❖ what levels and types of tourism activities are appropriate for the site
  - ❖ how ongoing ecotourism activities will be monitored and evaluated.
5. In rare situations, NGOs *provide ecotourism services* such as tour promotion and organization, lodging, transportation and food services. This role carries a great risk in an industry with a high failure rate, and the energy and resources diverted to these activities

could diminish the NGO's ability to carry out its conservation mission. If an NGO is a service provider, it must separate the conservation activities from the business activities to ensure that conservation funds do not subsidize the business.

The question should be asked, if no entrepreneur is coming forward to start an ecotourism business, why not? Analyzing this barrier to entry may lead to the identification of another facilitation role the NGO should play. Or it may result in deciding that the venture is not feasible and that therefore it would require subsidy and should not be pursued.

Being responsible for both business and conservation planning can provide a well-integrated approach to ecotourism development if an NGO has sufficient resources and skills for both roles; to be successful, it is important that an NGO not overestimate its knowledge of the tourism industry or underestimate the difficulty of developing a successful product. A preferred alternative is to seek an alliance or establish a joint venture with an existing private tourism business to benefit from their market linkages and experience rather than to offer a competing service.

### **The Risk Factor in Ecotourism Business Development**

The ecotourism industry is complex and aspires to generate social and environmental benefits. The fragmented nature of the industry, the demand fluctuations precipitated by world events, and competitive forces, make predicting market and product trends difficult. Providers of ecotourism services must be creative, financially astute and able to adapt quickly to customer requirements and world events. They will need to have certain entrepreneurial characteristics that are not necessarily present in communities. NGOs may be tempted to step into the void to develop ecotourism ventures, but they should carefully consider the operational demands and risks.

Start-up ecotourism ventures have a high risk of failure. Even under the best conditions, where markets are close, and access and business support are good, the failure rate for small businesses is 80% in the first five years (Klein, 2002). New tourism businesses in developing countries face the additional challenges of selling to distant markets, having limited access to capital and business training and dealing with greater political uncertainty. NGOs must ensure that becoming involved in ecotourism does not place their other activities at risk.

Although ecotourism can be beneficial, it is only one tool to achieving an NGO's goals in conservation or development. It is possible to encourage ecotourism development without taking direct responsibility. There are forms of ecotourism enterprise, e.g., joint ventures, that allow a site to benefit from tourism spending without the NGO assuming the full risk of such a project. The next chapter will explore different ways of structuring ecotourism enterprises.

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Planeta.com is a clearinghouse for practical ecotourism. It provides more than 10,000 pages of practical features and in-depth scholarly reports and hosts a variety of online forums and conferences related to ecotourism.

# The Role of Conservation Managers in the Business of Ecotourism

## Introduction

As discussed in Chapter 1, protected area managers and conservation NGOs can be involved in ecotourism directly or as facilitators of private or community-based enterprises. Ecotourism enterprises have a variety of forms and organizational structures: most are owned by an individual or group of individuals, but they can also be owned by a community or an NGO. Communities often look to NGOs for advice about which business structure is best for their situation, while NGOs must decide on the appropriate role of their organization in ecotourism development. This chapter presents an overview of different enterprise structures and the advantages and disadvantages of each.

## Selecting an Ecotourism Enterprise Structure

To determine which structure is best for a particular ecotourism business, it is helpful to evaluate the

options in the context of the conservation objectives, community beliefs and available financial and human resources. It may be that a site would benefit from having just one of these structures, while other sites have conditions conducive to two or more. If community members are the source of a strong pressure on conservation targets, or if they have ancestral lands in the area or longstanding resident status, it will be important to ensure they are fully involved in the planning process. However, this does not mean that they should be the only or even the principal actors in the ecotourism business.

## Community-Based Ecotourism (CBE) Enterprises

The success of communities in developing ecotourism depends on factors such as local governance structures, inter-community relationships, and partnerships with NGOs and tour operators.

### Box 2.1 Community-Based Ecotourism (CBE) Taquile Island in Lake Titicaca, Peru

On the island of Taquile in Lake Titicaca live 1,850 Quechua-speaking people who have been able to benefit from community-based ecotourism. Initially, people were reluctant to encourage tourism here, but several visionary leaders were able to persuade the community that tourism could be undertaken equitably in a manner that would not drastically change traditional ways. Tourism visitation has grown from a handful of guests in the 1970s to over 27,000 visitors in 1996. Over 15% of the tourists who visit Taquile stay overnight in a family guesthouse. The economic benefits gained from providing lodging and selling handicrafts have generated considerable support for tourism in the community. But the residents of Taquile still control the type, intensity and direction of tourism on their island.

Most people in the community over the age of seven earn money by producing handicrafts and selling them through two community-run stores or cooperatives. Prices are fixed to avoid harmful competition and a small percentage of sales goes toward the maintenance of the cooperative. Restaurants are owned and operated by groups of local families. Boats

used for transportation are cooperatively owned. Tourism now provides casual or part-time employment for most people in the community.

Some problems have occurred as tourism has grown. Tourists prefer to stay closer to the plaza, creating a greater demand for nearby guesthouses and creating an income gap between families. Synthetic materials and simpler handicraft patterns are gaining prominence due to faster production times, and in turn, greater profits. Overall, most people feel the impact of tourism has been positive as it has reduced their dependence on subsistence agriculture and the need to seek employment off the island. Local residents want to maintain their environment and traditional cultures while enjoying the economic benefits tourism has brought. In the future, this may require increased management costs as more and more people seek out their island. Still, the Taquileños' focus on sharing benefits and decisions throughout the community gives them a strong footing for the next phase of their tourism development.

sources: Brooks, 2002; Mitchell, 2000

CBE enterprises often take the form of a structured or loosely-aligned cooperative in which members of the community hold active roles in providing with accommodations, food, crafts, transportation or guide services. When the financial benefits of tourist spending are shared throughout the community, whether by rotating the use of local houses or guides, or by collecting a fee for the community, ecotourism is better received and eventually viewed as a valuable method for increasing the local quality of life. An example of a well-run CBE enterprise is described in Box 2.1.

CBE enterprises often have a slightly different focus than those run by private conservation groups. Whereas CBE enterprises strive to benefit local people by preserving the natural resources of their surroundings, conservation groups try to preserve the environment by benefiting the local people (Norris, Wilber and Marin, 1997). This difference may not seem significant since both models emphasize environmental conservation and economic benefits, but it is important to remember that economic necessity is usually the primary motive behind community member involvement. Although an NGO may be content with achieving only conservation goals, communities tend to measure and expect success in financial terms.

In each case, CBE enterprises can be structured in various ways, which should be explored in the planning process in order to identify the best fit for the community and prevalent conditions (Wesche and Drumm, 1999). A successful structure allows benefits to accrue directly to the community and the community controls how tourism occurs. In many cultures, the entire community participates in important decisions, which may seem like a slow process, but is important to allow for consensus around key issues. The community must also assume responsibility for the success of the enterprise. It is a big advantage if the community is cohesive and well organized.

CBE enterprises often have problems understanding and attaining the level of quality needed to satisfy international ecotourists. Without the involvement of private entrepreneurs, there may be a lack of financial resources to construct the necessary infrastructure, or a lack of capacity and skills to properly develop an ecotourism facility or attraction (Kersten, 1997). In addition, when tourists do not show up in the expected numbers, frustrations and jealousies can arise as people struggle for their share of a shrinking revenue base. There often needs to be more focus on the inter-relations and opinions of communities, which is less of a concern for private organizations (Norris, Wilber and Marin, 1997).

It is one thing to define the conditions of success for ecotourism, it is another to properly integrate an ecotourism business into a diverse local economy. As with any product involving foreign markets, ecotourism is vulnerable to fluctuations beyond the control of the community or even the country. For example, foreign wars and economic crises can cause tourism demand to crash. Therefore, it is always important to keep an eye on the larger economic context to ensure that ecotourism is part of a broad and diverse economic development strategy.

### ***Private Sector Concessions***

In some cases, a protected area may best be served by establishing a concession whereby a private tour operator or hotelier is given the exclusive rights to develop and manage a facility in exchange for an annual payment. The participation of private sector operators reduces the risk that a tourism venture will fail, given their knowledge of product quality standards, their experience in operations management and their established marketing network. The disadvantage of this structure is that more revenue is likely to leave the area since such tourism providers are often based in cities located far from the community or destination site. In addition, these distant owners may capture much of the profit themselves and create economic leakages by importing food, supplies, staff, and building materials from outside the community. NGOs can play a critical role in negotiating concessions to minimize these negative effects.

Ecotourism operators can perform different roles in the ecotourism planning process. Some tour companies are interested principally in profits, while others are truly interested in providing trips that are culturally and environmentally sensitive. Some are willing to donate money from trip proceeds to host communities for conservation activities, while others are willing to become active in preserving the ecotourism attractions. All of these operators can play a role in the planning process.

Unfortunately, both new and established tourism operators find it difficult to attract a consistent flow of tourists in a fluctuating economy. The cyclical nature of the economy and the changing tastes of world travelers can result in a “boom and bust” experience for many tourism providers. Established tour operators and those with more diverse product types and locations are most likely to survive in the long term.

### ***NGO/Private Sector Partnership***

Many NGOs play active roles in the management of protected areas, but most do not have the skills needed to



Community based ecotourism sometimes includes demonstrating traditional crafts such as here in the Amazon region of Ecuador.

run an ecotourism business or the desire to divert resources from conservation activities. If this is the case, the best way to encourage ecotourism may be to partner with a private sector entity. An established ecotourism operator may be able to develop ecotours or facilities, or incorporate new products into an established marketing program. Their connections with outbound tour operators can be invaluable in delivering sufficient numbers of visitors to benefit the local economy.

Likewise, an NGO/private sector partnership allows the NGO to focus on its primary mission. Instead of being distracted by the responsibilities of running a business, the NGO can work to further the conservation of the protected area and foster sustainable community development. The NGO can contribute to the tourism partnership by: providing training to local participants; establishing a program to monitor tourism impacts; facilitating negotiations between the park staff, business and local community; or identifying the most attractive native species and natural attractions in the region. Together, the NGO and private sector partners can work to establish a high quality, well-designed ecotourism experience.

### ***NGO Ecotourism Enterprises***

It is possible for an NGO to develop and operate its own ecotourism enterprise; however, this structure should be approached with great caution. An NGO in

this situation must have access to the capital and training required to provide ecotourism services, and it must also have the legal authority to operate a business, which is prohibited in some countries. One advantage may be that an NGO's objectives more closely match those of a host community than would a private business's. An NGO will also be more concerned that the environment is protected or enhanced by ecotourism.

Establishing an NGO Ecotourism Enterprise can be risky: financially, there may be setbacks; the NGO may lose sight of its conservation objectives; the community may become dependent upon the NGO for its livelihood. NGOs may set prices that are too low, thereby threatening the long-term survival of other ecotourism entrepreneurs in the region and generating hostility from the very tour operators the NGO should be trying to attract. The only case for subsidizing the business is if no tourism market exists and no operators are interested in entering the market.

### ***NGO/Community/Private Sector Partnership***

In this structure, each partner can contribute their greatest strengths, e.g., NGOs in conservation capacity, communities in ownership and local knowledge, and tourism businesses in tour management experience and market linkages. Using this structure makes it easier to avoid some of the disadvantages of other enterprise structures.

Local entrepreneurs need time and training to get their ecotourism projects underway. Without assistance, their ecotourism ventures may be developed too slowly and lose out to competition. Local entrepreneurs may also lack the business expertise or the marketing skills needed to develop a successful product. A partnership between communities and the private sector can alleviate some of these shortcomings. The resulting business could benefit from greater community support and more genuine interactions between tourists and locals. This increased product authenticity often results in improved customer satisfaction and word-of-mouth marketing. NGOs can contribute their resources to develop skills, provide marketing contacts and offer financial support. This will allow them to achieve their conservation goals without assuming the full set of risks associated with operating a business.

This multi-faceted partnership between communities, NGOs and the private sector not only provides a wide range of resources that can facilitate the ecotourism business planning process, but generates complexities associated with the management of a large and diverse group of people, many of whom will have different levels of experience and different expectations. NGOs are the logical choice to lead such a process and can provide training and coaching for community members and local entrepreneurs. While more expensive at the outset, the additional costs of providing

training and engaging the community lead to a stronger foundation for success. Given that international assistance often provides funding for responsible economic development, it may be possible to seek grants or donations to help offset these higher costs (see Chapter 6 for financing information).

### Assessing Potential Partners

As mentioned, a desirable form of ecotourism enterprise involves partnerships between communities, NGOs and private businesses. Ecotourism operators can provide a connection to the marketplace and assist with language and communication difficulties. But how does one assess the worthiness of potential partners? More than profit margins or the size of an operation need to be considered when selecting a partner. Most NGOs have gained credibility within the conservation community based on their work of advancing conservation objectives, which should not be compromised by aligning with a business partner that does not share similar values.

The Nature Conservancy developed Green Tour Operator Guidelines in response to concerns from travelers about having negative impacts on the environment or local cultures. The guidelines, shown in Box 2.2, provide criteria that must be met by tour operators working on trips for the Conservancy and can be adapted. NGOs assisting in the development of ecotourism

#### Box 2.2 Green Guidelines for Tour Operators

*1. Supports Local Community Development:*

The tour operator partners with local communities to provide services to clients and create benefits that address local communities' needs. At destinations within host countries, the operator employs mostly local people living in or near the areas being visited and purchases most of its supplies from local businesses.

*2. Ensures Waste is Managed Appropriately:*

Waste and sewage are disposed of properly using "best practices" available/feasible for each area (recycling, composting, etc.).

*3. Promotes Responsible Visitor Behavior:*

The tour operator educates travelers before and during the trip on low-impact travel and conservation-compatible practices (including ecological and cultural-sensitivity practices).

*4. Uses Renewable Energy and Promotes Fuel Efficiency:*

The tour operator is aware of and implements practices to reduce natural resource consumption (water, fuel, etc.) in

areas of lodging, transportation, etc., through use of renewable energy and/or fuel-efficient motors.

*5. Trains and Employs Local Guides:*

The tour operator's properly trained local guides are able to educate travelers about natural history, local culture and traditions, protected areas, birding, flora, fauna, conservation issues, cultural sensitivity issues, etc., and they are able to communicate this information effectively. Operator offers access to, and covers costs for, ongoing training courses and certificate programs for local guides.

*6. Monitors Impacts:*

In order to avoid the overuse of sensitive sites, the tour operator is aware of and in compliance with the carrying capacity of visited areas. The operator keeps the number and behavior of tours/travelers compatible with the fragility of visited environments and works with protected area managers, the Conservancy's partners and/or other local NGOs to implement impact monitoring plans when possible.

adapted from The Nature Conservancy, 2002

projects should consider developing their own guidelines that support their own mission and objectives. When partnerships are being sought with established tour operators, the business practices of the tour operator should be evaluated against the guidelines to determine if they are an appropriate partner.

Few operators, if any, will achieve a perfect score on their business practices. Their location may make recycling impossible, or they may be in a start-up cycle and have limited baseline data for their monitoring program. These lapses should not result in dismissal without further consideration. Discussions should take place to determine future plans and/or to educate ecotourism providers on ways to increase the environmental sustainability of their business operations. If potential partners are unable to commit to the principles underlying these guidelines, other alliances should be sought.

Other possible tools for assessing partners can be found in the Resources section at the end of the chapter.

### Defining Partnership Expectations

As can be seen, determining the structure of an ecotourism enterprise and the roles of the partners is a

complex undertaking and requires several strategic decisions. When exploring which form of partnership is most appropriate, participating organizations should consider the questions discussed in Table 2.1.

Once the desired ecotourism structure has been selected, the next step is to begin the business planning process. Formal partnerships can now be created and work can be undertaken to define responsibilities and the sharing of benefits. Further guidance for creating these partnerships is provided in Chapter 3.

### Understanding the Challenges of the Ecotourism Business

In order for an NGO to work with communities and the private sector in the ecotourism industry, it is important the NGO understand the challenges of acting as a tour operator or ecolodge manager. Challenges often arise in the areas of marketing, calculating profit margins, risk management and competition.

*Marketing Costs* - Volume I, Part I, Chapter 6 outlines the links in the tourism value chain. It is important for NGOs to be aware of these various intermediaries in the

**Table 2.1 Questions to Consider When Defining Partnership Expectations**

<i>What strengths does each partner offer the ecotourism venture?</i>	An NGO can contribute scientific knowledge and a commitment to conservation; a community might have generations of knowledge about the local area and a cultural connection to the land; a tourism business will have expertise in operating tours or lodges.
<i>How much risk is each organization willing to take?</i>	A private business will often be willing to undertake risk to earn higher profits. NGOs are more risk-adverse since they depend upon donations and government grants for funding and must maintain a higher level of integrity in their business dealings. NGOs also serve as stewards of natural resources. Mistakes made during the management of these resources may be irreversible or require decades to restore.
<i>Is an active role in providing ecotourism services needed to achieve conservation goals?</i>	Ecotourism is a potential tool for achieving conservation goals. It may be possible to use this tool without committing to the risks of managing a business. If a business is granted a concession to operate an ecotourism activity or facility in a protected area, local NGOs or community members can negotiate a fee or royalty to provide a source of passive income with reduced risk.
<i>Are there other organizations that might participate in the ecotourism venture?</i>	Identifying organizations that are willing and able to contribute to a partnership should start with a review of the local tour operators. These operators will already have an understanding of the local attractions and visitation patterns and established relationships with airlines and out-bound operators. Other possible partners may include community-run businesses or cooperatives such as those described at Lake Titicaca in Box 2.1.
<i>What values must all partners have in common?</i>	As described earlier in the section on assessing partners, the values of potential allies should be compared to the values of the NGO and community.
<i>What results are expected from the partnership?</i>	For an NGO, the results of ecotourism will be measured by achieving conservation goals, e.g., maintaining population levels of sensitive species. A community will often measure success in economic terms, such as the number of new jobs created. Private businesses will seek results that contribute toward increased profits, such as greater customer satisfaction from an improved ecotourism experience. Partners do not have the same goals, but the activities of each should reinforce the goals of the others.

distribution channel and the functions they perform. No one should open a business without an understanding of the market the business serves. NGOs should work with local service providers or “ground operators” during the ecotourism planning process.

A frequent problem is the tendency to underestimate the importance of marketing in creating a successful ecotourism venture. When setting prices, communities and NGOs often neglect to include marketing costs by overlooking the need to pay travel agents and both outbound and inbound tour operators a commission for bringing their product to market. As a general rule, it is usually necessary to plan on a 10-15% commission on retail prices for travel agents and another 20-30% each for inbound tour operators and outbound tour operators. This can translate to a markup on land costs, the cost of the tourism services in the destination country, of almost 100% (Ecoplan:net, 1994). See Table 2.2 for a sample pricing calculation.

These markups may seem unreasonable until one considers the amount of time and effort that must continuously be made to market an ecotourism service. Even when relying on word of mouth referrals, efforts must be made to stay in touch with regular customers. Attracting new customers is more difficult, requiring direct mailings, web site advertising, directory listings and attending trade shows. It is critical that sufficient time is spent on developing a viable marketing plan during the business planning process or else the business may fail due to a lack of customers. It is possible that private businesses are best suited to undertake the marketing role that accompanies an ecotourism product since by their nature they must

be proficient at marketing in order to survive. An established tourism business will have refined its marketing techniques in a cost-effective manner and have developed a solid customer base.

**Profit Margins** – Private companies operating an ecotourism venture hope to make a profit. NGOs do not have a profit mandate but must at a minimum cover their costs. When considering their role in an ecotourism enterprise, NGOs should honestly assess what their best role in the ecotourism business should be. Given the challenges of operating a successful business and the differences in the skills needed between managing a business and a conservation project, it is very unlikely an NGO should manage the business itself.

A more appropriate role for an NGO in ecotourism that would draw on its strengths and its relationship with the community would be to facilitate community enterprises rather than to manage them. This view is supported by the fact that ecotourism businesses are difficult to start and operate successfully. Ecotourism ventures often take many years to reach a break-even point. Even when established, they might operate on slim profit margins. In a recent survey, The International Ecotourism Society found that almost 30% of ecolodges in developing countries were operating at a loss. On a brighter note, almost 50% were generating profits at favorable rates of 11% or more (Sanders and Halpenny, 2001).

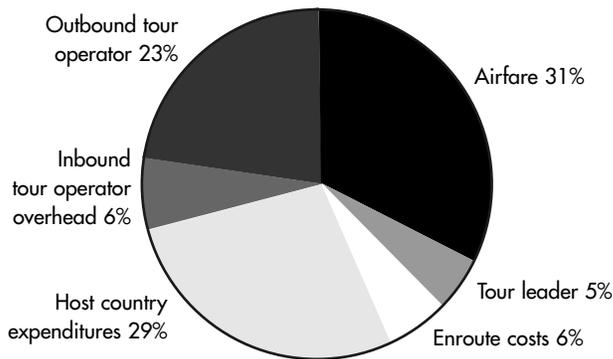
Figure 2.1 provides an example of the cost structures encountered by an ecotourism provider. Costs should be discussed with inbound tour operators to project the

**Table 2.2 Sample Pricing of Ecotourism Packages**

<b>Service</b>	<b>Price Per Passenger</b>
Accommodation	\$300
Guide Services	\$100
Meals	\$180
Park entry fee/payment to the park service	\$20
<b>Total Land Costs</b> (The cost of the tourism services at the destination)	\$600
Mark-up by the inbound tour operator (about 30%)	\$180
Mark-up by the outbound tour operator (about 30%)	\$235
<b>Retail Price</b> (The price paid by the customer)	\$1,015

adapted from Ecoplan:net, 1994

**Figure 2.1 Cost Structures of an Ecotourism Provider**



adapted from USAID, 1992

anticipated cost structure and profits for the conservation area. Only those projects that can show a reasonable expectation of profit should be encouraged because, ultimately, all ecotourism businesses must earn a profit. An enterprise structure should be selected for its ability to deliver forecasted profits while also delivering social and environmental benefits.

#### **Risk Management and Legal Considerations -**

Offering ecotourism services requires the provider to undertake business and operational risks. Preparing a safety management plan prior to starting the business can help to minimize many operational risks. Other risks fall outside of traditional business planning. For example, if an NGO takes an active role in the development of ecotourism, this may divert its financial and human resources away from activities needed to meet its primary mandate. NGOs will often find that the insurance they carry for losses (such as property or public liability claims) is inadequate for ecotourism activities. Ideally these insurance costs will be covered by the outbound operator, especially in the United States where lawsuits are more common.

**Competitive Environment** - As described in detail in Volume I, Part I, Chapter 3, ecotourism can generate significant economic benefits for a community. However, these benefits will only occur through careful business planning and sound ongoing management practices. The tourism industry is very competitive, with new ecotourism and nature tourism services entering the marketplace at a rapid pace. Ecotourism enterprises also have greater operational challenges. For example, small group sizes and the need to minimize environmental impacts often require charging higher

prices in a market that is very price sensitive. Planners must decide which enterprise structure will provide the most strategic advantage when positioning ecotourism services and their delivery. Care should be taken to ensure that a NGO does not use its tax-free structure to compete unfavorably with other ecotourism operators. An NGO that is able to avoid the costs of permits or taxes may have lower operating expenses than a private company and be able to charge a lower price. Although this may generate additional business for the NGO, it can represent lost revenues for the NGO and harm the private sector while damaging relationships in the process.

After considering these issues, it might appear that there are many areas where NGOs or communities do not have sufficient expertise on their own to develop successful ecotourism services. This can be remedied by receiving training or by retaining experienced tourism professionals in key positions. It may be advantageous to consider an ecotourism structure that includes a private sector partner, such as an NGO/Private Sector Partnership or an NGO/Community/Private Sector partnership. If a community or NGO cannot find a private sector partner that shares its vision for ecotourism development, it may be advised to select a community-based or NGO ecotourism enterprise structure and to hire people with the skills they lack.

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# Creating a Business Partnership with Tour Operators

## Introduction

Many ecotourism operators are strongly motivated to preserve local cultures and natural landscapes. An alliance with ecotourism operators may represent the best opportunity for meeting conservation goals. This chapter provides guidance for building these alliances.

## The Tour Operator Perspective

Tour operators that provide ecotourism services are often concerned about the conservation of indigenous cultures and natural areas. They recognize that without these unique factors they will be unable to offer the types of experiences their customers are seeking, yet they also need to generate enough revenue to cover their costs and even make some money. Their need to achieve a profit means that they approach ecotourism development differently than do protected area managers or NGOs. Whereas a business cannot survive without realizing a profit in the short to mid term, protected area managers and NGOs often wait decades or generations to see significant results from their activities.

These differing views can be used to build a stronger ecotourism project. The tour operator can “reality test” the business assumptions behind the proposed ecotourism services and provide specific direction on meeting customer expectations regarding quality, activities and amenities. By necessity, tour operators are well versed in marketing concepts and are able to advise which ecotourism services are likely to attract a sufficient number of ecotourists for the venture to be a successful.

Creating awareness among travelers about a particular ecotourism destination is likely to take a few years. Even if a basic awareness already exists, a minimum of two to three years will probably be needed before a sufficient level of awareness is reached. A protected area manager or NGO that wants to establish a partnership with ecotourism operators should recognize that a significant investment of time and money is required to market the product, independent of the planning, construction and training for producing the product. A tour operator will be looking for sufficient market potential to recover its costs and for assurances that the business relationship will last long enough to see the marketing process to conclusion.

## Marketing Advantages of Responsible Tourism

The traveling public is becoming more sophisticated in its travel preferences and more aware of the impact of its activities on the environment. Tourists are starting to seek out travel providers that are environmentally responsible in the operations of their tours and lodges. Many tour operators are responding to this market trend

and attempting to demonstrate their commitment to a greener form of tourism. Not all of these efforts qualify as ecotourism, but there is an increasing consciousness among ecotourism operators that their environmentally-friendly practices can provide a marketing advantage with some consumers (see Box 3.1).

NGOs involved in partnering with tour operators should share this information with potential partners.

## Community Expectations

The host community brings its own expectations to a business

### Box 3.1 Marketing Advantages of Responsible Tourism

Responsible tourism practices can:

- help reach a bigger market by tapping into additional travel motivators, e.g., the desire for more authentic experiences;
- assist in keeping existing customers by demonstrating best tourism practices;
- increase the appeal of a travel itinerary through “special experiences” such as access to researchers, behind-the-scenes tours, or encounters with local groups;
- reduce marketing costs, e.g., through the use of “affinity” programs or marketing alliances.

source: Patterson, 2002

partnership. In many cases, it expects tourism to generate employment and bring additional revenues in the form of spending, fees or taxes. It may have concerns about the type of ecotourism services envisioned and what level of visitation will occur. Community members will expect to participate in the planning and development process.

In developing nations, a very close relationship exists between the land and community and forms the basis of ecotourism development. The community may wish to develop the ecotourism project independently but be unable to secure financing, or it may recognize its lack of skill in developing an ecotourism service. A partnership with an outside organization may be the best way to combine resources to meet public goals. NGOs can play a valuable role at this stage in ecotourism management planning by bringing potential partners together and facilitating discussions about possible ecotourism services. Identifying tour operators active in the host country and assessing their compatibility with ecotourism principles (as discussed in Chapter 2) is a valuable contribution. Partnerships can be a very powerful tool in achieving conservation goals, but if the wrong partners are selected, there can be disappointing results.

### Selecting a Partnership Structure

Any organization developing an ecotourism site will find itself working with partners. Some partnerships are very informal. For example, NGOs may agree to share information, or multiple ecotourism providers may pool their money for a specific marketing campaign. Other partnerships are based on formal legal agreements that outline responsibilities and methods for resolving disputes. These commitments are often longer term and should not be established without careful consideration.

Several possible structures for ecotourism ventures are shown in Table 3.1. Each of these structures has advantages and disadvantages. Sole proprietorships and general partnerships are relatively easy to establish but do not offer protection to investors against liabilities such as debts or lawsuits. This means that if the business is unable to repay a loan, or if it loses a lawsuit that it cannot afford to pay, the owners of the business are legally required to pay the liability. In this business structure, liabilities are said to be “unlimited” because there is no upper limit to the amount the owners may lose. On the other hand, in business structures that offer “limited liability,” including corporations and limited liability partnerships, owners can lose only up to the amount they invested in the business. As a result, limited liability business structures are more common, especially for large organizations, given that most larger businesses need to take on debt and are exposed to potential lawsuits.

A joint venture (JV) is built with contributions from each party (referred to as JV owners). The liabilities of each owner are limited to their share of the JV. Owners can assume the liability of other owners if desired. This allows JV owners with greater resources to provide credit assurance for those JV owners that would otherwise not qualify for a loan. This ability to share liability can make it easier for a JV to obtain credit. Capital is also accumulated through the pooled contributions of JV resources.

Corporations raise capital by selling shares, or stock, to potential investors. The buyers of the shares become the business owners and each own a percentage of the business according to the number of shares they purchase. Depending on the size of the business and the amount of funding that is needed, shares may be sold directly to a small handful of investors or sold to thou-



In Labuan Bajo, near Komodo National Park, Indonesia, several local dive operations have emerged to provide services to park visitors interested in the enormously diverse marine life.

**Table 3.1 Possible Ecotourism Business Structures**

Type of Company	Pros	Cons	Source of Capital
<b>Sole Proprietorship</b> Not a separate entity, the proprietor holds all assets and debts	<i>Easy to establish</i> <i>Little government regulation</i> <i>Owner maintains complete control</i>	<i>Owner faces unlimited personal liability for all business debts and law suits</i>	Contributed by the individual proprietor
<b>General Partnership</b> A business entity created by two or more co-owners	<i>Strength through cooperation</i> <i>Less government regulation</i>	<i>Partners may be personally liable for business debts and liabilities</i>	Contributed by partners
<b>Limited Liability Partnership</b> A business entity created by two or more co-owners with protection	<i>Strength through cooperation</i> <i>Provides protection to partners against debt and law suit liability</i>	<i>More difficult to establish and maintain</i> <i>Subject to greater government regulation</i>	Contributed by partners
<b>Joint Venture (JV)</b> An agreement between two or more organizations to participate in a business project	<i>Draws on strengths of multiple stakeholders</i> <i>Larger participants can provide credit assurance</i>	<i>Diversified control could lead to unresponsive decision making</i>	Contributed by the participating organizations
<b>Corporations</b> A business entity with a separate tax and legal life from its shareholders	<i>Provides owners protection from debts and liabilities</i> <i>Sale of shares can attract large investments</i>	<i>More difficult to establish and maintain</i> <i>More government regulations and reporting rules</i>	Sale of shares (stock) to stockholders
<b>Cooperatives</b> A business entity democratically controlled by participating members	<i>Pools resources to greater empower members</i> <i>Members maintain democratic control</i>	<i>Unattractive to outside investors</i> <i>Diversified control could lead to unresponsive decision making</i>	Sale of shares to members

sands of investors through a public stock market. The shares of ecotourism corporations are unlikely to be sold through a stock market, however, because ecotourism projects do not need extensive capital and are likely to be perceived as high-risk to general investors.

Cooperatives are similar to corporations in that they have limited liability for owners and can sell shares, but their focus is on providing benefits to members. They will often distribute their earnings based upon a member's level of participation (e.g., the number of hours worked). In corporations, earnings are distributed based upon the number of shares a person owns.

As most ecotourism businesses in developing countries have a greater chance of success where communities, NGOs, protected area managers, and private tour operators work together, it is likely that some form of a joint venture will be the preferred business structure.

### Structuring a Joint Venture

Joint ventures are popular mechanisms for advancing tourism objectives. They allow several parties to come together in the pursuit of a common goal. Participants often create a joint venture through the contribution of property, real or intellectual. In the case of ecotourism

projects, this could be the contribution of land or access to land by communities or protected area managers. Tour operators will often be called upon for their client base or for committing money to tour packaging and promotion. Governments may be party to a joint venture as well, providing money, property or staff as well as direction on policy issues.

Starting an ecotourism joint venture early in the ecotourism planning process is important to the venture's overall success. It is also critical that all parties to the venture understand and share a common vision. As mentioned before, NGOs and protected area managers will have a different perspective on ecotourism than a private tour operator; however, everyone should agree upon:

- ❖ the form of ecotourism that will take place,
- ❖ the role that ecotourism will play in conservation initiatives, and
- ❖ the benefits for the host community.

Each party should be clear on what it wants from the relationship and should understand the goals of each partner.

Joint ventures tend to be cooperative in nature, so some aspects of the relationship will be negotiated as the business evolves. To avoid strained relationships, it is important to agree upon key elements of the business up front (i.e., the distribution of revenues) and to record these agreements in writing. The responsibilities of each partner should also be described and documented. While other business structures have built-in procedures for resolving conflicts, this is not the case in a joint venture. Methods for resolving disputes should be defined early, along with ways to end the arrangement if it does not meet expectations.

If an NGO or government agency has provided land through an outright contribution or long-term lease for the construction of an ecotourism facility by a private company, how will they divide the assets if the joint venture is unsuccessful? It is difficult to remove a building; it is more likely that the private business would look to their partners for financial compensation for their lost investment. NGOs should consider how this outcome could best be handled. It is easier to discuss these issues and plan for exit strategies when everyone is in a congenial mood and enthusiasm is high. As projects unfold and world events occur, it can be considerably more difficult to come to an understanding about the division of assets.

### Memorandum of Understanding

A Memorandum of Understanding (MOU) is often the first step towards formalizing a joint venture or partnership arrangement. It is a legal document that outlines which entities will be party to the agreement, their indi-

#### Box 3.2 Common Elements of a Memorandum of Understanding (MOU)

- ❖ Parties to the MOU
- ❖ Duration of the agreement
- ❖ Goals or intent
- ❖ Property (intellectual or real) to be contributed by each party
- ❖ Cost allocations and revenue sharing methods
- ❖ Liabilities and responsibilities of each party
- ❖ Information sharing
- ❖ Dispute resolution
- ❖ Assurances
- ❖ Modifications or termination (should include an indication of whether the agreement is binding or non binding)
- ❖ Signatures

vidual responsibilities and the intent of the partnership. It is usually a brief document and forms the initial agreement for undertaking a joint venture of some type. The MOU may be binding and enforce a commitment between the signatories, or it may be non-binding, allowing entities to remove themselves from the process if they wish. In the case of a non-binding MOU, there is often an expiration date that will render the agreement null and void if the promised actions or contributions have not occurred.

Elements of a MOU are shown in Box 3.2. A MOU provides the opportunity early on in the planning process to define the obligations of the parties associated with the ecotourism business. The timing of when a MOU will be drafted during the planning process varies. If an ecotourism operator has expressed interest in the development of a site early in the Conservation Area Planning (CAP) process, it may be desirable to create a MOU after the Full-Site Diagnosis (FSD) is completed. The MOU may also be agreed to later in the planning process. For example, in order to be convinced of an area's potential, perhaps a tour operator will require that a feasibility study is undertaken before it is willing to commit.

On the following two pages is an example of a Memorandum of Understanding between a fictional NGO and a fictional ecotourism provider that may prove useful as a model.

### References

Patterson, C. 2002. *The business of ecotourism*. Rhineland, Wisconsin: Explorer's Guide Publishing.

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Grant Thornton, LLP. 2002. *Taking steps to assure the success of your next merger or acquisition*. [www.grantthorton.com/content/12337.asp](http://www.grantthorton.com/content/12337.asp).

Haryana Tourism: Joint Venture with the Private Sector. [www.nic.in/htc/jove.htm](http://www.nic.in/htc/jove.htm)  
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Higgins, B.R. 1996. The global structure of the nature travel industry: Ecotourists, tour operators, and local businesses. *Journal of Travel Research*. Fall 25 (2): 11-18.

South Australian Tourism Commission. [www.atisc.gov.au/programs/noticeboard/Industry\\_Strategies/tis/partone.asp](http://www.atisc.gov.au/programs/noticeboard/Industry_Strategies/tis/partone.asp)  
Describes industry strategies for aboriginal tourism development. The South Australian Tourism Commission has produced guidelines for joint ventures to assist potential participants in assessing the benefits and potential dangers.

## **Memorandum Of Understanding**

### **For Co-Management Of The Laroc Rainforest Ecolodge**

**Between  
The Friends Of Wildlife NGO  
And  
Worldwide Ecotour Company**

#### **PREAMBLE**

This agreement is made the 1st day of April, 2001, WorldWide Ecotour Company (hereinafter called WEC) and the Friends of Wildlife NGO (hereinafter called FOW), a non-profit non-governmental organization duly formed and existing under the Laws of AnyCountry with registered office at Anytown.

WHEREAS the FOW is responsible for the administration of the Laroc Rainforest EcoLodge, and is therefore joined as a party hereto;

AND WHEREAS the FOW is desirous of entering into an Agreement with WEC in order that the parties hereto may continue the work of cooperating in development and management of the management of the Laroc Rainforest EcoLodge;

NOW THEREFORE IT IS HEREBY AGREED as follows:

#### **GENERAL AGREEMENT**

1. FOW and WEC shall jointly manage and develop the Laroc Rainforest EcoLodge.
2. Such joint management shall be exercised by the parties hereto in keeping with the provisions of the Wildlife Act for a period of five (5) years and shall be renewable for a similar period except as provided hereunder.

#### **CONFLICT RESOLUTION**

3. In the event of an infringement of any of the terms of this Agreement, the party making a complaint shall give notice thereof and the parties shall then use their best efforts to resolve the matter within six (6) months of the date of the infringement.
4. If no satisfactory resolution is reached, the complaint may be taken to an agreed upon arbitrator.
5. If no satisfactory resolution is reached, the complaining party may, by further notice of at least thirty (30) days after the expiration of the period referred to above, terminate this agreement. In the event of dissolution of this Agreement, Co-Manager shall not incur any liabilities.
6. Co-Manager may wherever it deems necessary and after consultation with the Friends of Wildlife NGO, terminate this Agreement, provided that notice of a minimum of six (6) months is given.
7. This Agreement shall be amended where such proposed amendment is reduced to writing and signed by both parties.

**Memorandum Of Understanding: (continued) SPECIFIC TERMS OF COOPERATION – ROLES AND RESPONSIBILITIES**

Cooperation themes	Responsibilities of FOW	Responsibilities of WEC
<p><b>Management plan development</b></p> <p>An interim management plan has been developed but still requires updating and final approval. The plans shall specify the assessment methods for monitoring accomplishments and provide the necessary periodic evaluations and refinements. Such plans shall include provisions for methods of protection, enforcement, visitor usage, staffing, structures, monitoring, research and any other provisions as are appropriate to the ecolodge site.</p>	<ul style="list-style-type: none"> <li>- Gather community input for the management plan</li> <li>- Draft and complete the final management plan</li> </ul>	<ul style="list-style-type: none"> <li>- Participate in the development of the management plan</li> <li>- Ensure that the final management plan is approved, signed, and gazetted</li> </ul>
<p><b>Day to Day Management</b></p> <p>FOW shall retain the regulatory authority for the Laroc Rainforest ecolodge. Through specific agreements, FOW shall “delegate some authority to WEC for management.”</p>	<ul style="list-style-type: none"> <li>- Develop and implement a public awareness campaign for the Laroc site</li> </ul>	<ul style="list-style-type: none"> <li>- Manage the day-to-day operations of the Laroc Rainforest ecolodge, under agreement with the FOW</li> <li>- Day-to-day management responsibilities include at least the following:               <ol style="list-style-type: none"> <li>1. Hire and oversee all staff</li> <li>2. Collection of all revenues</li> <li>3. Monitor use of the Laroc site and ensure compliance with reserve regulations</li> <li>4. Implement scientific and tourism monitoring within the Laroc reserve</li> </ol> </li> </ul>
<b>Revenues and Costs</b>	<ul style="list-style-type: none"> <li>- Pay for the administration costs associated with FOW’s Laroc Rainforest Ecolodge responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>- Pay 10% of revenues into Laroc Tourism Cooperative Fund</li> <li>- Pay 5% of revenues to FOW’s Laroc Conservation Trust Fund</li> </ul>
<p><b>Permits and Licenses</b></p> <p>Development Concessions</p> <p>Research Permits</p>	<ul style="list-style-type: none"> <li>- Develop guidelines and establish indicators and standards of acceptable change, tourism, and development</li> <li>- Review all applications for licenses and permits</li> <li>- Comment on conditions, approvals or reasons for refusals or clarification</li> </ul>	<ul style="list-style-type: none"> <li>- Participate in developing guidelines and carrying capacities for acceptable research, tourism, development, and research</li> </ul>
<b>Periodic Evaluations and Refinements</b>	<ul style="list-style-type: none"> <li>- Review annual reports of WEC</li> <li>- Conduct or outsource annual reviews of the development and management of the Laroc Rainforest Ecolodge and recommend improvements if needed</li> <li>- At the conclusion of each five-year period, FOW and WEC will pay for an independent review of the co-management arrangement and develop new co-management agreements, including recommendations for future reviews</li> </ul>	<ul style="list-style-type: none"> <li>- Produce and submit annual implementation reports on the status of the development and management of the Laroc Rainforest Ecolodge to accompany annual financial reports, and make these reports available to FOW, the government and the general public</li> <li>- At the conclusion of each five-year period, FOW and WEC will pay for an independent review of the co-management arrangement and develop new co-management agreements, including recommendations for future reviews</li> </ul>

AS WITNESS the hands of the parties agree hereto the day and year first mentioned above.

SIGNED \_\_\_\_\_ WorldWide Ecotour Company \_\_\_\_\_ Friends of Wildlife NGO

## Chapter 4

# Preparing a Feasibility Analysis

### Introduction

A feasibility analysis is a study used to determine whether or not a proposed business idea is worth pursuing. Though the structure of feasibility studies may vary, the analysis should thoroughly evaluate a proposed business and focus on marketing and financial viability.

This manual defines a feasibility analysis as a process similar to producing a business plan, even identical in some sections, but that is intended for a different audience and to serve a different function. While a feasibility analysis is primarily intended as a learning exercise for internal use, a business plan is written to be understood by people outside the business for the chief purpose of attracting investment. Once a feasibility analysis is complete, it is often incorporated into the business plan.

Completing a useful feasibility analysis does not require a degree in business administration or management. All that is needed is the discipline to proceed through the steps described in this chapter and the willingness to seek assistance when greater expertise on a topic is needed.

### Steps Involved in a Feasibility Analysis

The content of a feasibility study varies depending on the project or business being analyzed. Some studies require less work due to existing planning efforts; for example, there may be ecotourism facilities that have already been built at the site. Nonetheless, certain common elements are critical. The steps most often used to create a feasibility study are listed below and discussed in further detail later in this chapter.

1. *Preliminary Questions*
2. *Information Gathering*
3. *Definition of Goals*
4. *Resource Inventory*
5. *Market Analysis*

### 6. *Competitive Analysis*

### 7. *Business Description and Operation*

### 8. *Sales Forecast*

### 9. *Financial Analysis*

### 10. *Viability Assessment*

### Time Needed

The amount of time it takes to prepare a feasibility study varies from a few days to several months or more. The amount of time required depends in part on the quality and quantity of the marketing and financial data available for the proposed business. Even if the viability of a particular idea appears to be obvious, investing the time to conduct a study that incorporates market research is valuable. Completing the analysis will also reduce the amount of work it takes to develop the business plan.

On the other hand, if a community is considering implementing a wide variety of ideas and is simply trying to set priorities, it might be better to take a “quick and dirty” approach and simply rely on existing knowledge. The business concepts that successfully pass through this rapid “coarse filter” can later be further researched and subjected to more intensive study.

A feasibility analysis is best performed early in the business development process. At the outset, it is common, even preferable, to consider a wide variety of ideas. Ecotourism includes a broad range of services—from offering self-guided trails to overnight accommodations—each of which ought to be viewed as a self-sustaining business unit. Even if only one or two business ideas are implemented, it helps to start out by making a list of the different activities that could be offered. During the later analysis stage, the potential marketing challenges and financial constraints can be assessed. At the conclusion of the analysis, the most promising ideas will be identified.



Local community members provide kayak guiding services to tour operators and cruise ships in St. Thomas, U.S. Virgin Islands. © Jonathan Kerr

### **Who Should Do the Analysis?**

Ideally, the potential business owners and project participants themselves should answer the questions and identify the actions needed to complete the feasibility study. Participants might include NGOs, government agencies and ecotourism operators. The process of answering the questions needed for a feasibility study will produce a significant amount of information about the type of business being proposed and the associated costs. Although a consultant might be capable of delivering a more complete analysis, without the business owner's input, the business owner will miss out on much of the value of the study. Communities or NGOs might still consider hiring a specialist to facilitate the data gathering and analysis process if they have limited experience.

A feasibility study should end with the production of a written document, although the document itself is

not the objective of the study. In fact, it is possible for even illiterate groups to successfully use feasibility study methodology. The most important outcome of the process is identifying questions and understanding the importance of having answers to these questions before starting the project. Only by taking part in the feasibility analysis themselves will the participants fully understand the risks and intricacies of the business.

### **Ten Steps for Assessing Feasibility**

The following ten steps can be used to determine the feasibility of an ecotourism business. Since many of these steps are interrelated, they can also be thought of as components of a process rather than steps that must be followed in a rigid sequence. Nonetheless, it is helpful to organize the assessment process into segments in order to address the key considerations in making an informed decision.

#### **Box 4.1 Rules for Creating a Viable Business**

##### **RULE #1: BUSINESS IDEAS MUST BE MARKET DRIVEN**

Even if the proposed business is the first of its kind, it must respond to a clearly identifiable demand from potential customers.

##### **RULE #2: A BUSINESS MUST MAKE A PROFIT**

In order for any business to survive on its own, it has to cover its costs and provide a satisfactory profit to the owners.

##### **RULE #3: ALL COSTS MUST BE TAKEN INTO ACCOUNT**

For an ecotourism business, costs include monitoring the impact of visitors in addition to the cost of operation.

##### **RULE #4: JUDGEMENT IS REQUIRED WHERE INFORMATION IS LACKING**

Even with market research, concrete information will be scarce in many planning areas. Working with limited data and making general assumptions is often needed to move forward with the analysis.

### **1 - Preliminary Questions**

Before starting a feasibility analysis, a community or protected area manager might not know what ecotourism products to offer. Ecotourism may be recognized as an appropriate tool for conservation, but the particular services may not have been identified. During the Preliminary Site Evaluation outlined in Volume I, Part II, Chapter 2, it will have been determined that the site holds potential for ecotourism, and some people may have suggested that it is best suited for guided day trips. In a feasibility study, however, more specific product descriptions are required. To help define which services should be offered, it is helpful to answer the following questions:

**1. Who are the potential clients and how will they be reached?** Be as specific as possible in describing the characteristics of potential visitors. Factors to consider include their ages, nationalities, income levels, and (most importantly) motivation for visiting. Are they birdwatchers? Are they beach tourists seeking to escape from the interior for a day? Are they students looking for educational experiences? It will also be helpful to describe a typical vacation itinerary for the potential clients: how long are they traveling, what other places do they visit, how much money do they spend?

In addition to the profile of the potential visitor, the approach to and likelihood of attracting them should be described. If the desired visitors cannot be attracted in sufficient numbers to support a business, then other potential clients must be considered.

**2. Who are your potential competitors?** Based on the profile of potential clients, analyze what competition exists for attracting these clients. Go beyond a simple list of other tourism offerings. Think of how long potential clients will visit the site and make a list of the other activities they could pursue during their time. Include specific names of other communities or businesses that offer similar or competitive services, both in the form of traditional tourism and ecotourism attractions.

**3. What are your competitive advantages?** Every business must be able to offer something special in order to succeed. This specialty can be as simple as excellent customer service, a convenient location, or a unique attraction. Such special characteristics are known as competitive advantages. Identifying them is an important part of the feasibility analysis.

From the information gathered during this preliminary stage, participants will have a better idea of what they may be able to offer that is unique and will attract sufficient numbers of tourists to generate profits. It may be helpful to refer to the business feasibility guidelines presented in Box 4.1 when undertaking further investigations.

### **2 - Information Gathering**

After answering the preliminary questions above, the participants may discover how little they know about the details of forming the business. Consequently, it is often helpful to gather more information about the logistics of starting the business. The set of questions below is meant to serve as a guide for further investigation. Information can be gathered by referring to guidebooks and relevant web sites, by talking with individuals and organizations involved in the tourism industry and by interviewing tourists directly (see the Market Analysis section for more details).

#### **Industry Context**

- ❖ What is the “health” of the country’s tourism industry as a whole? Is it growing, consolidating, changing, or contracting?
- ❖ Is the number of similar businesses growing?

- ❖ How susceptible are ecotourism and the local tourism industry to changes in global and national economic and political conditions?

### Capacity of the Participants

- ❖ How much money does the community, entrepreneur, or NGO hope to earn from the ecotourism enterprise? Will the business replace other income-generating activities or simply complement existing ones? If replacing existing income sources is seen as the goal, is the income of the community expected to remain the same or increase?
- ❖ How much are participants willing to invest in the business in terms of time and money?
- ❖ Can participants risk personal savings or take personal responsibility for the repayment of loans?
- ❖ Are community or NGO participants willing to take on an active role in the management or operation of the ecotourism enterprise?
- ❖ Is it possible to obtain financing or attract enough investment to pay for the infrastructure and equipment needed to start the business?

### Target Market (Potential Clients)

- ❖ Is it easy to identify the target market? Are the visitors of one particular type and from one country, or are they diverse, from many different countries and with many reasons to visit?
- ❖ Is the target market large enough to produce the necessary returns on investment?

- ❖ Annually, is this target market growing, shrinking, or staying the same?
- ❖ How loyal are potential clients to existing businesses?

### Facing Competition

- ❖ How strong is the competition? What are their specific strengths, what do they do well and where might they be vulnerable?
- ❖ How difficult is it for competitors, including your business, to enter the market? Are there significant barriers to entry or could anyone begin a similar business? (For example, if there is a high degree of competition for guide services in a community, the need for money may cause people to lower prices and can quickly erode guide service income.)

#### Obtaining Supplies

- ❖ Where are suppliers for the ecotourism venture located (e.g., the suppliers of food, gasoline/petrol, building materials and business services)?
- ❖ How can communications with suppliers be conducted?
- ❖ How much do transportation costs increase the cost of supplies?

### Options for Promotion

- ❖ What type of options exist for promotion and how much might they cost?
- ❖ What will be the ongoing cost of promoting the product?

**Table 4.1 Ecotourism Resource Inventory Worksheet**

Resource:	Description: Existing? Available?	Attractiveness to Ecotourists: L = Local R = Regional N = National I = International	Potential for Ecotourism Development: L = Low M = Medium H = High
Natural or scenic attractions			
Archeological attractions			
Cultural or social attractions			
Accommodation options			
Food services			
Interpretive services			
Transportation options			
Human resources			
Infrastructure (communication, medical, utility systems)			

adapted from Kalahari Management Inc., 2001<sup>9</sup>

**Box 4.2 Market Information to Collect about Potential Ecotourism Customers**

- ❖ Demographics, e.g., age, gender, income, education, occupation, family composition, lifecycle stage, geographic origin
- ❖ Travelling party composition
- ❖ Preferred activities
- ❖ Reasons for selecting a destination
- ❖ Accommodation preferences
- ❖ Memberships in wildlife or conservation organizations
- ❖ Travel frequency
- ❖ Future travel intentions
- ❖ Travel spending

### Administration

- ❖ What management issues might be encountered when offering the type of ecotourism service proposed?
- ❖ Who will work in the business? What skills and knowledge will they need to be successful as employees? How will they be selected and trained?
- ❖ What special skills or knowledge is necessary to manage the ecotourism business?
- ❖ How and by whom will decisions be made? This consideration is especially critical in community-based enterprises.

### Organizational Fit

- ❖ How will the proposed ecotourism product affect the community?
- ❖ What are the potential benefits to the community and the possible negative impacts?
- ❖ How will profits be distributed among participants?
- ❖ If a partner NGO will be involved, will the proposed partnership serve the mission and use the skills of the NGO?

### 3 - Definition of Goals

The communities, NGOs and private businesses should come to an agreement on the goals of ecotourism and document the expectations of stakeholders. These goals

will also have been identified in the Conservation Area Plan and Ecotourism Management Plan (see Volume I). A key part of the planning process is to make sure the expectations of the community are realistic. The community must be prepared to accept that a feasibility study might show that an ecotourism business is not feasible. Perhaps the study will find that the environment is too sensitive to support the desired activity or the number of tourists that would be required to achieve financial viability. Perhaps the site may not have sufficient appeal on its own to become a significant tourist destination.

Unfortunately, because they are enthusiastic about the concept of ecotourism, some study teams provide overly optimistic sales forecasts and do not assess the challenges of their markets sufficiently. As a result, the project moves forward with a “build it and they will come” approach (see Chapter 1). In such cases, there is a risk that the project will not succeed, which can be far more damaging to a community than if the business was canceled at the outset. Establishing realistic and honest goals early in the process is important for a meaningful assessment.

### 4 - Resource Inventory

During the Preliminary Site Evaluation and the Full Site Diagnostic steps (see Volume I), the protected area will have been studied for its biotic diversity, including an inventory of animal and plant species and habitats, unique characteristics and the ability of the environment to withstand disturbances. For the purposes of the feasibility study, a more detailed inventory of tourism resources is required. This includes a list of accommodation choices, transportation options, guide services and related infrastructure that may be possible at the site.

A worksheet that may be helpful is shown in Table 4.1. The worksheet provides a format for inventorying each feature and identifying any “gaps” that are missed initially. Participants should try to assess the potential attractiveness of each feature for ecotourists. Some features may be attractive to regional or national tourists, but resources that attract international tourists should also be considered. These are often natural, cultural or social resources that can compensate for a more rustic level of accommodations and tourist amenities.

Some natural features may hold great appeal but require too much time or effort for potential ecotourists to reach. Other attractions may have less appeal, but because of their proximity to local villages and basic

infrastructure, they may in fact hold greater potential for development. The process of building the resource inventory can be greatly improved by incorporating feedback from experienced tour operators who have a greater understanding of customer expectations and competing products.

## 5 - Market Analysis

When preparing a feasibility analysis, knowing the exact market demand and sales volume is not necessary, but it is important to understand who the potential customers are, their reasons for purchasing the products and who is competing for similar clients. The more information that can be gathered about potential clients, the better the decisions that will be made for developing ecotourism products and for the business. Some of the market characteristics that can be considered are shown in Box 4.2.

Marketing information about the tourists who might visit the site can be gathered in a variety of ways (see Box 4.3). A simple but very informative market analysis can be conducted by interviewing tourists around your project site. Most tourists are eager to share their impressions, basic demographics and interests. Ideally, interviews could be done over the course of a year to get an understanding of seasonal variations, but even one day of conducting brief interviews can provide a good idea of the existing tourist demographics.

Other good sources of information are inbound tour operators that are active in the nature and adventure tourism industry. These operators have a clear understanding of what ecotourists are seeking when they visit the country and how they make their travel decisions. Some communities may not have the funding or time to conduct primary market research. If this is the case, information can be gained from secondary research sources such as those listed in the Resources section at the end of the chapter. This basic market analysis should provide a rough idea of the product's anticipated sales volume for use in the financial analysis when assessing the ecotourism project's viability.

## 6 - Competitive Analysis

At this point in the analysis, there will be a clearer idea of what type of ecotourism services can be provided and what the target market is likely to be. While it may seem obvious where there is potential for future development, it is necessary to find out who else is offering similar products. It may be that the initial concept for ecotourism is already being developed or promoted by many different communities and tour

operators and that it will be difficult to distinguish your site from others.

A quick review of the other sites in the country or geographic region will be helpful for identifying competitors. If at all possible, community members and NGO staff should take the time to visit competing sites to learn first hand about the quality of other offerings. It is also important to think about what ecotourism products elsewhere in the world might be similar in habitat or experience.

### Box 4.3 Sources of Marketing Information about Potential Customers

- ❖ Conduct an on-site survey of visiting tourists
- ❖ Interview local tour operators
- ❖ Information from the regional or national tourism board
- ❖ Statistics from international tourism organizations (see "Sources of Tourism Statistics" under the Resources section at the end of this chapter)

Knowing who the competition is, and what their strengths and weaknesses are, will allow the feasibility study participants to determine how they can design and market a product that will be unique. Competitive advantages fall under the following categories:

- 1) A new or different product or service.
- 2) A new market or under-served market for an existing product.
- 3) An integration of the product with other services. Integration refers to simplifying or removing a step in the value-added chain. For instance, there may be a competitive advantage in offering transportation services or meals in addition to hotel accommodations in order to capture more of each tourist's "value" to the business.
- 4) A new or improved way of reaching potential clients. For example, a community may have ties with a university or museum abroad that could promote the products to its constituents.

NGOs can be of great assistance during this process by providing information on other projects or the proj-

### Box 4.4 Budgeting Basics

The most obvious costs that come to mind in preparing a budget are those that are incurred directly as each unit is sold—the raw materials or ingredients. Financial planners refer to ingredient costs as variable costs since they vary based on the number of units sold. For example, the costs involved in preparing a plate of food at a typical tourist restaurant might include:

Food	Costs Per Plate:
Steak	\$2.00
Rice	0.75
Beans	0.50
Cheese	0.25
Condiments	0.15
Subtotal	\$3.65

If this plate is sold for \$10.00, can the owner consider the \$6.35 as profit? Obviously there are other costs that need to be included to determine the total cost of the meal, e.g., labor, cooking appliances, serving tableware, infrastructure (tables, chairs, rent) and utilities. Financial planners often refer to these as fixed costs because they do not vary directly with sales levels.

Fixed costs can also be considered part of the cost of serving an individual plate of food. It seems logical when running an ecotourism enterprise that additional plates of food must be sold each month to pay for the labor, rent and other fixed costs. If sales exceed all costs, the surplus is considered a profit. From this profit, a good business owner will put aside a portion to use for the replacement of serving dishes, pots and pans and other irregular expenses.

To incorporate the cost of these more expensive items, simply divide the cost of the item by its useful life. For example, to estimate the contribution of a table to the profitability of a restaurant, a few things about the table must be known or assumed. First, what is its replacement cost? Assuming the table will last five years, a yearly cost for the table would be its total cost divided by five years. This yearly cost can then be divided by the number of months in a year to determine the monthly cost.

#### Calculation of the Monthly Cost of a Table:

Table Replacement Cost	\$600.00
Useful Life	5 years
Per Year Depreciation	\$600.00 /
	5 years = \$120.00 per year
Per Month Depreciation	\$120.00 /
	12 months = \$10.00 per month

This is how much the use of the table costs “per month”. This monthly depreciation expense should be included in the budget of providing restaurant meals. However, since the table usage cost has to be paid independently of the number of meals served, it cannot be considered a variable cost. Accountants usually subdivide these types of fixed payments into fixed costs

and investment costs. The two are differentiated based on the useful life of the item. If it will last more than a year, it is considered an investment cost (also known as “asset”). If it will have to be replaced in less than a year, it is a fixed cost.

#### The Importance of Considering All Types of Costs

Assigning values to the other costs encountered in the business will help determine if they are variable, fixed costs or investment costs. Examples of different types of costs are listed below:

*Labor* – Salaries paid to employees are a fixed cost, since they are paid from month to month. In this example, it is assumed that labor expenses are \$300.00 per month. Many community-run businesses do not pay salaries but instead divide the profits at the end of the day. However, we recommend that community-owned businesses pay for labor based on a monthly wage to avoid problems related to inequitable distribution or a failure to set aside sufficient savings for depreciation.

*Cooking Appliances* – For those items that will last more than a year, divide the replacement cost of the item by its useful life. (Those items that last less than a year or are regular payments, like electricity and rent, are fixed costs and should be assigned a monthly value.) In this example, the total expense of cooking appliances is \$120.00 per month.

*Serving Tableware* – These items tend to break or need replacement more quickly than cooking utensils and can therefore be classified as a fixed cost. In this case, the cost is estimated to be \$40 per month.

*Infrastructure (tables, chairs) and Rent* – The building rent is \$500.00 per month. The depreciation on the table as calculated above would be \$10.00 per month and the chairs an additional \$10.00 per month.

*Utilities (water, electricity, fuelwood or gas)* – The restaurant will spend \$70.00 per month for water and electricity. Gas use may depend directly on the amount of food prepared, so it should be added to the other variable costs.

Based on these calculations, a more detailed budget might look like this:

Variable Costs:		Fixed Costs:	
Steak	\$2.00	Labor Expenses	\$300.00
Rice	0.75	Serving Dishes	40.00
Beans	0.50	Rent	500.00
Cheese	0.25	Utilities	70.00
Condiments	0.15	Subtotal:	\$910.00
Gas	0.10		
Subtotal:	\$3.75		

(continued on next page)

#### Box 4.4 Budgeting Basics (Continued)

##### Investment Costs (Monthly Depreciation):

Table and Chairs	\$20.00
Cooking appliances	120.00
Subtotal:	\$140.00

To complete the budget, a revenue estimate is required. This will be an estimate of the number of meals the restaurant will sell in a given month. This data should come from the preceding market analysis. Based on an average estimate of 20 meals per day, six days per week, there will be 120 meals served a week, or 480 meals a month.

The variable cost per meal should be multiplied by this estimate to give a total monthly variable cost (costs per meal times the number of meals) and then added together with the fixed and depreciation costs. The final budget for the restaurant would look like this:

##### Calculation of the Total Costs per Month:

##### Variable Cost per Meal

$$\$3.75 \times 480 \text{ meals} = \$1,800.00$$

Fixed Costs 910.00

Depreciation 140.00

Total: \$2,850.00

If meals were to be sold for \$10.00 each, and the projected sales volume was 480 meals, then the total projected sales amount would equal  $\$10.00 \times 480 \text{ meals} = \$4,800.00$ .

To determine the anticipated profit or net income, subtract the total costs from total sales, which equals  $\$4,800.00 - \$2,850.00 = \$1,950.00$ . Therefore, in this example 40% of the sales income would be profit. **Important:** It is worth noting that this example does not include other expenses such as marketing, management and financing costs.

Analyzing the profit on a per meal basis, a total profit of \$1,950.00 equates to \$4.06 profit per meal ( $\$1,950.00 / 480 \text{ meals}$ ). This figure is several dollars less than if only variable costs were considered, which shows the great importance of considering fixed costs in the analysis.

ects of other NGOs. They may also be able to suggest which natural attractions offer the best competitive advantage and what is in the best interest of the community. In this respect, the participants of the business should be wary of selecting price as their competitive advantage since larger organizations can often undercut prices. If price is the main selling feature, market share will be hard to maintain and the financial benefits to the community will be reduced.

### 7 - Business Description and Operation

This step involves articulating a description of the operations of the business, including a description of how the services will be provided and how the staff, resources and facilities will be utilized to produce the services the business will offer. In this section, the feasibility of providing the services should be considered. For example, do the skills needed to offer the ecotourism services exist locally or will staff need to be recruited from outside the area? Anyone reading this section should be able to get a clear idea of how the business will operate and that it will be able to succeed based on the descriptions that have been proposed.

### 8 - Sales Forecast

Based on the investigations of the market, suppliers and community readiness, participants need to decide how many customers their ecotourism venture will

serve each month of the year and at what price level. Market research will have provided information on the number of visitors to the site, which should be combined with other information, such as sales volumes of other travel businesses and competitors, to make a reasonable estimate.

Sales estimates are used to make financial projections for the feasibility study, so the figures should be as realistic as possible. It is important to remember that the feasibility study is intended to help participants make sound decisions, not to impress them with overly ambitious projections. The goal is to determine if the project is worth the time, money and effort needed to develop it.

### 9 - Financial Analysis

When the ecotourism business is first started, it will need money to pay for the construction of infrastructure and the purchase of equipment. Another type of funding needed is operating capital or the "cash reserves" to pay for staff salaries and other expenses before money is collected for providing services. As the business starts to generate revenue through sales, it will need to have a positive "cash flow" to cover the expenses of offering services. The following financial analysis is intended to reveal whether the business will be able to produce enough revenue to cover both initial and ongoing costs.

#### Box 4.5 Calculating A Break-Even Point

The break-even point can be determined using the following formula:

$$\frac{\text{Total Fixed Costs} + \text{Total Depreciation Expenses}}{\text{Price per Unit} - \text{Variable Cost per Unit}} = \text{Break-Even Sales Volume}$$

To apply this formula to the example shown in Box 4.4:

$$\frac{\$910.00 + \$140.00}{\$10.00 - \$3.75} = \frac{\$1,050.00}{\$6.25} = 168 \text{ meals needed to break even}$$

This means that in order for the restaurant to cover its monthly costs and break even, it needs to sell an average of at least 168 meals per month or about seven per business day.

To perform the analysis, the participants of the feasibility study will need to prepare a budget to understand the costs and income of the business in detail. A budget is a projection of the revenues, operating costs and start-up expenditures needed for launching and running the business. During the feasibility study, financial projections do not need to be as detailed as those needed for actually running the business, but sufficient analysis must be undertaken to determine if financial success can be achieved. An overview of the basic concepts and steps needed to prepare a budget are presented in Box 4.4.

One of the critical reasons for preparing a budget is to determine the “break-even point,” the point at which the income of the business is able to cover the costs. This will tell the participants the volume of sales needed to begin generating a profit. A sample break-even calculation is shown in Box 4.5. If the anticipated sales volumes are near or below the break-even point, there is a risk that the venture will not be financially viable. In this case, attention should be returned to the earlier steps of the study to determine if costs can be reduced, alternative products offered or larger market segments targeted. If no scenario can be found to create an achievable break-even point, and hence assure that there can be positive returns for investors, it is unlikely the ecotourism project will succeed in its current form.

An ecotourism venture differs from other tourism businesses in its commitment to sustainable planning principles. The social and environmental costs associated with ecotourism development should be included in the calculation of operating costs. These costs are often overlooked and an overly optimistic picture is painted for potential ecotourism development. In the restaurant example above, it may be cheaper to use wood fuel,

due to both the cost of purchasing a gas stove and transporting the gas cylinders to the site. However, from both an environmental and employee health standpoint, cooking with gas is preferable.

Additional funds for monitoring environmental impacts must also be included in the financial analysis. It is essential to ensure that the appropriate environmental and social impact monitoring practices and technologies are pursued. These may be more expensive than conventional alternatives and thus make the business more expensive to operate than the competition. To pay for these additional costs, the business should take advantage of the higher standards by marketing to customers willing to pay a higher price for more responsible practices.

#### 10 - Viability Assessment

At this point in the study, the viability of the ecotourism project needs to be assessed. Will the project generate sufficient economic and conservation benefits to exceed its costs and enhance the welfare of the host community? It is understandable to feel a bit overwhelmed by the potential challenges and risks. Although there may be considerable excitement about the project, after completing the study the participants may discover that the proposed business is too complicated, the market too small, or the site inappropriate for the type of ecotourism proposed.

If this is the conclusion, the feasibility study should not be regarded as a waste of time; rather, the study should be seen as having saved the community a great deal of money and effort that would have been mis-spent. Taking into account what was learned from the investigation, the original concept may be reformulated into something more appropriate for the market, the site conditions or the NGO's or community's abilities. Or, the correct decision may be to refrain from developing ecotourism at the site.

#### Conclusion

Starting an ecotourism enterprise can be risky, but proceeding logically through the steps of a feasibility study can greatly reduce the risk of failure. While it does not guarantee success, this form of business evaluation helps identify the potential pitfalls of the business concept and designs a strategy to overcome them. A greater

understanding of business issues is helpful to communities, NGOs and protected area managers during ecotourism planning. Ultimately, an ecotourism business is more likely to be successful if all players participate actively in the feasibility process and not just review the final results.

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## Resources

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The Biodiversity Support Program

[www.BCNet.org](http://www.BCNet.org)

Provides lessons learned during this joint effort to implement development projects related to conservation including experiences in conservation enterprise.

The BIOTRADE Initiative (Programa Biocomercio Sostenible) [www.humboldt.org.co/biocomercio/index.htm](http://www.humboldt.org.co/biocomercio/index.htm)  
Contains online business planning resources designed to enhance the investment and trade of biodiversity-based products and services using sustainable criteria.

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Ziffer, K. 1989. *Ecotourism: The uneasy alliance*. First in Conservation International's Series of Working Papers on Ecotourism. Washington D.C.: Conservation International.

Sources of Tourism Statistics

The ARA Consulting Group

The Marine Building

355 Burrard, Suite 350

Vancouver, British Columbia V6C 2G8 CANADA

The International Ecotourism Society

Ecotourism statistical fact sheet.

733 15th St NW Suite 1000

Washington DC 20005-2112 USA

Journal of Travel Research

University of Colorado Campus 420

Boulder, Colorado 80309-0420 USA

Tourism Works for America Council

1100 New York Avenue, NW, Suite 450

Washington D.C. 20005-3934 USA

U.S. Travel Data Center at the Travel Industry Association of America

1100 New York Avenue NW #450 West

Washington D.C. 20005-3934 USA

World Tourism Organization (WTO)

Capitán Haya, 42

28020 Madrid, SPAIN

[www.world-tourism.org](http://www.world-tourism.org)

The World Travel & Tourism Council (WTTC)

1-2 Queen Victoria Terrace

Sovereign Court

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## Chapter 5

# Preparing a Business Plan

### Introduction

Once the feasibility study is complete, the community, NGO or business owner should be able to decide if it is worth devoting the time and money to proceed with the ecotourism activity. If so, the next step is the preparation of a business plan. This chapter provides an overview of the business planning process with particular attention to those issues unique to planning an ecotourism business. Resources that can provide more in-depth guidance are listed in the Resources section at the end of the chapter.

While conservation professionals are unlikely to ever develop a business plan themselves, familiarity with the key concepts and terminology will help considerably to dispel the mysteries of the business planning process. This increased understanding can empower conservation professionals to engage in more effective dialogs with private sector tour operators and to make more informed decisions regarding business partnerships.

### The Purpose of a Business Plan

A business plan outlines a path for a business to follow and describes the core goals and strategies the business will pursue. As in the feasibility analysis process, preparing a business plan will be helpful for the participants in the business both to teach them more about their present situation and to provide a road map that shows the way to long-term success.

The main purpose of a business plan, however, is to attract financing for the startup or expansion of the business. The plan provides potential investors with valuable information about the vision and direction of the business, to make a case that they should invest money in the business (see Chapter 6 for more details on financing). After the business is started, the plan will also be useful for communicating the company's operations and goals to suppliers, employees and the community.

### Target Audience

When preparing a business plan, business owners must give careful thought to the plan's audience. Business plans differ from feasibility studies in that they place more emphasis on the presentation of the collected information to external audiences. Whereas feasibility studies have an objective and skeptical tone, business plans should be more persuasive and confident. Business plans must also contain enough accurate information to convince a loan manager or other financial officer that the business is stable enough and holds enough promise to risk the institution's money. Business plans are also useful internally for communicating the plans and vision of the business to employees.

In the modern business environment of ecotourism operations, sound financial and business planning plays an increasingly important role. Until recently, few financing opportunities existed for small NGO-based businesses. With the advent of The Nature Conservancy's EcoEnterprises Fund and other "socially-conscious" investment funds (see Chapter 6), more financing is available, but the proposed business plans must be persuasive. Like other investment funds, these funds must also produce positive returns on their investments to demonstrate that businesses that depend on conservation are sound investments.

### Preparing a Business Plan

When writing a business plan, business owners and participants do not have to do it alone. If they lack experience in writing a business plan, it would be wise to work with a consultant or advisor who can provide advice, input and revision of the business plan before it is submitted to any prospective investors, since the first impression the funding agency receives is the lasting one, and there may not be an opportunity to resubmit.

If the business owner hires a consultant to assist with writing the business plan, the owner still needs to work closely with the consultant to ensure that the plan

conveys the vision of the business. Although a consultant might be able to produce a detailed document without much input, such a plan would have little value because it would not express the owner's intentions. Therefore, the consultant's role should be to participate in the planning process with the owner, articulate the owner's views at each step, provide advice on the plan's structure and help avoid pitfalls. Common business planning mistakes are shown in Box 5.1.

#### **Box 5.1 Common Business Planning Mistakes**

- ❖ Lack of understanding of target markets.
- ❖ Unrealistic sales forecasts.
- ❖ Missing fixed or environmental costs.
- ❖ Not using language that conveys enthusiasm and confidence in the business.
- ❖ Writing the business plan and not referring to it later.

To impress potential investors, the business plan should convey success at each step, but not at the expense of honesty. In fact, it will impress readers more if the plan acknowledges business weaknesses and also presents ways to overcome them.

#### **Special Considerations for Ecotourism**

Like all well-managed organizations, ecotourism enterprises require sound business planning to succeed, but the planning process differs from those of other industries because social and environmental factors must also be considered. If the business is to rely on using a protected area, the business plan should occur in the context of a Conservation Area Plan (CAP) or General Management Plan that balances economic and environmental considerations. For example, building infrastructure and operating in remote and environmentally-sensitive areas is more expensive than traditional forms of tourism (see The Nature Conservancy's guidelines for Tour Operators and Ecolodges for more details). Providing educational experiences through interpretation requires a lower guide to customer ratio, and smaller group sizes mean higher costs per person. The participants should keep such special considerations in mind throughout the process of developing the business plan.

#### **Ten Components to Include in an Ecotourism Business Plan**

A thorough business plan should address each of the following components (it is not necessary to use the same order and section headings). Business plans are written in a concise manner and are usually not more than about 20 pages, excluding appendices and attachments. Note that the following sections resemble the basic skeleton of the Feasibility Analysis; in fact, depending on the depth of the research of the analysis, the business owner should be able to utilize much of the same material when preparing the business plan.

1. Executive Summary
  - ❖ Highlights of the business plan
2. Company Description
  - ❖ Details of the services or product offered
  - ❖ A mission statement for the business
3. Industry Analysis
  - ❖ An evaluation of the standards, trends and characteristics of the ecotourism industry
4. Competition Analysis
  - ❖ An identification of the major competitors for your target market
  - ❖ A comparison of your strengths and weaknesses versus theirs
5. Marketing Plan
  - ❖ A description of the target customers, their motivations and purchasing patterns
  - ❖ An estimate of the market size and number of customers expected
  - ❖ Details of the promotional and sales activities used to sell the product to overcome the competition and industry challenges
6. Operations
  - ❖ Details of the daily business functioning
7. Management and Organization
  - ❖ An overview of the business structure
  - ❖ Identify who will fill key positions and descriptions of their backgrounds especially where they have experience relevant to the proposed business.
8. Financial Projections
  - ❖ Historical, current and projected financial data (for existing businesses)

- ❖ Includes a performa (projected) cash flow, income statement and balance sheet
9. Monitoring and Evaluation
- ❖ Specifies the criteria for success and method for monitoring the business
10. Appendices
- ❖ Additional information that reinforces the business plan conclusions

The contents of each of these components and the steps for producing them are described in more detail below.

### 1 - Executive Summary

The executive summary presents a concise summary of all aspects of the business. A summary is very impor-

tant since most investors, having many investment options, are unlikely to spend the time to read the plan in detail if their interest is not captured by the executive summary. The summary should be very well written, clearly explain the strengths of the business and convey to readers that a thorough analysis of the ecotourism industry and potential competitors has been performed.

In the case of an NGO-managed business, the summary should include a paragraph on the background of the NGO that explains the NGO's mission and how it came to work with the business. Any special benefits the business will enjoy because of its association with the NGO, such as access to markets, an eco-friendly image, or privileged use of the protected area, should be mentioned. Keep in mind that NGOs have a very poor record as business managers. Therefore, investors will likely be skeptical if too much management or

#### Box 5.2 Business Plan Component: Company Description Example

*The following example is a portion of the Company Description section of a business plan used to raise funds for an ecotourism business. The excerpt describes the different forms of overnight accommodations the business would offer based on the preferences of the organizations that provide funding.*

##### **Company Description: Overnight Accommodations**

After consultation with local experts and with due input and agreement from the principal investors, the company would develop lodging facilities based on the following choices:

- a. Tented with ancillary buildings from local materials
- b. Cabana using tested methods of construction
- c. Pontoon or over-water accommodations.

##### *Tented camp*

This plan proposes that the principals and sponsor agree to proceed with a tented camp or camps. A tented camp would be highly compatible with the objective of enabling upscale visitors to gain what is perceived as an experience with nature.

Carefully placed and well spaced custom made tents (prices and specifications have been received from South Africa) mounted on hardwood platforms connected to central areas by partially elevated walkways all in carefully arranged clearings would offer a unique "sense of place" (the key to success of most lodging operations). The hardwood for the project would be extracted in compliance with sustainable practices.

The well-equipped tents would accommodate from 1-5 people, usually a couple or two traveling companions, and would have en suite (attached) bathroom units with running cold and probably hot water, a modern shower unit and composting toilet.

Public areas will, in the true tented camp fashion, be essentially limited to a dining area and lounging facility (with aspect) associated with a lecture area, which may naturally incorporate a "sundowner" cocktail area. The central public area may be tented or thatched, depending on the final architectural conception. More substantial buildings built out of visually acceptable materials with minimum impact will be needed for scullery and store areas as well as laundry and some staff facilities.

The exciting experience of sleeping under canvas can be made more practical for operation in hot woodland by the placing of a simple thatch frame over the already spacious tent. This offers protection from falling material, creates shade and will encourage a draft.

##### *Thatched cabanas*

This type of building would accommodate a clientele expecting programs and services more in keeping with mainstream lodging with the consequent pressures on truly sustainable activity and an influence on wildlife patterns in the vicinity. A thatched property would be in competition with existing lodges, although it could ultimately complement them with tourism circuit opportunities and increasing awareness of the region.

##### *Pontoon accommodations*

This method of accommodation was the subject of preliminary postings. Pontoons have the advantage of tents and can be moved according to the special wishes of the client. But each would need to be individually equipped for all services including catering. There would also be additional cost factors of moving these units, creating safe jetties, servicing needs, the possibility of sinking and other safety precautions.

source: unknown



Competitive advantages in a business plan for Noel Kempff Mercado National Park in Bolivia might include unspoiled forest and savannah, pink river dolphins, and giant river otters as attractions that make travelling to this remote protected area well worth the effort. © Steffen Reichle, TNC

marketing hinges on NGO support. Though the ecotourism businesses may have an important conservation component, in order to attract financing the business must be able to stand on its own from a financial perspective. The business owner's commitment to succeeding on business terms should be mentioned early on in the executive summary.

## **2 - Company Description**

The company description presents an overview of the business being proposed, the objectives of the business over time and a description of the products and services. The resulting description will be the basis of a mission statement explaining what the ecotourism enterprise is and what it provides. This section should also explain the resources and funding that will be required and the amount of growth and profit expected.

If it is difficult to explain the ecotourism venture in a concise manner, it can be an indication that participants do not have a good understanding of their target market and how to reach them. In this case, the participants may need to spend more time on the feasibility analysis, such as the resource inventory and market analysis. An excerpt of a company description is presented in Box 5.2.

In addition to a description of the products and services, the company description should also include the mission statement of the business. If the ecotourism business has been organized purely around conservation goals, it will need to adjust its mission to clearly demonstrate an intention of achieving financial success. Though financiers may support or even require that conservation goals are a part of the company's mission, they will also expect the business to be focused on meeting the demands of the market.

## **3 - Industry Analysis**

The bulk of the research for this section will have been completed during the feasibility study, but a more in-depth industry analysis should be prepared in the business plan for the benefit of readers who may be less familiar with ecotourism.

Information on the tourism industry as a whole tends to be widely available. Statistics such as the number of visitors that travel to a specific country or the average amount that tourists spend can be acquired from national tourism boards. The business owner may have to conduct its own surveys or collect ecotourism specific data, but such work should pay off for convincing financiers that the business owner understands the specifics of the industry.

Other sources of information about ecotourism are organizations such as The International Ecotourism Society (TIES). Universities can also be a good source of market research since many tourism departments now offer courses in ecotourism as a part of specialty programs.

#### **4 - Competition Analysis**

The analysis of the competition should support conclusions made in the industry and target market descriptions. Research on similar product offerings outside of the local area may be difficult to obtain in developing countries, but by talking with tour operators in capital cities, representatives of foreign tour groups, independent travelers and international organizations, the participants can learn a great deal. Access to the Internet also facilitates research and provides easy access to information about the itineraries and types of services offered by similar companies around the world.

Another major factor to consider in this analysis is how difficult it would be for potential competitors to open a competing business. Although the proposed business may currently be the only ecotourism facility within 50 kilometers of a certain national park, what would prevent another business from opening in the same area? Does the business have any special agreements or licenses that allow it to offer a unique experience? There are often few obstacles preventing new ecotourism businesses from forming, which is also one of the reasons ecotourism is so widely popular as an income and conservation strategy.

Compare the cost of starting an ecotourism business to the costs of opening a manufacturing plant—rarely do community-based ecotourism businesses require a similar level of investment. At the same time, an ecotourism company's employees and facilities are much "closer" to their customers, making the quality of experience perceived by ecotourists extremely important. The business owner must be aware that there are few barriers to entering the ecotourism market and should present a strategy in the company's marketing and sales plan to position itself favorably against future competitors. This is especially a concern if other businesses do not adhere to the same environmental standards, which may lower their costs and allow them to offer a lower price than responsible ecotourism providers.

#### **5 - Marketing Plan**

The marketing plan is a plan for identifying and attracting the right customers for the business. Without a clear understanding of the target markets and how to

sell to them in a cost-effective manner, the business will not generate enough revenue to succeed. The selection of the target market goes hand in hand with the industry and competition analysis. As in a feasibility study, a business plan has to include a very specific description of the potential clients. Although some variation will exist in potential customers' motivations for visiting, country of origin, their age, etc., the bulk of the clients are likely to share certain characteristics.

In addition to a general description of the clients, financiers will be impressed if some research has been done on how the clients select their tourism products. Below are examples of questions the marketing plan can address to describe potential clients.

- ❖ Are clients more likely to make their travel plans from their home country or after they have arrived?
- ❖ Do clients prefer to book their accommodations over the Internet?
- ❖ Do the types of travelers the business seeks to attract tend to travel in groups? If so, could the business offer customized tour packages to attract these customers?
- ❖ What amenities do the clients require, both in terms of what the customers would accept and what would increase their satisfaction?
- ❖ Do clients require a private bath, air conditioning, a bilingual guide?

The more knowledge a business owner can demonstrate about the clients, the better the chance the business has of reaching them with a product that satisfies their needs.

A marketing plan should acknowledge the challenges presented in the industry, market and competition analyses and define how the business will overcome them. Because of the distance between many ecotourism operations and their target markets, it may be wise to work with someone experienced in promoting tourism products to the target market when preparing this section. If the enterprise will be partnering with other businesses as a way to sell the product, it is important to explain in the marketing plan how the relationship will function and how much the business will depend on independent partners for promotions. The marketing plan should also clarify the sales commissions that will be paid to partners.

Since the ability to sell the company's product is critical, potential investors will likely refer to this sec-

tion early on in their review of your plan. Be sure that it is well written and that it clearly demonstrates how you will attract a steady flow of visitors to your site.

## 6 - Operations

This section should include details about how the business will be run, including information about the services being offered, the numbers of employees, how services will be provided and how the facilities will be used. The section should be expressed in an attractive and readable form for potential investors. Because facilities play such a critical role in ecotourism businesses, it is important that this section adequately describe the facilities. The section must have enough information to ensure that potential

### Box 5.3 Business Plan Component: Operations Example

*The following is part of the Operations section of a business plan written for the ecotourism business described in Box 5.2. In the excerpt below, some of the details of the operations at the company's two camp sites are described.*

#### **Operations Section: Camp Site Operations**

Staffing would be sufficient to offer personal attention to each tent including wake-up tea tray and laundry service.

The management might live onsite in appropriate facilities while staff live at the towns nearest to each site. A hospitality director might be shared between the two camp sites.

Guests would enjoy what would be perceived as an informal nature experience at each camp and would dine communally with a self-pour bar. The table settings would be high quality.

Guests would enjoy an itinerary during the six, seven, ten, or fourteen day stay that would enable them to enjoy two or more ecosystems. Most would spend three days at Camp A and then three days at Camp B. Only top quality guiding and management staff would be retained.

The services of each tent would be based on hurricane lamp lighting in the main tent with solar powered back up to hurricane lamps in the bathroom area and solar power for the bedroom if necessary.

In addition to tents, Camp B would offer three or four hammocks so that clients can, if they so wish, enjoy the option of a deeper experience with nature.

Clients would return to the principal camp for hot water and other "luxuries," although the remote location would be noted for its hospitality, guiding and food.

source: unknown

investors understand the product but not so much that they are overwhelmed with details.

The description might also set out a plan for managing the business, including who will work in the business, who will make decisions, who will be paid and at what rate. Anyone reading this description should be able to get a clear idea of how the business will work, what will be offered and why it will be successful. A portion of the operations section of a business plan is presented as an example in Box 5.3.

## 7 - Management and Organization

Often the management and organization of a business is the key selling point to potential investors. This section of the business plan should briefly present the names and backgrounds of the key players in the business. Investors often are willing to take a chance with a risky business if they see that the business plans to hire people with experience and a solid reputation. In ecotourism, especially at the community level, the employees may have limited experience with tourism, but the plan should present them in the best possible light: highlight any training they may have received, their experience both living and working in the community, and their knowledge of traditional practices and the local environment. Any training or outside assistance the business intends to receive in management, promotion, or visitor services, for example, should be reported. If the period of training is conditional or will stop at a certain point, this should also be explained.

## 8 - Financial Projections

The financial statements the business plan provides to potential investors are similar to the ones used in the preparation of the feasibility study. However, the financial analysis may have been simplified for the feasibility study. The business plan may need to present more information to investors to prove the financial viability of the business. Potential investors will not only need to see evidence that the business can achieve a profit, they will also want to compare the company's financial statements against those of others in the industry. Investors will analyze the money needed by the business to be sure it will have sufficient cash to cover operating expenses and investment costs.

If the company does not already employ an accountant on its staff, it should consider contracting an outside accountant to prepare financial projections. In order for investors to analyze financial statements,

#### Box 5.4 Cash Flow Statement Example: The Yunguilla Community Ecotourism Project, Ecuador

The Yunguilla Community Ecotourism Project is located about an hour outside of Quito, Ecuador, on private lands near the cloud forest of the Maquipucuña Reserve. Once a small farm, the land and facilities were acquired by the Maquipucuña Foundation, a local NGO, and established as a community ecotourism business. The business initially consisted of a small lodge accommodating eight people and restaurant serving about 10 people.

The following cash flow statement was prepared as part of a business plan to raise funding to expand the restaurant and lodge. The statement shows the projected income and expenses over the first six years of the business (amounts shown are in thousands of Ecuadorian sucres.)

CASH IN	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Restaurant - Day Tourists	7,686.1	9,223.3	10,145.6	11,160.2	12,276.2	13,503.8
Guiding Fees	869.8	1,043.8	1,148.1	1,263.0	1,389.3	1,528.2
Restaurant - Overnight Tourists	3,074.4	3,689.3	4,058.2	4,464.1	4,910.5	5,401.5
Ecolodge Accommodations	2,669.6	3,203.6	3,523.9	3,876.3	4,263.9	4,690.3
Resident Volunteers	5,545.7	6,100.2	6,710.2	7,381.3	8,119.4	8,931.3
NGO Funding	779.5	857.4	943.2	1,037.5	1,141.2	1,255.4
Other Tourist Income	1,102.6	1,212.9	1,334.2	1,467.6	1,614.4	1,775.8
<b>TOTAL CASH IN</b>	<b>21,727.7</b>	<b>25,330.5</b>	<b>27,863.5</b>	<b>30,649.8</b>	<b>33,714.8</b>	<b>37,086.3</b>
<b>CASH OUT</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>
<i>Administrative Expenses:</i>						
Administrator	960.0	1,056.0	1,161.6	1,277.8	1,405.5	1,546.1
Bookkeeper	720.0	792.0	871.2	958.3	1,054.2	1,159.6
Bookkeeper Assistant	720.0	792.0	871.2	958.3	1,054.2	1,159.6
Guide Manager	720.0	792.0	871.2	958.3	1,054.2	1,159.6
Kitchen Manager	720.0	792.0	871.2	958.3	1,054.2	1,159.6
Telephone	360.0	396.0	435.6	479.2	527.1	579.8
Electricity	240.0	264.0	290.4	319.4	351.4	386.5
Subtotal	4,440.0	4,884.0	5,372.4	5,909.6	6,500.6	7,150.7
<i>Tourist Operations:</i>						
Guides	936.0	1,029.6	1,132.6	1,245.8	1,370.4	1,507.4
Kitchen Staff	1,352.0	1,487.2	1,635.9	1,799.5	1,979.5	2,177.4
Food and Supplies	5,380.2	5,918.3	6,510.1	7,161.1	7,877.2	8,664.9
Depreciation	800.0	1,267.5	1,745.0	1,745.0	1,745.0	1,745.0
Tour Operator Commissions	742.8	817.1	898.8	988.6	1,087.5	1,196.2
Commissions to Families/Volunteers	2,772.8	3,050.1	3,355.1	3,690.6	4,059.7	4,465.7
Miscellaneous	420.0	462.0	508.2	559.0	614.9	676.4
Maintenance	360.0	396.0	435.6	479.2	527.1	579.8
Promotion and Publicity	1,086.4	1,266.5	1,393.2	1,532.5	1,685.7	1,854.3
Subtotal	13,850.2	15,694.3	17,614.4	19,201.4	20,947.0	22,867.2
<i>Investment Expenses:</i>						
Restaurant Expansion	2,200.0	0.0	-	-	-	-
New Bathroom Facilities	800.0	0.0	-	-	-	-
Restaurant Furniture	500.0	0.0	-	-	-	-
Septic System	600.0	0.0	-	-	-	-
Lodge Expansion	0.0	1,500.0	-	-	-	-
Lodge Furniture	0.0	800.0	-	-	-	-
New Cabins	5,250.0	5,250.0	-	-	-	-
Handicrafts Products	0.0	2,000.0	-	-	-	-
Subtotal	9,350.0	9,550.0	0.0	0.0	0.0	0.0
<b>TOTAL CASH OUT</b>	<b>27,640.2</b>	<b>30,128.3</b>	<b>22,986.8</b>	<b>25,111.0</b>	<b>27,447.6</b>	<b>30,017.9</b>

continued on next page

**Box 5.4 Cash Flow Statement Example: The Yunguilla Community Ecotourism Project, Ecuador** *(continued)*

“Cash in” refers to the money that will be received by the business. The figures reflect the revenue the business owners expect to receive by category as the business grows over time. The revenue is broken down by activity in order to build a more accurate picture of how much money will be received. This level of detail also allows the owners to focus on growing each part of the business.

“Cash out” refers to the money that is spent by the business. The figures show what the business owners expect to spend by category in each year of the business. For example, the amount spent on salaries for the kitchen staff is expected to increase over time because more workers will be needed to support a growing restaurant business.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
NET CASH FLOW	(5,912.5)	(4,797.8)	4,876.7	5,538.8	6,267.2	7,068.4
CUMULATIVE CASH FLOW:	(5,912.5)	(10,710.3)	(5,833.7)	(294.8)	5,972.4	13,040.8

“Net cash flow” shows the amount of cash remaining in each time period after “cash out” is subtracted from “cash in”. The net cash flow is negative in Year 1 and Year 2 (negative numbers in financial statements are shown in parentheses) because the large amount the business will spend on construction costs causes “cash out” to be greater than “cash in” for those periods. Note that the “cumulative cash flow” is positive by Year 5, which shows that the business is capable of becoming financially sustainable over time.

source: González, 2000

the statements should follow generally accepted accounting principles. Some investors might also require that financial statements be independently certified.

Three different kinds of financial statements are included in a detailed financial projections section: the cash flow statement, the income statement and the balance sheet. The cash flow statement reports income and spending at the time money comes into and out of the

business. For example, if customers pay several months in advance of their arrival to reserve space during a busy period, “cash in” is recorded at the time the money is received. The income statement, on the other hand, reports the income at the time the customers stay at the lodge because this is when the money is actually earned. Box 5.4 presents an example of a cash flow statement.

**Table 5.1 Obstacles to Increasing Profitability**

Single Most Important Obstacle	Developed Countries	Developing Countries	Combined
Lack of financing to expand	25%	22%	23%
Lack of financing for marketing	-	20%	15%
Difficulty in attracting tourists	-	14%	10%
Too much local competition	-	6%	4%
Difficulty in recruiting staff	18%	6%	9%
Relatively high operating costs	11%	9%	10%
Cost of servicing existing debt	21%	2%	7%
Extreme seasonality	21%	7%	10%
Lack of knowledge	-	2%	2%
Other	4%	12%	10%
TOTAL FOR GROUP	100%	100%	100%
LODGES REPORTING	28	78	106

source: Sanders and Halpenny, 2001

Estimating the annual cash flows of the business is important for knowing the additional funds that will be needed each year and how the business will perform over time. Estimating cash flows on a monthly basis is also important for cash management, especially due to the seasonal nature of tourism. There may be months during the year in which it does not make financial sense to maintain a full staff, or when it will be necessary to borrow money to pay financial obligations. Investors will expect that the business owner understands the seasonal variations in the business and has a plan for covering cash shortfalls.

The third financial statement included in the financial projections is the balance sheet, which lists the values of the assets and liabilities of the business. Assets refer to things the business owns, from an ecolodge, to furniture, to camping equipment. Liabilities refer to what the business owes to organizations, such as a bank loan. The balance sheet reveals the value of assets and the amount of pending loans. Unless funding is being sought, a small business owner would rarely prepare a balance sheet since it is not so much a measure of profitability as it is a picture of the value of the business. A balance sheet also shows who owns the value of the business.

Investors review business plans with an expectation of making a certain rate of return on the funds they contribute. Some of the benefits of ecotourism are intangible and not easily expressed on an income statement, e.g., the preservation of species habitats or cultural diversity, which makes investors difficult to find. Table 5.1 shows that a lack of financing is one of the greatest barriers to increasing profitability for ecotourism businesses. For this reason, it may be necessary to present the business plan to financiers with social and environmental goals. (The topic of finding investors is discussed in detail in Chapter 6.)

### **9 - Monitoring and Evaluation**

From the perspective of a protected area manager or NGO, the success of the business may be measured by the protection of an area's natural or cultural diversity. Business owners, creditors and investors, on the other hand, measure their success using exclusively financial criteria. Both criteria must be used when evaluating the results of implementing an ecotourism business plan.

For the planning process to achieve success, it is important that the feasibility study and business plan are integrated into the ongoing activities of the business

and regularly evaluated for producing the desired results. By linking the feasibility study and business plans to the goal setting process of the business, the intentions of the plans can be realized and feedback can be gathered on successes and shortcomings. As described in Volume I, Part II, a Conservation Area Plan (CAP) or Site Conservation Plan (SCP) is not complete until progress is measured and success is evaluated.

### **10 - Appendices**

So as not to overwhelm readers with unnecessary details, it is common to use appendices at the end of the business plan to present supplementary materials. Such materials might include:

- ❖ promotional materials that have already been developed
- ❖ photographs of the site
- ❖ data from marketing surveys or interviews
- ❖ a floor plan detailing the layout of a facility
- ❖ maps of the site showing the distance to airports and major cities

Each attachment should be clearly explained and present a picture of a well-designed, profitable enterprise.

### **Conclusion**

The components described above make up the essential elements of a good business plan. A comprehensive and well-written business plan can be used to secure financing, orient employees and organize and focus the business. However, a disorganized, poorly-written plan will fail to accomplish these goals and could potentially encourage a business owner to invest resources in a losing proposition and subject the protected area to unnecessary environmental degradation.

Business planning should not be undertaken as an aside or as an afterthought to fulfill a funding requirement. It is critical that business owners be involved in the preparation of the plan and analysis process and that their vision of the ecotourism business is articulated throughout the plan.

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*Ecotourism Management Newsletter*

[www.kalahari-online.com](http://www.kalahari-online.com)

Provides free quarterly newsletter on ecotourism businesses and the challenges they face with over 20 back issues available. Also contains example feasibility studies.

*The Ecotourism Planning Kit: A Business Planning Kit for Ecotourism Operators*

[www.hawaii.edu/pbcp/pbcpecokit.htm](http://www.hawaii.edu/pbcp/pbcpecokit.htm)

A detailed, start-to-finish business planning guide of more than 200 pages for ecotourism business development, from feasibility analysis, market research, business plan development, to financial planning.

EnterWeb

[www.enterweb.org](http://www.enterweb.org)

An annotated meta-index and information clearinghouse on enterprise development, business, finance, international trade and the economy in the age of cyberspace and globalization.

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Programa Biocomercio Sostenible (The BIOTRADE Initiative)

[www.humboldt.org.co/biocomercio/index.htm](http://www.humboldt.org.co/biocomercio/index.htm)

Contains online business planning resources designed to enhance investment and trade in biodiversity-based products and services that use sustainable criteria.

Small Business Resource Guide

[www.sba.gov/starting\\_business/startup/guide.html](http://www.sba.gov/starting_business/startup/guide.html)

A web site of the U.S. Small Business Administration dedicated to assisting small businesses during the start up process including a startup guide.

Texas Parks & Wildlife Tourism Business Guide

[www.tpwd.state.tx.us/nature/tourism/your\\_business/](http://www.tpwd.state.tx.us/nature/tourism/your_business/)

Making nature your business: a guide for starting a nature tourism business in the lone star state. Written by the Texas Agricultural Extension Service and Lower Colorado River Authority.

# Financing an Ecotourism Business

### Introduction

This chapter provides guidance on identifying sources of financing for ecotourism businesses. Financing refers to raising or collecting money to start or expand a business. Financing is used in this chapter in the broader sense of both traditional funding sources, such as investments and loans, as well as sources particular to ecotourism, such as grants and support from organizations that specialize in businesses linked to social and environmental goals. This chapter presents a range of financing options and some of the factors to consider when making financing decisions.

### Using the Business Plan

The business plan is the main document used to solicit funds from investors, lenders and other funding organizations. For this reason, it is important that the plan be as complete and persuasive as possible. Regardless of the funding approach that will be used, the business plan is an important document for communicating the vision and likely success of the business. The business plan can be widely circulated as a way of reaching as many potential funders as possible. It may also be included in a grant proposal that solicits funds from donor organizations. During discussions with financing organizations, the plan will also serve as a vehicle for suggesting changes, analyzing the business and negotiating before funding is provided.

### The Importance of NGO Participation

Just as it is important for NGOs to participate in the business planning process, it is also important for NGOs to provide guidance to ecotourism businesses during the financing stage. Involving an NGO in the process of identifying funding can help the business highlight the social and environmental benefits ecotourism offers. Organizations that provide special funding opportunities for ecotourism may even require businesses to have relationships with NGOs as evidence of their commitment to environmental and social objectives.

Depending on the mission of the NGO, the NGO itself might welcome the opportunity to work with an ecotourism business as a way of meeting its own goals for improving the social and environmental conditions of the region. NGOs can share their experience with writing proposals and presenting project ideas in a way that is most likely to receive funding from donors. NGOs may also be able to offer other helpful connections such as arranging business plan reviews by qualified individuals, including board members or international colleagues.

### Types of Financing

The primary ways new businesses raise funds are from investors and through loans.

#### Equity

Receiving money from investors is known as equity financing. When the investor gives money to the business, the investor receives partial ownership or “equity” in the business in the form of shares or stock. This ownership entitles the investor to a percentage of future profits and control over business decisions in proportion to the size of the investment. The money then belongs to the business and is used to pay for start-up or expansion costs. An equity investment does not stipulate an amount or schedule for repayment like a loan; rather, to recoup their investment or realize a return, the equity shareholder “sells” their ownership percentage in the future.

#### Debt

On the other hand, when a business raises money by taking out a loan, the business agrees to repay the full amount of the loan plus interest over time. Receiving a loan to fund a business is known as debt financing. The advantage of debt financing is that existing business owners do not give up profits or control of the business to other investors. The downside of debt financing is that the business is required to repay the loan by making regular payments to the lender.

One limitation to debt financing is that lenders require the business to have adequate collateral to provide assurance the loan can be collected. Collateral refers to an asset, such as a building, that the bank can seize in the event the business cannot repay the loan. If the business is unable to make payments, then the business may have to declare “bankruptcy” in which case the owners will lose control of the business to the lenders. When deciding whether to raise money through loans, the owners must make careful decisions about the ability of the business to make regular loan payments in order to decide what mix of equity versus debt financing is best.

### Sources of Financing

There is no single set of criteria for determining which sources of financing should be used for any given business. Instead, financing decisions depend on the particular circumstances faced by the business including the context of the country and region where the business operates, the resources it has available at a particular site and the amount of money that needs to be raised. More than likely, the business will rely on a combination of funding sources to raise all the money that is needed. Business owners will need to be resourceful, explore as many options as possible and take full advantage of any special circumstances or opportunities they have.

### Self-Financing and Local Investment

Self-financing refers to participants investing their own savings to start the business rather than rely on outside sources. The advantages of self-financing are that the participants get to maintain control of the business and also do not have to search for other funding sources. The disadvantages are that the participants may not have enough savings to start the business and that

they risk losing what is potentially a large percentage of their savings if the business fails. As it turns out, self-financing is one of the most common ways funds are raised for ecotourism. According to a survey of ecolodges by The International Ecotourism Society in 2000 (Sanders and Halpenny, 2001), 58% of the funding used to start ecolodges came from the owners of the lodges themselves (see Table 6.1).

The implication of such a high rate of self-financing is that those wishing to start their own ecotourism business would do well to first look to their own savings for starting the business. In addition, they should find out if there is anyone else in the community who may wish to participate in the business who can also contribute their own funds. Even if most of the funds have to be raised from outside the community, self-financing is an important source of funding. Using at least some self-financing demonstrates confidence and commitment on the part of the founding participants and may increase the chances that other investors or lenders will provide funding. In fact, many small business loan programs require that at least some amount of funding comes from the owners themselves.

### Commercial Banks

Commercial banks may be another source of financing; however, banks are often only interested in extending loans to larger businesses. Traditional banks may not be familiar with the concept of ecotourism and would be more likely to loan money to a retail business, for example, than an ecotourism business, because the associated risks are much better known. If a loan is used to build an ecolodge, the bank may not be convinced that the ecolodge will have sufficient value to warrant a loan.

As commercial banks tend to be conservative in their lending policies, ecotourism businesses should first pursue investors, lenders and funding agencies that are familiar with ecotourism before relying on commercial banks. Ideally, by working with an NGO, the business will be able to identify financing organizations that have a mandate to support projects with environmental and social goals. While commercial banks may serve a purpose for ecotourism such as supplying cash reserves for operations, they are more likely to be an option after the ecotourism business has a track record of several years of success and has more valuable assets that can be used as collateral. At that point, the bank might be willing to extend a smaller loan that could be used for expansion or for purchasing new equipment.

**Table 6.1 Sources of Financing for Ecolodges in Developing Countries**

Financing Source	Percent of Total Funding
Owner's Own Funds	58%
Friends and Family	8%
Other Equity Investors	19%
Commercial Bank Loans	11%
Government Loans	2%
Private Loans	4%
Other Sources	9%

source: Sanders and Halpenny, 2001

### ***Grants and Donor Agencies***

Grants are non-repayable funds from government agencies or private foundations that are made to achieve the objectives of the granting agency. In most cases, for-profit business are not eligible for grants. However, ecotourism businesses, which inherently provide environmental and social benefits, may be able to receive grants from donor agencies. Grants are most likely to be available for infrastructure projects (e.g., trail construction) or for training local people to participate in the enterprise. The business plan needs to demonstrate how the business will contribute to community development, conservation or education, in addition to generating a profit.

Grants are available from a wide range of organizations, including local, national and international NGOs, and government agencies. Bilateral assistance agencies are government agencies of industrialized nations, such as the United States Agency for International Development (USAID), which provide assistance to developing countries. Multilateral organizations, such as the United Nations Environmental Programme (UNEP), are international organizations made up of multiple member nations.

Although international assistance agencies are unlikely to provide direct funding to an ecotourism business, they will often contribute money to organizations or programs that do. One way to find out about these smaller programs is to contact the local country office of the assistance agency and inquire about programs that provide support to ecotourism businesses. An extensive listing of bilateral and multilateral funding agencies that support biodiversity-related projects has been prepared by the Convention on Biological Diversity; refer to the Resources section at the end of this chapter for a link to this valuable site. Also listed in the Resources section is a link to the contact information of each of the country offices of the Inter-American Development Bank (IDB), an example of a multilateral funding agency that supports biodiversity-related projects.

### ***Microfinance Institutions***

Microfinance refers to small or “micro” loans designed to help individuals start or expand their own small business. Microfinance comes in many different sizes and varies according to the wealth of the target populations. Depending on the country and institution, a microfinance loan might be as small as US\$50 to as large as several thousand dollars. Microfinance is extended to an individual or business operated by the

owner and perhaps one or two employees. Therefore, microfinance would not be an appropriate source of funding for the construction of an ecolodge resort, which would require a greater amount of financing and a larger business organization to operate it. However, microfinance could be useful for ecotourism to finance the purchase of new furniture for converting an extra bedroom in a family dwelling into a guest house, for instance, or for buying backpacks or tents to lead camping expeditions as a private guide.

Microfinancing has become increasingly popular in recent years and is funded by many of the same organizations mentioned in the previous section. Microfinancing is generally not offered directly by international assistance agencies, however, but via Microfinance Institutions (MFIs), which themselves receive money from the donor agencies. To identify local MFIs, a business could start by asking local representatives of national and international agencies. Another place to look would be through networks of MFIs that exist at regional, national and international levels. For a comprehensive list of MFIs, an excellent resource is The Microfinance Gateway, which is described in the Resources section.

### ***Biodiversity Enterprise Funds***

A Biodiversity Enterprise Fund is a fund that provides financing and technical assistance to businesses that protect biodiversity in the course of offering their goods and services (Conservation Finance Alliance, 2002). Examples of businesses that involve the protection of biodiversity include companies that sell products collected sustainably from natural forests, such as Brazil nuts, as well as ecotourism businesses that require the protection of nature in order to attract tourists.

Biodiversity Enterprise Funds originated from the concept of “venture capital” funds, which are funds devoted to financing high risk start-up businesses with an expectation of high returns. While businesses that benefit biodiversity may not generate high returns when measured solely on a financial basis, a growing number of specialized venture capital funds focused on sustainable economic development consider environmental and social returns important. The goal of these Biodiversity Enterprise Funds is to provide the same funding opportunities and start-up assistance to environmentally-friendly businesses that have existed for years for high-tech companies in industrialized countries.

To qualify for financing, the business plan must meet the economic, social and environmental standards

set forth by the fund. In general, an ecotourism business has a good chance of meeting this criteria. A list of some of the funds that have financed ecotourism businesses is shown in Box 6.2.

### **Non-Financial Support**

Ecotourism businesses may also gain some assistance through non-financial support, such as the donations of materials, professional services or volunteer labor (Alberta's Watchable Wildlife, 1993). Some organizations like the Canadian Executive Service Organization (CESO) and ACDI/VOCA provide the services of experienced business professionals to assist in project planning or operational reviews (see the Resources section for details). Other programs, such as the Earthwatch Institute, provide volunteers for specific scientific studies that may be useful in the development of an ecotourism project.

#### **Box 6.2 Biodiversity Enterprise Funds**

##### **EcoEnterprises Fund**

A \$6.5 million investment fund that invests in eco-enterprises at all stages of development with sales revenues up to \$3 million. Investment size ranges from \$50,000 to \$780,000, with an average investment of \$325,000. The Fund will finance up to 50 percent of project costs, using a variety of equity and debt instruments.

<http://www.ecoenterprisesfund.com/>

##### **Ecologic Enterprise Ventures, Inc.**

Provides financing for eco-enterprises in environmentally-sensitive areas in Latin America that support activities fostering biodiversity conservation and grassroots economic development. Offers loans ranging from \$25,000 to \$400,000.

<http://www.ecologicventures.org/>

##### **New Ventures**

Connects environmental entrepreneurs seeking capital in the range of \$100,000 to \$3 million with investors in fast-growing sectors such as ecotourism, clean technologies, non-timber forest products and organic foods and fibers.

<http://www.new-ventures.org/>

##### **Verde Ventures**

A \$6 million investment fund managed by Conservation International (CI). The fund provides debt and equity financing of \$100,000-\$500,000 to small and medium-sized enterprises that are important to biodiversity conservation in CI's priority areas.

<http://www.conservation.org/xp/verdeventures>

### **Conclusion**

An ecotourism business has a wide range of options when seeking financing, including the traditional methods of self-financing, seeking local and outside investors and commercial loans. By working with an NGO during the financing process, the business opens itself to a broader range of options, such as grants from donor organizations and Biodiversity Enterprise Funds. In addition, interaction with the NGO during this process provides the opportunity for the NGO to improve the quality of the ecotourism service and develop a more productive relationship with the business going forward.

The financing process is not only a necessary ingredient for starting a business, it is also an important part of what determines its success. Unless a new business can afford to invest in the marketing and the quality of infrastructure needed, the business will not be able to attract or retain customers and prosper. The mix of equity versus debt financing also impacts the business in terms of the size of the loan payments it must make and the amount of control the participants give up to outside investors.

Although raising more favorable financing by contacting aid organizations and applying for special programs may take more time, it will ultimately be less time consuming than starting a business with inadequate financing that causes it to fail. By working with partners, and completing a comprehensive feasibility study and business plan, the ecotourism business will be well on its way to generating enough income to be both an environmentally and financially sustainable business.

### **References**

- Alberta's Watchable Wildlife. 1993. *Developing your wildlife-viewing site*. Alberta Environmental Protection, Community Development, Economic Development and Tourism, Edmonton, Alberta.
- Conservation Finance Alliance. 2002. *The conservation finance guide*. <http://guide.conservationfinance.org>
- Sanders, E. and E. Halpenny. 2001. *The business of ecotourism: A survey of ecotourism economics and finance*. N. Bennington, Vermont: The International Ecotourism Society.

## Resources

### ACDI/VOCA

[www.acdivoca.org](http://www.acdivoca.org)

An international development nonprofit providing technical assistance on a volunteer basis in cooperative development, business, finance and other organizational needs.

Bayon, R. Beyond the dotcoms. *Environmental Finance*. October 2000.

Burnett, V. Put your ethics to work. *Financial Times*. May 13, 2000.

### Canadian Executive Services Organization (CESO)

[www.ceso-saco.com](http://www.ceso-saco.com)

CESO's mission is to transfer Canadian expertise to businesses and organisations in less developed countries to help them achieve their goals of economic and technical self-sufficiency.

### Convention on Biological Diversity: Funding Sources

[www.biodiv.org/financial/sources.asp](http://www.biodiv.org/financial/sources.asp)

A listing of bilateral and multilateral donor agencies which provide funds for biodiversity related projects. The Convention on Biological Diversity is an agreement between the vast majority of the world's governments which sets out commitments on the conservation and sustainable use of biological diversity.

### EnterWeb

[www.enterweb.org](http://www.enterweb.org)

An annotated meta-index and information clearinghouse on enterprise development, business, finance, international trade and the economy in the new age of cyberspace and globalization.

Hawkins, D., M. Epler Wood, and S. Bittman, ed. 1995. *The ecolodge sourcebook for planners & developers*. N. Bennington, Vermont: The International Ecotourism Society.

Honey, M. 1999. *Ecotourism and sustainable development: Who owns paradise?* Washington D.C.: Island Press.

### The Inter-American Development Bank: Contact Information by Country

[www.iadb.org/mif/v2/contact.html](http://www.iadb.org/mif/v2/contact.html)

This site provide contact information for each of the country offices of the Multilateral Investment Fund (MIF), a fund of the Inter-American Development Bank (IDB) supporting private sector development. The Inter-American Development Bank supports economic and social development in Latin America and the Caribbean.

### The Microfinance Gateway

[www.microfinancegateway.org](http://www.microfinancegateway.org)

A public forum for the microfinance industry that offers a resource center on specific topics in microfinance with over 700 listings of microfinance institutions (MFIs). The Gateway is managed by the Consultative Group to Assist the Poor (CGAP), a consortium of 29 international donors that support microfinance.

Millard, E. 2003. *Business planning for environmental enterprises: A manual for technical staff*. Washington D.C.: Conservation International.

### Programa Biocomercio Sostenible (The BIOTRADE Initiative)

[www.humboldt.org.co/biocomercio/index.htm](http://www.humboldt.org.co/biocomercio/index.htm)

Contains online business planning resources designed to enhance investment and trade in biodiversity-based products and services that use sustainable criteria.

### Small Business Finance Guide

[www.sba.gov/financing/basics/basics.html](http://www.sba.gov/financing/basics/basics.html)

An online guide of the U.S. Small Business Administration to financing a small business including steps and terminology, e.g., how to write a loan proposal, etc.

## Glossary

**Assets:** Anything that a business owns that will benefit future operations. Assets can be tangible items (e.g., buildings, canoes, equipment) or intangible things (e.g., intellectual property in the form of a patent).

**Break-even Point:** The amount of sales that will cover all the fixed and variable costs of operating the business. A business must sell at or above this level or else it will lose money. It is important to estimate the break-even point for planning purposes in order to know, for example, how many overnight visitors are needed in order for the business to cover its costs.

**Budget:** A projection of revenues and expenses over a period of time that serves as a foundation for the business planning process. It is important that a budget capture as many of the expenses as possible in order to anticipate the total costs and revenue.

**Cash Flow:** The movement of money into and out of an ecotourism business, including the money as it is collected from customers and expenses as they are paid to employees and suppliers.

**Collateral:** The security given to a bank to ensure that a loan is repaid. Some examples of assets that may be used as collateral with lenders are buildings, vehicles or boats. Land is often not acceptable as collateral for loans for ecotourism organizations because it might be difficult to resell.

**Community:** Community refers to a heterogeneous group of people who share residence in the same geographic area and access a set of local natural resources. The degree of social cohesion and differentiation, strength of common beliefs and institutions, cultural diversity and other factors vary widely within and among communities (Schmink, 1999).\*

**Community Stakeholder Analysis or Human Context Analysis:** This is a study that identifies key information about communities near an ecotourism site pertinent to ecotourism development within the community and in the adjacent ecotourism site. It is essential for full implementation of an Ecotourism Management Plan.

**Competitive Advantage:** The characteristics of an organization that allow it to be more successful in selling and delivering an ecotourism experience than competing businesses. Examples include exclusive access to protected areas, the skills of key personnel or having a name that is more widely recognized by tourists.

**Competition Analysis:** An analysis performed during business or market planning to determine the organizations, services or activities that may compete for customers. The analysis should identify the strengths and weaknesses of potential competitors and help identify positioning strategies that can differentiate the business.

**Concession:** An agreement between protected area managers and a private sector business that authorizes the business to offer ecotourism services such as accommodations, restaurant services or the sale of souvenirs within a protected area in exchange for a fee or percentage of sales.

**Concessionaire:** The provider of a concession service.

**Conservation Area Planning (CAP):** A process developed by The Nature Conservancy that is used to identify primary conservation targets for a particular conservation site, then determine the major threats, sources of threats and strategies for mitigating those threats. Previously known as Site Conservation Planning (SCP).

**Credit:** The provision of funds, such as a loan, which need to be repaid in the future. Sources of credit for ecotourism businesses might include commercial banks, aid organizations, and specialized venture capital firms.

**Debt Financing:** Refers to raising money to start or expand an ecotourism business by taking out loans that have to be repaid over time. This method of financing requires that a business make regular loan payments, which may be difficult when a business is first starting.

**Depreciation:** An expense that reflects the use of an asset over its life span. For example, the depreciation expense of a bed can be calculated by dividing the cost of the bed by the number of years it can be used. Depreciation expenses are important to

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\* Schmink, M. April 1999. *Conceptual framework for gender and community-based conservation*. MERGE Case Study No. 1. Gainesville, FL: University of Florida.

consider to ensure that the business generates enough revenues to cover operating expenses as well as future replacement costs.

**Ecotourism Advisory Committee:** A group of private and public stakeholders who have an interest, economic or otherwise, in the efficient and effective functioning of the ecotourism program at the ecotourism site. They will provide advice and support to the Head of the Ecotourism Program.

**Ecotourism Management Plan (EMP):** A specific plan directed at guiding the development of ecotourism in a specific site/protected area. It should follow from larger scale plans such as a General Management Plan or Site Conservation Plan.

**Ecotourism Site:** A location, large or small, where ecotourism activity or activities occur. In this document, may be used interchangeably with "protected area" or "site." However, site usually refers to a location where the activity is focused and is small in extent.

**Equity Financing:** Ownership interest in a business. Equity financing refers to collecting money from investors in exchange for partial ownership in the form of stock or shares in the business. Investors are entitled to a share of future profits and control of business decisions in proportion to the amount they invest.

**Financing:** Money raised by an ecotourism business to start or expand the business in a way other than through sales. Financing can be obtained through traditional means, such as seeking investments or bank loans, or by pursuing special opportunities that may exist for ecotourism, such as grants from donor organizations.

**Fixed Costs:** The expenses of an ecotourism business that do not change with the number of visitors, such as rent for an office building or the salary of permanent staff.

**Full Site Diagnostic:** A phase of the planning process during which planners gather the information needed to make good decisions regarding, in this case, ecotourism development in the protected area/ecotourism site.

**General Management Plan (GMP):** A planning document that evaluates all the information available for a given protected area or ecotourism site and defines overall management objectives, goals and strategies. If ecotourism is identified as a strategy for appropriate management, then an Ecotourism Management Plan is recommended.

**Gross Profit:** The amount of revenue that exceeds variable expenses. This is an important measure of operating efficiency, but because it does not include the other costs of operating the business, such as fixed costs, it provides only part of the financial picture when analyzing a business.

**Inbound Tour Operator:** A tourism operator who organizes the services provided to a visitor within the country being visited.

**Industry Analysis:** Performed during the early stages of a feasibility study or business plan to determine the conditions and

sales potential of tourism in the region. The analysis will often include a review of macro elements, such as a region's economic or political situation, and micro elements, such as programs being offered by local tourism organizations.

**Liability:** The financial obligations of a business which must be paid over a set period of time. Examples include debt, such as bank loans, credit from suppliers and taxes owed.

**Limits of Acceptable Change (LAC):** A methodology for measuring specific visitor impacts by establishing indicators and standards applicable to specific situations. A standard indicates a specific level beyond which stakeholders have determined that an impact is unacceptable and management action must be taken.

**Market Segments:** A group of tourists that share common characteristics that can be the focus of specific promotional methods. Some characteristics commonly used to segment customers are: demographics, geographic origin, motivations, interests, or membership in specialty and conservation groups. An example of a market segment might be birdwatchers interested in seasonal migrations.

**Marketing:** The broad range of activities in which a business engages to reach its sales goals. Marketing includes making decisions on what ecotourism products to offer, who the potential customers will be, the price to charge, what positioning strategy to use, and how to promote the products.

**Nature Tourism:** Tourism directed primarily at natural features but that does not necessarily embrace the concepts of ecotourism: low impact, economic benefits for conservation and local people, and education.

**Outbound Tour Operator:** A tourism operator who organizes tours and transportation for visitors who are going to another country, and who usually partners with an inbound operator in the destination country.

**Owners:** The people or organizations that hold a legal interest in a business. In a sole proprietorship, the owner is the proprietor. In a corporation or cooperative, the owners are those people who have purchased shares.

**Partner:** Individuals or organizations working together in an activity. The term partner can also have a legal definition that specifies duties and obligations when used in the context of a partnership business structure.

**Positioning:** The process of making an ecotourism product or service attractive to a particular type of customer or market segment. Positioning involves distinguishing the business on the basis of price, location, customer service, quality or other features that are unique compared to the competition.

**Preliminary Site Evaluation (PSE):** A process consisting of a few basic questions by which planners can determine whether a particular site is appropriate for ecotourism development.

**Profit:** The money remaining after all expenses have been subtracted from the ecotourism revenue, including fixed costs, variable costs, depreciation expenses, interest payments and taxes. This is sometimes referred to as “the bottom line” in for-profit ventures. In the long run, a business must make a profit in order to survive.

**Promotion:** An activity that raises awareness or makes an ecotourism service more attractive to potential customers. Common promotional activities include: newspaper advertising, listings in travel directories, an Internet web site, and trade shows. Promotions also include offering discounts or packaging an ecotourism service as a single product with airfare or transportation expenses.

**Protected Area:** A large, legally-protected expanse of territory, usually administered by a government entity with specific conservation objectives, but whose day-to-day management may be delegated to the private sector or a coalition of government and private interests.

**Return on Investment (ROI):** The increase in value of an owner’s investment in an ecotourism business. Owners expect the value of their ownership to increase by a certain amount each year. The return is the percent increase above the initial amount the owner invested.

**Risk Management:** The process of managing the risks inherent in an ecotourism business. This includes designing a management plan that identifies risks and steps for reducing them, having appropriate insurance, and selecting a corporate structure that protects the owners against law suits.

**Site Plan:** A very detailed drawing that locates all significant natural and cultural features of a site where intensive ecotourism activity will take place and then determines where infrastructure will be located.

**Stakeholders:** Social actors who have a direct or indirect involvement in an activity that affects the biodiversity systems of a site. This involvement may arise from geographical proximity, historical association, economic activity, institutional mandate, social interest, cultural traditions or a variety of other reasons.

**Stakeholder Analysis:** The TNC stakeholder analysis prioritizes stakeholders linked to critical threats and profiles a number of key characteristics about the activities in which stakeholders are engaged.

**Sustainable Development:** Defined by the United Nations Brundtland Report “Our Common Future” as “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

**Target Markets:** The market segments that an ecotourism service and its marketing programs are intended to serve. In order to reach the target market, a tailored marketing approach must be developed. It is important that the business expects to be able to attract sufficient numbers of tourists from this target market to make the segment financially worthwhile.

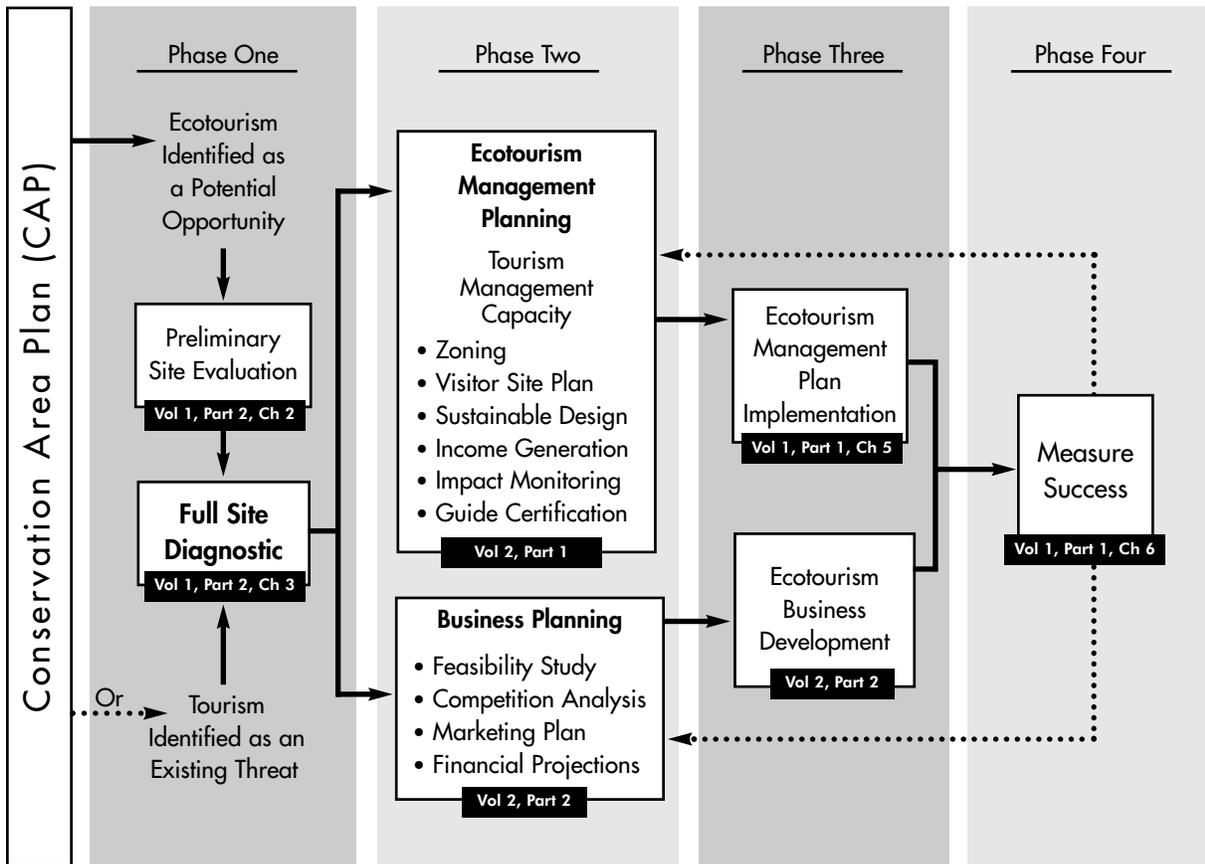
**Variable Costs:** The expenses that change, such as food or supplies, depending on the number of customers served by an ecotourism business.

**Value Chain:** The chain of organizations that connect ecotourism customers in the target market (such as in the United States) with the ecotourism experience in the destination country. For example, the chain could include the U.S. travel agent, U.S. outbound tour operator, the inbound tour operator and local ecolodge service provider, which each provide value and charge a fee to the customer.

**Visitor Site:** A relatively small location where intensive use and management occurs within a larger ecotourism/conservation context.

**Zoning:** Zoning is a mechanism for assigning overall management objectives and priorities to different geographic areas (zones) within a protected area or other ecotourism site. By assigning objectives and priorities to these zones, planners are also defining what uses will or will not be allowed. These parameters are usually based upon the characteristics of the natural and cultural resource base, protected area objectives, and other factors.

**Figure 7 Diagram of the Ecotourism Management and Development Planning Process Showing the Chapters Pertaining to Each Step**



This diagram summarizes the steps involved in the ecotourism management and development planning process and lists the chapters pertaining to each step. 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. Note: This diagram also appears in the text on page 62