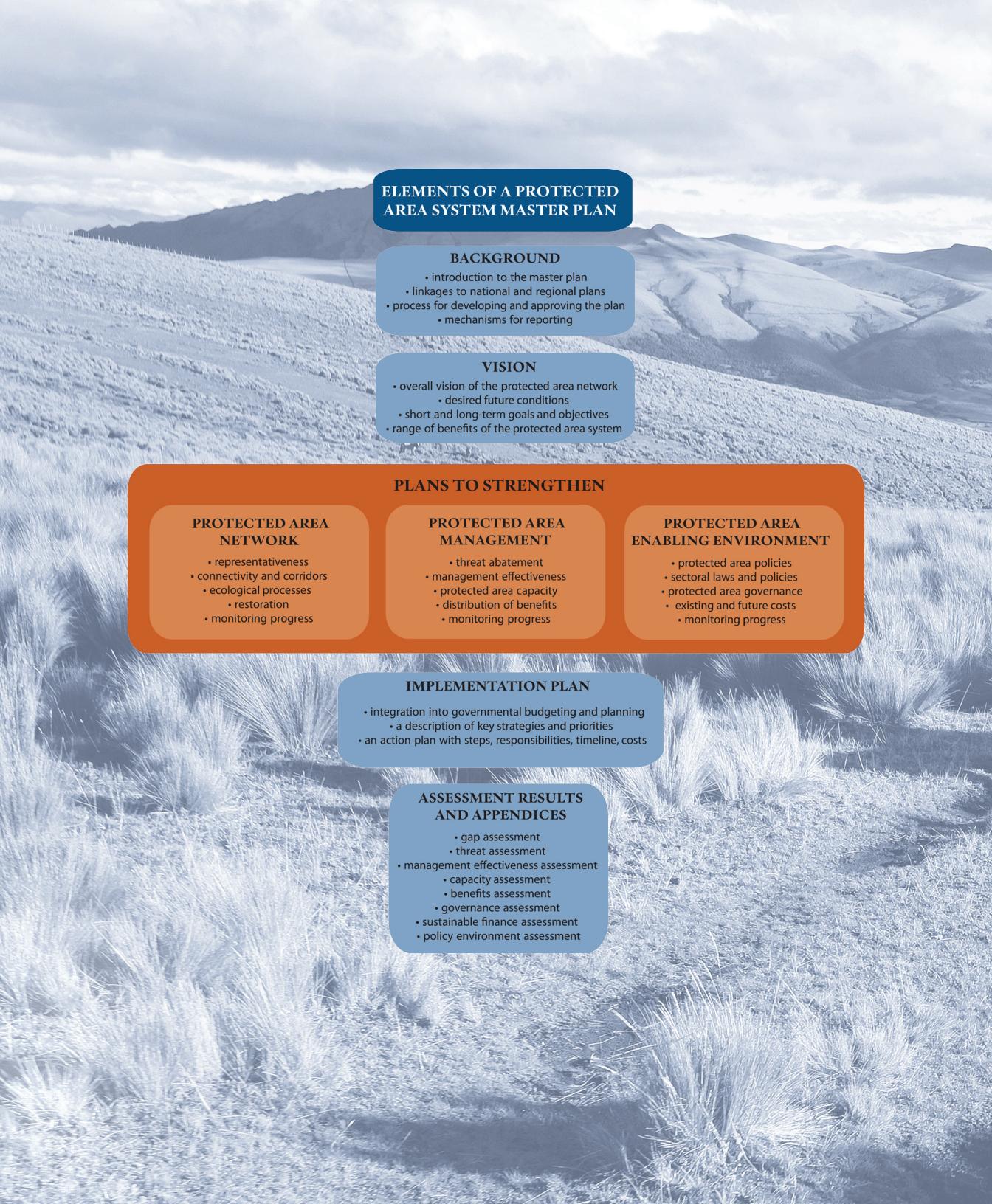




The Threshold of Sustainability

for Tourism within Protected Areas:

A Quick Guide
FOR PROTECTED AREA PRACTITIONERS



ELEMENTS OF A PROTECTED AREA SYSTEM MASTER PLAN

BACKGROUND

- introduction to the master plan
- linkages to national and regional plans
- process for developing and approving the plan
 - mechanisms for reporting

VISION

- overall vision of the protected area network
 - desired future conditions
- short and long-term goals and objectives
- range of benefits of the protected area system

PLANS TO STRENGTHEN

PROTECTED AREA NETWORK

- representativeness
- connectivity and corridors
- ecological processes
 - restoration
- monitoring progress

PROTECTED AREA MANAGEMENT

- threat abatement
- management effectiveness
- protected area capacity
- distribution of benefits
- monitoring progress

PROTECTED AREA ENABLING ENVIRONMENT

- protected area policies
- sectoral laws and policies
- protected area governance
- existing and future costs
 - monitoring progress

IMPLEMENTATION PLAN

- integration into governmental budgeting and planning
 - a description of key strategies and priorities
- an action plan with steps, responsibilities, timeline, costs

ASSESSMENT RESULTS AND APPENDICES

- gap assessment
- threat assessment
- management effectiveness assessment
 - capacity assessment
 - benefits assessment
 - governance assessment
- sustainable finance assessment
- policy environment assessment



Introduction

The demand for nature-based tourism has sharply increased over the past decade, and the UN World Tourism Organization projects that this growth will continue into the next decade and beyond (UNWTO, 2010). Natural ecosystems, from the highest mountain forests to coral reefs, from Antarctica to Siberia and the Amazon to the Serengeti, are attracting more visitors than ever before. This growth can provide a range of potential benefits, including increased revenues for improving natural resource protection, contributions to economic development, the creation of local jobs and opportunities for research and education. By providing these benefits, nature-based tourism can also create a constituency for support among local communities, the tourism industry, and visitors, which can in turn result in greater political and financial support for protected area objectives.

This burgeoning demand presents an enormous, largely unfulfilled opportunity for protected areas to generate funds for conservation. However, nature-based tourism also brings costs and threats to natural capital in protected areas, thereby undermining the long-term benefits of their protection and management. The natural capital of a protected area is the entirety of its natural ecosystems including physical attributes and biodiversity. This natural capital yields a flow of valuable ecosystem goods or services such as water catchment, erosion control and recreational opportunities. Tourism has been identified as a threat in many protected areas across Latin America and the Caribbean (Drumm et al., 2007). For example,



UNESCO cited uncontrolled tourism in the Galapagos Islands National Park as a reason for its addition to the *World Heritage in Danger* list in 2009. Visitor congestion in Ngorongoro and other East African protected areas has led to the disruption of mammal behavior, threatening these areas' long-term integrity and diminishing the overall quality of the visitor experience. In order to fully realize the benefits of tourism, urgent action is required to mitigate and prevent the tourism-related threats that erode natural capital and, thereby, the long-term social and economic benefits it offers.

In many protected areas around the world, the existing approach to tourism management in protected areas is leading to irreparable damage to natural capital. This Quick Guide introduces a tourism management framework called the "*threshold of sustainability*." It is designed to enable managers to take rapid action to mitigate the most critical threats, while beginning to lay a solid financial foundation for tourism within protected areas. By improving tourism management, protected area planners will simultaneously achieve many of the actions included in the Convention on Biological Diversity's Programme of Work on Protected Areas, including preventing and mitigating protected area threats, using protected area benefits to reduce poverty, developing sustainable finance mechanisms, strengthening management capacity, and improving overall management effectiveness.



Contents

Introduction.....	3
Nature-based tourism in protected areas: an opportunity and a threat	6
The threshold of sustainability in tourism management.....	9
Step 1: Identify threatened natural capital, key threats, and key management issues	11
Step 2: Identify efficient actions to address critical tourism-related threats.....	16
Step 3: Assess tourism finances in the protected area.....	19
Step 4: Assess the broader enabling environment.....	26
Step 5: Develop and implement a communications strategy	28
Step 6: Implement actions and monitor results.....	30
Key lessons learned.....	33
Case study: Ecuador.....	35
Case study: Dominican Republic.....	38
References.....	40



nature-based tourism in protected areas: an opportunity and a threat



Tourism is one of the principal objectives of many protected areas, and is one of protected areas' most valuable contributions to human wellbeing. However, tourism is increasingly becoming a threat to biodiversity and the benefits of natural capital. Aquifers become depleted, reefs, lakes and rivers become polluted with untreated sewage, migratory bird habitats are lost to infrastructure, and wildlife is disturbed. Together with increased congestion, these negative impacts may diminish the quality of the visitor experience, and may jeopardize tourism's potential to contribute significantly to the conservation of natural capital within protected areas.

At the same time, tourism is largely failing to achieve its potential for generating financial benefits for protected area systems. Even where protected areas have established mechanisms for generating revenue, and fees are close to fair market value, those revenues are infrequently reinvested in even minimal protected area management. Consequently, the potential of protected area-based tourism to contribute to economic development is undermined.

Protected area systems face a critical situation in which policy makers increasingly promote tourism within protected areas even while managers lack the basic capacity to manage the impacts of current visitor numbers. At the core of this dilemma is the concept of a "*threshold of sustainability*." This is the point at which the management capacity of a protected area is sufficient to mitigate the most critical tourism-related threats, such that public use is limited to the parameters of sustainability of the natural capital within the site.

This threshold is reached by ensuring that protected area managers have a minimum annual operating budget to maintain a critical level of specific tourism management activities. A central idea to the concept of the threshold of sustainability is that in order to address the growing

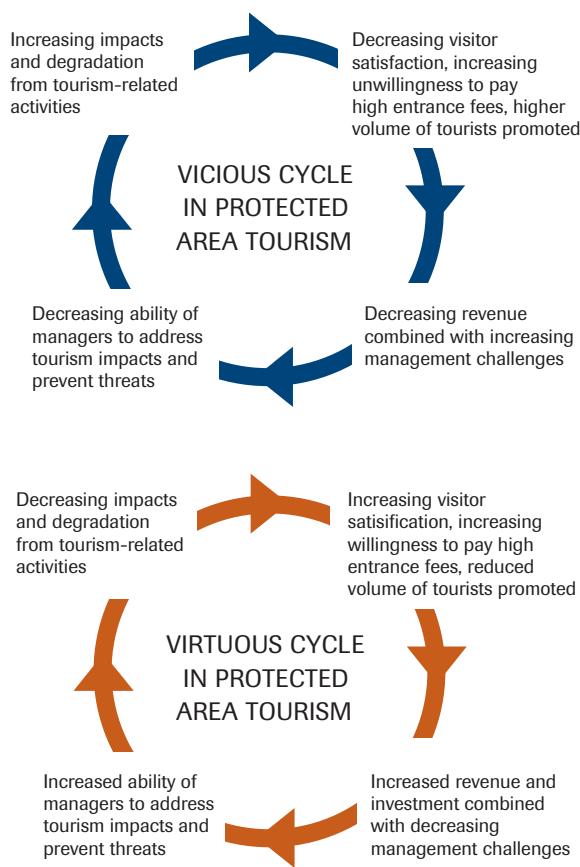
threats from tourism, managers must identify these threats and develop effective ways to address them, while policy makers must create an enabling environment in which tourism generates the necessary level of funding for effective management. Once the threshold of sustainability is reached, tourism can begin to realize its enormous potential benefits to communities, to local economies, and to the protected areas themselves.

This approach can be applied in situations where a long-term tourism management plan does not exist, where a plan exists but fails to address tourism adequately, or where a plan exists, but is not implemented.

The aim of this Quick Guide is to provide protected area managers with a framework for responding rapidly to crises originating from tourism and visitation. They will do this by shifting existing resources to facilitate short-term interventions that establish specific tourism management capacities, and through short- to medium-term actions that optimize the flow of tourism spending in protected areas.

The framework is designed to help managers identify and characterize the threats that place natural capital at risk, develop strategies for investment in tourism management, monitor their effectiveness, and estimate their financial costs and requirements for implementation. This approach is not intended to replace long-term tourism management planning, but rather to help initiate it. It is intended to enable rapid action to address critical existing threats in the short term, while also allowing protected area managers to develop the skills, experience and financial capacity needed to make longer term planning more effective. The Ecotourism Development Manual series (Drumm and Moore, 2005) published in the TNC/USAID Parks in Peril program provides comprehensive guidance on full-scale tourism management planning for protected areas.

The threshold of sustainability is about putting in motion a feedback loop for tourism, visitor satisfaction, investment and management capacity that creates a “virtuous cycle.” An appropriate initial investment in basic tourism management capacity leads to effective management



practices that will sustain the natural capital that visitors come to see, creating a more robust and viable tourism sector, as well as generating revenues that are reinvested into protected area management. Higher levels of visitor satisfaction promote demand and allow park managers to charge adequate park entrance fees, and to continue to invest in management capacity.

When there is inadequate investment in visitor management, a ‘vicious cycle’ is set into motion. In this scenario, tourism-related activities degrade natural capital, leading to decreased visitor satisfaction. This leads to either lower prices or fewer visitors. As a result, revenues are likely to decrease, as well as investment in management, which in turn will lead to even more degradation and further decline in visitor satisfaction.

The threshold of sustainability approach to addressing tourism-related threats within protected areas is about identifying the minimum level of investment required to achieve the management capacity sufficient to set in motion the “virtuous cycle,” and to reverse the “vicious cycle” in protected area-based tourism.



the threshold of sustainability in tourism management



The *threshold of sustainability* framework enables protected area managers to define the minimum amount of investment in tourism management capacity that is needed in order to ensure the health and viability of biodiversity and other natural capital, and to maintain high quality tourism experiences within a protected area. While tourism and public use management are generally included in most PA management plans, less than a third of all protected areas globally even have a management plan (Ervin et al., 2010). Even when there is a tourism or public use component in the management plan, it is frequently underfunded and impractical. Park managers and staff often lack the appropriate skills and experience to implement visitor management plans. Consequently, tourism is increasingly identified as a key threat in a large majority of protected areas worldwide (Leverington and Hockings, 2008; Drumm et al., 2007). The *threshold of sustainability* framework provides a fast and relatively simple approach that enables planners to halt the erosion of natural capital and facilitate the long-term sustainability of nature tourism in protected areas, even in the absence of a full management plan.

The *threshold of sustainability* framework is derived from a set of actions that are widely adopted by NGOs and governments alike, called the “Open Standards for the Practice of Conservation.” This cycle includes defining key threats, identifying appropriate strategies, implementing these strategies, using the results to adapt and improve, and learning from the process (CMP, 2007). It is also an approach that integrates a financial rationale at the outset, enabling decision makers to better understand the financial implications of the existing management practices, and to contrast these with the financial potential of establishing a model based on sustainable ecosystem management (Flores, 2010).



The basic components of the *threshold of sustainability* framework include both conservation management and financial analysis. Protected area managers rarely address these two components in an integrated fashion. They often come from a forestry or biology background and do not necessarily have the skills for financial analysis, while financial managers and accountants rarely comprehend the realities of conservation management. The lack of integration of management and finance lies at the heart of the problem of tourism-based degradation within protected areas. Depending on the resources and time available to a protected area manager, the *threshold of sustainability* can be applied in either a streamlined, rapid assessment and response mode, or in a longer two-year time frame that will include a greater level of financial analysis and stakeholder engagement.

The components of the threshold of sustainability concept include:

- **Step 1: Identify threatened natural capital, the most critical tourism-related threats, and key management issues:** Identify threatened, tourism-related conservation objectives, the impact that tourism and other threats are having on them, and identify the extent to which protected area staff are able to prevent and mitigate these threats.
- **Step 2: Identify efficient actions to address critical tourism-related threats:** Identify which strategies will be most effective at addressing tourism-related threats.
- **Step 3: Assess tourism finances in the protected area:** At a minimum in the rapid response mode, identify the financial gap between existing and required funds and identify potential revenue sources and financial mechanisms. If resources and time permit, then begin to build the financial case for increasing funds available for protected area management by also estimating the economic impact of tourism on the destination, and identifying potential complementary opportunities, such as tourism concessions and co-management opportunities.
- **Step 4: Assess the broader enabling environment:** Assess the legal, regulatory, institutional, administrative and policy environment and assess the extent to which this environment enables effective management of tourism within protected areas. This should be done to different extents in both the rapid response and long-term planning situations.
- **Step 5: Develop and implement a communications strategy:** Although communication and participation is important at every point of the *threshold of sustainability* framework, accumulation of the breadth of information in Steps 1-4 requires development of a formal communications strategy to help win the support of key audiences and change policies.
- **Step 6: Implement actions and monitor results:** Establish basic infrastructure and capacities needed to 1) achieve minimum management effectiveness, 2) implement new funding mechanisms, and 3) monitor results, including the impact of threats, the status and trends of biodiversity health, community benefits, and the effectiveness of management interventions.

step 1:

identify threatened natural capital, key threats, and key management issues



Identify conservation objectives and tourism attractions that are threatened

Understanding threats requires an understanding of the key aspects of the natural capital of the protected area that are being affected. These may have socio-cultural importance, such as a view of a natural monument or waterfall, or an archeological site; they may have ecological importance, such as a species, critical habitat for migratory birds, a natural community, ecosystem, or ecological process; or they may have economic importance, such as an ecosystem service including drinking water or fisheries. Key features to consider are those that are important to achieving the overall protected area objectives and to maintaining a high quality visitor experience. Sometimes these may overlap, but often they do not. For example, tourism-related activities could affect the habitat of endangered species that are not well-observed or important to the majority of visitors, but are very important to the protected area objectives. Similarly, tourism-related activities could result in trail-side litter which may have a low ecological impact, but will have a significant impact on visitor experiences. It can be very helpful to consult with an experienced guide or tour operator when evaluating the impacts of threats on visitor experience, as well as to review visitor comments and complaints.

Identify key tourism-related threats

In identifying tourism-related threats, the first step is to understand and describe the activities that are causing the threats and the motivation for the activities. Tourism-related threats include threats that are caused by individual and group tourist behavior (such as riding motorized vehicles in sensitive wetlands or arid lands), by the broader tourism industry (such as buildings and overuse of aquifers), and by tourism policies (such as the number of tourists who are allowed to visit sensitive areas).



After identifying the most critical tourism-related threats to these conservation objectives, the next step is to rank them on a scale of 1 to 5, and then repeat the process for threats to the visitor experience. The latter can be easily identified through informal consultation with tour operators or experienced guides, and through reference registers of visitor comments or complaints. In assessing ranks, it may be useful to consider compatibility of the activity with management objectives, the severity of the threat, and how extensive it is. The highest ranked threats will be the ones you will want to address most urgently.

In order to fully understand tourism-related threats, it is useful to know how many visitors there are, where they come from, when they come, why they come, how much they spend, what they spend it on, and how satisfied they are with their experience. These data can be gathered through visitor surveys. A local university can often be engaged to help with design and implementation of the survey.

Depending on the scope of the assessment, managers may also want to consider external threats to key features that are important for tourism within protected areas. For example, inappropriate forest harvesting within a protected area (e.g., through concessions or by a forestry department) can have significant impacts on tourism. While many such threats may be beyond the scope of protected area managers to address, including them in the analysis will provide a more comprehensive evaluation and facilitate future planning.

Part of identifying and understanding threats is identifying their underlying root causes – the drivers that cause or contribute to the threats. For example, inadequate trash disposal and waste facilities can result in trailside litter, inappropriate concession policies can contribute to illegal use of motorized vehicles, and inappropriate hotel policies can contribute to excessive light, air and water pollution that can disrupt wildlife (such as migratory bird habitat), damage ecological processes, and degrade the tourism experience.

Participation in this process of tour operators who depend on the resource for their business success is useful, for example by creating a small team including a protected area manager and a tourism operator.

The figure (on the next page) shows a simple way to conceptualize the diverse natural capital and tourism-related threats that can occur within a protected area – both to conservation objectives and to tourism attractions themselves – and provides examples of each, including threats that are driven by tourist behavior, and by inappropriate tourism infrastructure and policies.

TOURISM-RELATED THREATS	
TOURIST BEHAVIOR	TOURISM INFRASTRUCTURE, POLICIES
ATTRACTIONS IMPORTANT for high quality visitor experience	<ul style="list-style-type: none"> Quiet natural experience: Noise pollution (e.g. from motor vehicles) Wilderness experience: Trailside littering Plant communities/habitat: Soil erosion from trampling Coral Reefs: Inappropriate diving and snorkeling Wildlife viewing: Inappropriate wildlife viewing practices (e.g., visitors are too close, too many, too loud)
CONSERVATION OBJECTIVES	<ul style="list-style-type: none"> Bird habitat: Excessive fuel wood consumption Vegetation: Trampling in sensitive ecosystems Coral Reefs: Inappropriate diving and snorkeling Bird nesting: Inappropriate wildlife viewing practices (e.g., visitors are too close, too many, too loud) Target species: Inappropriate feeding of wildlife, creating problem individuals Natural systems: Introducing invasive alien species through horses, hiking shoes, boats

Examples of different types of tourism-related threats

Identify key management issues

The next component of this step is to identify management issues that enable or even exacerbate threats and interfere with opportunities for improving management. There are numerous assessment tools to help managers identify management strengths and weaknesses at site and system levels (e.g., Ervin, 2003; Stolton et al., 2007).

For example, if a key tourism-related feature in a protected area is an extension of woodland that is critical habitat for the cerulean warbler, the manager might identify the critical threats as: 1) inappropriate siting of large hotels, creating noise and excessive light that disturbs roosting; and 2) inappropriate camping and outdoor recreational vehicle practices that disturb feeding. Each of these *threats* would have a suite of potential *management issues* associated with them.



For example, management issues related to inappropriate lighting on buildings may have to do with the lighting practices and policies of tourism infrastructure beyond the protected area boundaries. Management issues related to inappropriate camping and recreational vehicle practices have to do with poorly zoned public use areas, absence of trained tour guides, inadequate control and registration of tour operators, insufficient patrolling by park guards, or inadequate visitor education.

Each of these management issues can be addressed by a range of possible actions. However, to be strategic and efficient, and to focus on the minimum investment required to sustain tourism and biodiversity within protected areas, managers must rank the most important management issues — i.e., those that are causing the most harm.

CONSERVATION OBJECTIVE/ TOURISM-RELATED FEATURE	KEY TOURISM RELATED THREATS	MANAGEMENT ISSUES
SEA TURTLES (viewing them in the water, observing nesting behavior)	INAPPROPRIATE VISITOR VIEWING BEHAVIOR (too close to nests, use of lights to attract)	INADEQUATE PATROLLING
	JET SKIS (primarily to view sea turtles in the water)	NO VISITOR EDUCATION
	LIGHTING ON BUILDINGS (bright lights attract turtles)	NO AWARENESS-BUILDING OF HOTEL MANAGERS
	POACHING OF TURTLE EGGS (primary for local sale)	LACK OF INVOLVEMENT OF COMMUNITIES in livelihood opportunities
	INAPPROPRIATE FISHING (using nets that mistakenly catch sea turtles)	INSUFFICIENT COMMUNITY ENGAGEMENT

By identifying the most important tourism-related threats, the range of management issues and weaknesses for each, and the underlying causes for each of these weaknesses, managers can identify a small subset of the most important management weaknesses and underlying causes and actions that can address multiple threats. Typically these include: improving information, education and interpretation; better application of regulations and enforcement; better basic infrastructure; systematic monitoring of indicators; and sufficient staff numbers and capacities.

At the end of these initial three steps, the manager will have identified the important conservation objectives and tourism features that are threatened by tourism. He or she will also have identified the main tourism-related threats to these targets and features, and will have applied a simple ranking of their significance. S/he will also have identified specific tourism management issues that limit managers' actions to reduce threats.

This table shows another presentation of possible results, with rankings applied to the most critical threats and to the most important management weakness. For another example, see the end of the next section.

Conservation objective/ tourism feature	Tourism threats	Management issues
Migratory bird nesting area	<ul style="list-style-type: none"> • Trampling of vegetation by visitors (5) • Human waste (3) 	<ul style="list-style-type: none"> • No visitor information or interpretation program (5) • Lack of basic infrastructure (3)





step 2:

identify efficient actions to address critical tourism-related threats

As illustrated in the table at the end of this section, there will likely be a variety of actions and strategies for addressing each of the impacts and management issues identified. The key is to focus on the most cost-effective actions that are likely to have the greatest short-term impact in reducing or eliminating a threat. The minimum tourism management capacity to achieve the *threshold of sustainability* will consist of a variety of different types of interventions.

Information, education, and interpretation

Visitor experiences and their behaviors are highly dependent on the type, quality and delivery of appropriate information needed to appreciate and understand the protected area values and opportunities. Providing appropriate materials and delivering effective educational programs can affect how tourists behave and can reduce many tourism-related threats. Tour guides, hotel managers, park staff and community members can also be important audiences for education and outreach efforts. A variety of techniques can be used to modify visitor behavior and improve their experience. Examples include interpretive signs, brochures, visitor learning centers, t-shirts, tour guide trainings, tour operator guidelines, and community meetings.

Regulations and enforcement

Most protected areas have a suite of regulations that limit behaviors and uses. However, in many cases the policies, procedures and regulations are outdated, or do not reflect increases in the volume of tourism. If inappropriate policies are a leading contributor to tourism-related threats, then managers will need to revise and update the regulations. For example, new rules might be needed regarding the size of allowable tour groups based on an assessment of biophysical or social impacts, or the penalties for violations may need to be increased. Similarly, improvements may be needed in enforcement, including increased staff to patrol areas. Financial health can also be improved by controlling access more effectively and ensuring that staff are present and have the administrative tools necessary at access points when visitors arrive in order to collect fees.

Impact Monitoring and Management Action

The regular, systematic gathering of data on tourism impact indicators is essential for effective management. When identifying threats, managers are creating a set of baseline data against which future changes can be systematically monitored and measured; it is particularly important to monitor progress against the most critical threats identified by the *threshold of sustainability* approach, as these threats can rapidly get out of control. By evaluating the information generated by impact monitoring, it is possible to make effective interventions to reduce threats and improve conditions. Although planning processes often emphasize monitoring as the last step of a planning process, we propose that managers circle back to strategy development to be sure to include actions to implement monitoring.

A simple version of the *Limits of Acceptable Change* methodology (Stankey *et al.*, 1985; see also *Ecuador case study*) is recommended for most circumstances. This methodology involves determining desired conditions, establishing a small number of indicators and standards for those indicators, and then monitoring actual conditions regularly over time. If an initial management intervention (e.g., erecting signs to limit approaches to bird nesting areas) fails to bring the impact within the standard, then an additional or alternative intervention will be necessary (e.g., requiring visitors be accompanied by a licensed guide). Monitoring indicators need not be complex; often the simplest indicators are the most effective. Systematic monitoring provides a technical basis for decision making and thereby strengthens a protected area's management authority. This can be very important in the face of often strong resistance from private businesses and individuals, who may see their individual or collective benefits affected by the application and enforcement of tourism management strategies.

Infrastructure

Infrastructure – roads, trails, bridges, visitor learning centers, elevated pathways, drinking water, toilets, waste disposal sites, picnic areas, campgrounds and bird-watching platforms – can be an important tool for both improving visitor experiences and for reducing the impacts of tourism. In identifying strategies for improving infrastructure, managers should focus on the minimum infrastructure required to prevent a threat or minimize impacts. In developing infrastructure, managers will typically need to conduct an environmental impact assessment to ensure that the infrastructure itself does not exacerbate ecological impacts. Where possible, it is best to locate as much infrastructure as possible away from the attraction and outside the protected area.

Capacity building

Adequate numbers of trained, competent and confident personnel are required for a wide range of tourism management activities, including abating key tourism-related threats. Sometimes this means simply hiring more staff, and sometimes it means improving the capacity of existing staff. Specific capacities related to tourism management could include, for example, the enforcement of regulations, patrolling, community outreach and education, visitor-use planning, infrastructure planning, visitor education, and impact monitoring, among many others. There are a variety of strategies that managers can use to improve capacity, including study tours, short courses, independent study, short workshops, online e-learning tutorials, mentorships, and formal academic courses.

Safety, Security and Sanitation

A significant factor in reducing visitation to a site or area is lack of security and potential threats to a visitor's health. Managers need to be prepared for emergencies that may occur when tourists visit a site. In addition, managers may need a disaster plan, particularly for areas prone to flooding, high winds, and other similar natural phenomena. Finally, there is often a need for security to protect visitors from theft and other crimes.

Through this process, managers might develop a ranking of actions (perhaps by cost and effectiveness on threat) similar to that shown in the table. This type of analysis enables planners to quickly identify the actions that will reduce the threat most quickly, and those that are essential to develop over time. Because rapid action is necessary to limit critical threats quickly, it is important not to delay action until a full scale tourism management plan is prepared or revised. Planners

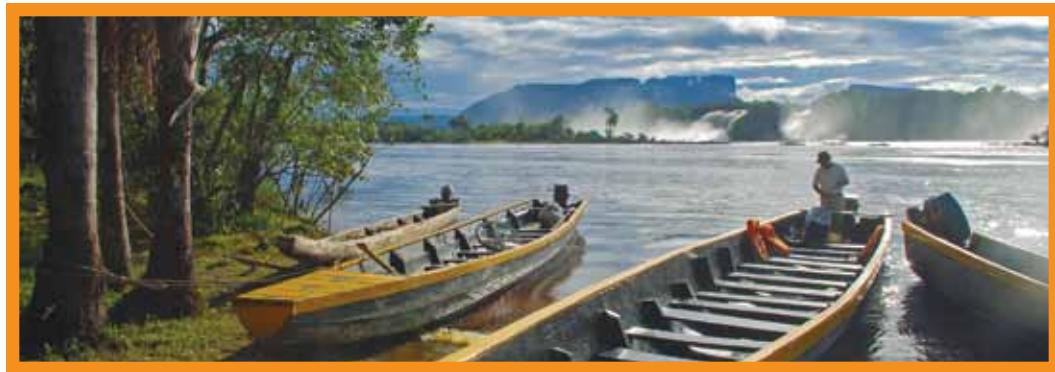


should prioritize those actions that can be taken at local level by reallocating existing resources without the need for lengthy consultation processes with system-level colleagues and stakeholders. More complex actions will need to be programmed in the following year's annual operating plan and budget as part of the annual planning process.

Tourism-related feature/ conservation objective	Key (high-ranked) tourism-related threat	High-ranked management issues	Prioritized actions (ranked 1 [high-cost, inefficient] to 5 [low-cost, efficient])
Sea turtles	Visitors approach nests and/or turtles too closely, disrupting nesting	<ul style="list-style-type: none"> Poorly-trained park guards Insufficient patrols Inadequate visitor education No trained local guides No interpretation program 	<ul style="list-style-type: none"> Train guards (5) Increase patrols to beach areas during nesting (3) Train local guides (4) Place signs between car park and turtle nesting area (5) Provide visitors with written guidelines and interpretation (5)
	Inappropriate fixed lighting on nearby hotels outside protected area, disrupting nesting	<ul style="list-style-type: none"> Inappropriate local zoning laws Lack of education in the community Inadequate dialogue with hotel owners 	<ul style="list-style-type: none"> Lobby Board of Supervisors to regulate lighting (1) Ask hotel owners bordering the area to change the location or frequency of lighting (5)
	Inappropriate portable lighting carried by tourists and guides disrupts nesting	<ul style="list-style-type: none"> Inadequate distribution of visitor guidelines 	<ul style="list-style-type: none"> Provide visitors with written guidelines and interpretation (5)
	Jet skis harass turtles	<ul style="list-style-type: none"> Lack of zoning of public use Poor enforcement of regulations No dialogue with local jet ski rental business 	<ul style="list-style-type: none"> Install marker buoys to delimit no jet ski area (4) Provide info at rental office (5) Withdraw permits from persistent rental business offenders (5)
Non-tourism threat affecting tourism			
	Communities poach turtle eggs	<ul style="list-style-type: none"> Insufficient number of park guards Inadequate education program for local community Limited flow of tourist spending to local community 	<ul style="list-style-type: none"> Hire and train more park guards, especially from local community (3) Implement monthly presentations in local community (4) Create tourism business opportunities for local community (4)
	Turtles die in fishing nets	<ul style="list-style-type: none"> Inadequate education program for local community 	<ul style="list-style-type: none"> Initiate community outreach education program to share appropriate technology (3)

At the conclusion of this step, the manager will have developed a series of actions to address the key threats and management issues, and will have prioritized them based on their expected short-term impact and according to availability of resources. Good cost estimation and budgeting is essential in this phase.

step 3: assess tourism finances in the protected area



There is growing evidence that protected areas are engines of job creation, providing public and private revenue and export income, and helping diversify local economies in often remote and underdeveloped areas (Drumm, 2010; Leon et al., 2009; Rodriguez et al., 2008). Tourism is often the single most important source of self-generated revenues for protected areas, creating employment and opportunities for large numbers of local people. However, policy makers often perceive protected areas as a burden on national economies. This perception has led to a severe governmental under-investment in protected areas. During annual budgeting cycles, it is job creation initiatives, industrial and agricultural development, health and education that receive the majority of limited public financial resources.

Credible financial and economic data that show how much protected area tourism is contributing to the financial sustainability of the park system, to local communities and to the economy as a whole is compelling information when seeking to change policy makers' attitudes toward protected areas. This information is even more powerful when contrasted with the low costs of maintaining protected area tourism.

This section outlines a series of steps involved in assessing the finances of tourism in protected areas. On completing this assessment, protected area managers and other policy makers will have the information needed to make a powerful case for increased investment in protected area tourism management and in protected area conservation generally.

Tourism's economic impacts can be assessed within three spheres: 1) the financial sustainability of the protected area or areas; 2) impacts on local communities and destinations; and 3) impacts on the national economy.

Making the financial case

The first part of making the financial case for increased investment in a protected area is to identify the current costs of tourism management. Although public use is often viewed as a basic protected area function, the range of costs it generates is frequently not understood thoroughly by protected area managers. Even basic tourism management strategies often do not appear as a line item on protected area budgets and are not included in annual operating plans. Often managers neglect to include these costs because they do not have technical expertise in tourism management, or because they believe that an increased investment in tourism management capacity is a lower priority than other basic protection activities.

Quantifying the cost of tourism management to the protected area site or system is often more challenging than might at first be imagined, simply because this information may not exist in one place. For example, there may be no tourism management budget per se, yet there are visitors, and tourism activities are taking place. The protected area is incurring expenses, such as collecting entrance fees, maintaining trails, collecting litter. These activities may often appear under different line items in park accounts, or be split between site budgets and system budgets.

The second part of making the financial case is to identify costs associated with potential actions and strategies, and to assess the financial gap between existing funds and the minimum required to achieve the threshold of sustainability. Once park managers have identified critical threats, management issues and the actions to address them, they will then need to determine the cost of these strategies. A financial specialist can work with park managers and system administrators to determine the costs of staff, equipment transport, food, and materials required to achieve the threshold of sustainability. This analysis will distinguish between operating costs (e.g., those costs that recur every year, such as staff time, fuel, food and materials) and capital costs (e.g., those costs that occur usually only once, such as vehicles, boats, computers and construction as well as restoration to acceptable levels of impact). Capital costs can be considered as an initial investment needed to achieve the threshold of sustainability. This can produce a result similar to this example from Peru:



From León et al., 2009

The two columns for each of four Peruvian protected areas illustrate the difference between current spending on tourism management, and the minimum level of spending required to achieve the *threshold of sustainability* in 2007.

Once a clear picture emerges of the financial gap between current expenditure and the minimum expenditure required to achieve the *threshold of sustainability*, there is a clear financial target to aim for. Funding will likely be required to cover initial capital investment costs, and also to cover the higher operating costs that are likely in the start-up period. Further funding will be required to cover operating costs on an ongoing basis, and newly-optimized tourism revenue generation mechanisms should be expected to at least cover these costs in most scenarios after the initial start-up period. It is quite possible that presenting a proposal for increased funding for tourism management with only the data gathered in the steps described so far will not be sufficient. For that reason, it is highly recommended that protected area managers and administrators go a step further and gather data that will illustrate the very positive economic impacts of protected area tourism.

The third part of making the financial case is to quantify the present benefits of tourism demand. Collecting data on current protected area revenues should not be difficult. This entails simply adding up revenues from all tourism-based revenue generation mechanisms including entrance fees, operator permits, and any concessions, etc.

A comparison of the protected area revenues with protected area costs will often show that there is seemingly a large financial return for very low investment. However, this may be deceiving, since many protected areas grossly underfund tourism management. The apparent low cost of tourism hides a range of basic costs that are typically not covered, and masks the reality of eroding natural capital and declining standards of visitor satisfaction.

Opportunities for generating tourism revenue are often under-exploited, such that both the revenue and cost columns are considerably lower than what they could be if tourism were funded at a sustainable level and tourism were managed properly within the *threshold of sustainability*. But because there is an apparent high return on investment, the ‘vicious cycle’ situation tends to be perpetuated. By factoring in investments in tourism management that are sufficient to retain high value tourism and maintain a high quality tourism experience, managers and administrators can prepare a realistic analysis of the overall revenue from protected areas within a threshold of sustainability scenario. The manager’s job is to create the idealized but practical scenario that makes the financial case for adequate investment that will make tourism an advantage rather than a threat, and that will help to start a ‘virtuous cycle’.

In a rapid-response situation, managers should complete the first and second parts of this step (identify current costs and assess new actions). This will put them in the position to understand the implications of moving existing financial resources for park management *out of* some existing, low priority issues, and into implementation of actions that will resolve a potential emergency. As soon as the opportunity presents itself, managers can proceed to the next components to create a compelling case to decision makers for more financial support.



Assessing the economic impacts of tourism

If resources are available, the next component of assessing the economic value of tourism is to analyze the impacts of tourism on local communities, destinations and national economies. Building this economic information about protected area tourism can give managers the tools they need to improve the financial situation for protected area management in the future.

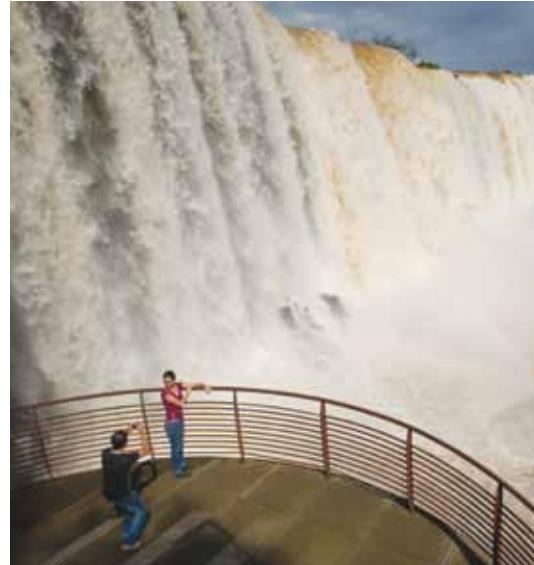
Tourism is often a rare economic opportunity in remote destinations. It can provide income through employment, and through the provision of services such as transport, guiding, food and accommodation, and handicraft sales. Often there are undeveloped opportunities to increase these benefits and thereby increase local support for conservation objectives.

A careful analysis of the impacts of tourism on local communities will likely require some field research. Some questions to consider include: Which communities in the study areas are impacted by tourism? What are the economic, social and cultural impacts? How many families in each community are affected? How many derive income from protected area tourism? How much income, either directly or indirectly, do they derive? What new employment opportunities exist?

Sometimes tourism can also cause negative impacts in local communities. For example, tourists visit and take pictures of local people but leave no economic benefit. Local prices for food and property may be inflated because of tourism demand, causing local hardship. Both positive and negative impacts should be recorded, including indicators of the limits of acceptable change.

The other aspect that researchers should consider is the impacts on the tourism industry. If resources permit, it can be useful to evaluate protected area tourism impacts on the broader economy and on different sectors, such as the 'multiplier effect' of protected area tourism spending on goods and services like souvenirs, taxi drivers, restaurants, hotels airport fees, and other types of indirect benefits. Government tourism departments usually maintain data on visitor numbers, spending patterns and duration of stay, among other data. In Peru, for example, the tourism department found that 71 percent of foreign tourists visited a protected area during their stay (Leon et al., 2008). Additional information on tourist spending patterns can be obtained from tourism sector associations and through consultation with tour operators.

This data will be important to transmit to key stakeholders through the communications strategy discussed later.



Identifying and securing funding sources

The third component in assessing the financial sustainability and value of tourism in protected areas is to identify funding sources, which should be done by managers in a rapid response mode or in longer-term planning. Funding for capital investments and the projected increased operating costs will often need to be sourced in two ways. The costs of implementing the *threshold of sustainability* cannot typically be covered from the outset by revenues such as tourism fees. Instead, finding a source of investment for the initial start-up costs may be necessary. Sometimes protected area systems can supplement their funds by accessing multilateral loans, grants or donations (e.g., through GEF implementing agencies such as the World Bank or UNDP). In other cases, bilateral sources may be available such as through USAID or GTZ, or even through international NGOs such as TNC or WWF. Where protected area agencies can make the case for increased investments, these funds may also be secured through national loans.

Investors and donors are unlikely to fund a proposal unless the protected area system can demonstrate a commitment and capacity to at least cover its own operating costs. For that reason, a protected area system can increase its chances of successfully fundraising for externally sourced start-up capital by presenting a proposal that includes a carefully developed plan to accrue self-generating income from a variety of tourism-based revenues mechanisms. This is a critical concept for protected area system managers to understand, as the ability to segregate costs in this manner increases chances of successfully fundraising for any externally sourced start-up capital.

There are many finance mechanisms available to protected area managers that are widely used around the world (Drumm et al., 2004). Two of the most useful are entrance fees and tour operator annual operating permits. In addition to generating revenue to cover operating costs, these mechanisms provide an important means of maintaining control of visitor numbers and exercising control over tour operators.

Concession-based revenues from hotels, restaurants and other services can also be significant sources of revenue, but protected area managers and administrators should avoid creating a dependency on revenue from these complementary opportunities by making them part of the core funding of operating cost budgets. As described in the section on concessions below, it is recommended that tourism concessions be treated separately from revenue mechanisms (such as user fees and entrance fees) aimed at covering operating costs.

If entrance fees are an important strategy, the park managers and administrators will need to determine the appropriate level of entrance fees. In many developing countries, internationally significant protected areas with major tourist attractions charge very low entrance fees. This is often the case even when there are comparatively wealthy foreign visitors, the parks are failing to cover basic costs, and the visitors themselves are prepared to pay more. As a consequence, taxpayers from developing countries are inadvertently subsidizing wealthy foreign visitors who visit their parks.

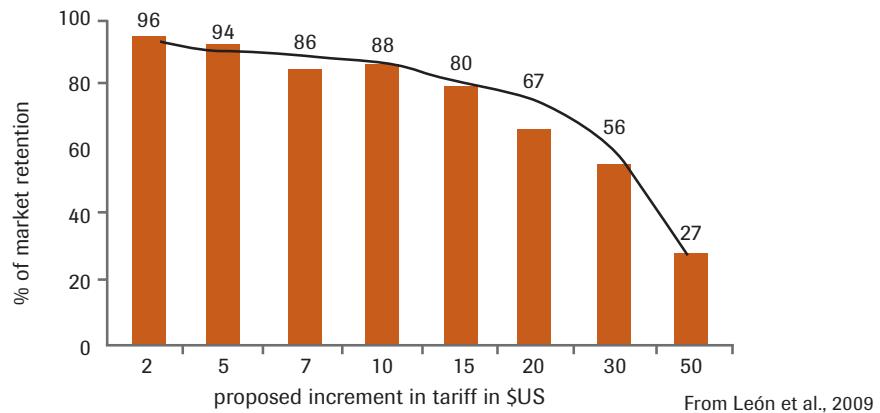
This situation occurs because protected area managers often do not clearly understand the real costs of tourism management, and because tour operators often resist fee increases. Tour operator reticence is often due to skepticism as to whether the increased prices will result in improved conditions for their clients and because they fear higher prices will negatively impact demand. These fears can be addressed by ensuring that there is reinvestment in the protected areas that generate these fees and transparency in the management of these revenues, as well

as by pointing to the growing evidence that increased park fees do not negatively affect demand, but rather increase it (Drumm, 2003; Thome, 2010).

In other cases, park agencies choose to charge the same fees to foreign visitors as national citizens – Peru and Ecuador, for example, lose millions of dollars of potential revenue every year because of this choice. Many developing country parks are more heavily visited by tourists from developed countries than by nationals. Yet nationals contribute through their income and other taxes to maintain the park system, whereas foreigners do not. For reasons of equity it may be more appropriate to charge differential fees, with foreigners paying more than nationals. At the same time foreign visitors are typically willing to pay more than nationals; indeed their motivation for making the expensive international journey to the host country is often to visit a particular protected area.

A good reference point for identifying appropriate entrance fees is to examine what other protected areas are charging in other countries. Another is to learn what visitors are actually prepared to pay. This can be ascertained by including questions in visitor surveys conducted as part of the initial economic evaluation. The same survey can be used to gather data that would predict how visitors would respond to a range of pricing scenarios (see Drumm et al., 2007 for three examples). In this way it is possible to generate information that can provide a strong technical basis for making a management decision to increase fee levels, which can be extremely valuable when confronting the political challenges of increasing park entrance fees.

The figure shows the results of such a survey in a classic curve that shows that the vast majority of visitors are willing to pay small and moderate increases, and that declining numbers are prepared to pay significant increases.



With these data it is possible to project the financial impact of small, moderate and large increases in entrance fees, in order to provide a range of options for decision makers.

Managing tour operators also results in work and costs for protected area managers. A license fee system will enable managers to generate revenue, while also exercising more control over these business users by making their access to the protected area subject to an annual review

and approval process. If demand from tour operators exceeds the park's capacity to manage tourism sustainably, then tour operators may bid or compete for a license.

As part of identifying revenue sources, park managers and administrators may also see complementary opportunities to create new mechanisms for generating funding from tourism. There are two major types of tourism-based complementary opportunity for generating additional revenue for PA management: tourism concessions and visitor donations.

TOURISM CONCESSIONS

In many protected areas around the world, there are opportunities to develop tourism that can benefit protected areas, local communities and businesses that have not been developed, often because of a lack of management capacity. Establishing the threshold of sustainability creates the enabling environment for these opportunities to be properly evaluated and developed. These may be opportunities for activities such as biking, hiking, boating, etc. which can be managed through permits or through concessions.

Tourism facilities such as hotels, restaurants, ski areas, shops and businesses have developed within park boundaries as concessions. In many cases, these facilities have become problems for protected area management by exerting pressure on conservation objectives, by limiting the types of actions protected area managers can take, and by creating a financial dependency on the tourism facilities.

In some cases, short-term interests of tourism businesses are allowed to prevail over the long-term interests of conservation. While tourism concessions within protected areas can be excellent opportunities for visitors, local communities, tourism businesses and protected areas, it is important that they are guided by a long-term vision of conservation management interests, and are subject to planning and administrative procedures that result in concessions complementing protected area budgets rather than replacing them or becoming integral to them. Therefore, while concession opportunities may be identified during the process of developing sustainable finance mechanisms, exploration of their potential and subsequent business planning should take place after the *threshold of sustainability* has been established.

VISITOR DONATIONS

Another complementary opportunity for generating revenues from tourism for protected areas is the creation of mechanisms and funds to capture donations from visitors who wish to contribute more than the entrance fee. In Mexico, for example, tour operators collect donations from their clients for investment in the conservation of the areas they have visited (Drumm, 2003). This money is channeled through a fund managed by a local NGO and a board made up of park managers and tour operators. Similarly, a small number of cruise ship companies in the Galapagos have generated millions of dollars in the space of a few years by actively soliciting donations from their clients for protected area conservation (Honey, 2008).

At the conclusion of this step, protected area managers addressing rapid response situations will understand the financial gap between current spending and the basic level of funding required. In addition, they may have taken steps to understand what users are willing to pay, and the range of potential funding mechanisms available, and be prepared to propose increases in the tourism management budget to decision makers.



step 4:

assessing the broader enabling environment



The broader enabling environment, including legal, regulatory, administrative and institutional frameworks, has a bearing on the effectiveness of tourism management in protected areas. This section explores how protected area managers and administrators can assess the broader enabling environment in order to take advantages of opportunities, minimize threats, and achieve the *threshold of sustainability* within protected areas. Even managers working in the rapid-response mode should be aware of the current enabling environment as context for financing targeted actions. Those implementing a long-term strategy to increase revenues from tourism and funding for protected area management should engage in a more thorough review of the enabling environment.

Legal review

From an early stage it is necessary to work closely with protected area legal advisors and external legal specialists in order to review and amend proposals. It is possible that legal and regulatory changes will be needed when proposing changes in how revenues are raised, managed and reinvested. New laws may be required to allow such arrangements.

Administrative review

A widespread administrative barrier to achieving financial sustainability, and therefore achieving the threshold of sustainability, is a situation where tourism fees flow directly to a centrally managed account that is unrelated to the protected area that generated it, or is even wholly independent of the protected area system. Unless there is a clear relationship between the revenues that are generated by an area and the reinvestment in bolstering management budgets and capacity, the incentive for park staff to generate the revenue is lost.

New administrative mechanisms may be needed in order to have better transparency and accountability in how funds are raised and distributed. Therefore, part of the data-gathering and administrative review process will require mapping the flow of tourism revenue through the financial and administrative system, in order to enable an analysis of how adjustments in that flow can be made – particularly to facilitate reinvestment of adequate funds to reach the *threshold of sustainability* in a particular protected area.

Policy and sectoral review

In many cases, existing policies both within the protected areas and across various sectors may need to be revised in order to achieve the *threshold of sustainability*.

For example, policies related to tourism concessions and tour operators are likely to have direct impacts on the ability of protected area managers to charge fees. Policies related to protected area staffing can affect whether the protected area has the capacity to reduce tourism impacts below the *threshold of sustainability*. Policies related to other sectors, such as forestry practices on adjacent lands, can also have an impact on visitor experiences.

At the end of this step, managers facing critical tourism related threats will have an idea of how the existing policy environment will support immediate, new actions. In the long-term context, they will have clarified the legal context for action – what policies, laws and regulations support action and which need to be modified or created. They will have a clear understanding of what administrative changes are needed in the collection and management of tourism revenues.





step 5:

develop and implement a communications strategy



Too often, excellent technical proposals fail to be implemented because of inadequate communications and marketing of important strategies to key internal and external audiences. In this case, a communications strategy is an integral component in achieving the *threshold of sustainability*. Ideally, a communications specialist from within the protected area system can be assigned to this task. Alternatively, an outside specialist can provide necessary professional support in this area to advise or oversee this complex and ongoing process with key but diverse audiences.

Note that at the outset of implementing the framework, it is important to gain support for the process from the tourism sector, from protected area staff, and from key decision makers and other stakeholders. This typically requires meeting with or convening groups of these important stakeholders to present the initial research proposal in an interactive environment, discussing it, and soliciting input to test assumptions and improve methods. An additional reason to engage with the tourism sector early on in the process is that their support can often be instrumental in conducting visitor surveys and in providing information about visitor preferences. As implementation of the framework proceeds, it is important to create a specific communications strategy for approaching and recruiting pivotal decision makers and other stakeholders.

Establishing clear lines of communication early in the process helps to create a shared sense of responsibility and accomplishment, and provides a solid basis for continuing collaboration from overstretched administrators. It is also important to maintain communication with representatives of the tourism sector, as they will need to be convinced of the advantages of increasing protected area entrance and permit fees.



Using a communications strategy to gain support from the tourism sector can also produce political dividends. They can use their influence with finance and related ministries to garner more widespread support for achieving the *threshold of sustainability*. Communicating with the Finance Ministry is also an important strategy for fostering their support of policy proposals to strengthen protected areas in order to maintain and boost tourist spending in the country.

Throughout the process, use of high-quality graphics and compelling visuals to display economic data, photos to illustrate visitor impacts and infrastructure, and maps to help audiences understand the geographical context of issues and proposals are all very important elements in preparing a successful proposal. It is remarkable how often tourism planning in protected areas takes place without good maps showing public use zones, visitor sites, trails, infrastructure, attractions and local communities. The investment made in producing these will be doubly beneficial as they will also be important tools in the tourism management planning process that will follow.

At each stage of the process, the protected area manager will have identified one or more critical audiences, and will have developed a communications plan – formally or informally – to reach those audiences with a specific message. The communications plan will have been tested with important audiences, and will enjoy a level of support necessary for success in lobbying key audiences for change. By the time Step 5 is completed, a formal, written communications plan identifying and addressing key audiences should have been developed.



step 6:

implement actions and monitor results



Ideally, the threshold of sustainability framework would inform tourism management planning processes *before* tourism threats become critical. However, it has been designed as a response to a crisis of tourism impact, as revealed by monitoring or casual observation. It may be that anecdotally, the protected area manager finds the number of complaints from visitors or tour operators has reached disturbingly high levels, or that revenues from tourism have begun to show a marked decline. It may be when sightings of charismatic wildlife species have notably declined, or when fish die off in a lake because of high levels of untreated sewage. Or it could be when a park ranger is injured from fighting fires caused by careless tourists. All of these circumstances would indicate that the situation has already deteriorated significantly and an intervention is merited.

Another opportunity to implement the threshold of sustainability is when a new tourism threat is anticipated, as when a new hotel is proposed near the park boundary, or an access road is being paved for the first time, or when the exchange rate of the local currency has declined significantly against that of neighboring countries or countries that are major sources of tourists. By anticipating an increased tourism demand, and applying the *threshold of sustainability*, it may be possible to act *before* threats become critical.

Whether implementing the *threshold of sustainability* approach as a rapid response or as part of a longer-term strategy for financing tourism management, once the decision is made to achieve the *threshold of sustainability*, the next step is deciding when and how to allocate initial funds. Having identified critical threats and key management weaknesses, and having evaluated a range of strategies to address them, a protected area manager has the opportunity to reallocate resources from within existing budgets, to the extent possible, to reach the *threshold of sustainability*. However, it is quite possible, and even likely, that reallocation within existing budgets

will be insufficient. In this case, it will be necessary to seek increased funding from across the entire protected area system. If more than one area is experiencing a similar situation, it may be worth preparing a multi-area proposal. In that scenario, the *threshold of sustainability* can be achieved with several or all of the protected areas working together collaboratively in a shared process. There will likely be economies of scale from taking a system-level or multi-area approach to implementation.

The budgets for protected area systems are typically underfunded because of the general under-estimation of the cost of protected area management and the under-valuation of the contribution of protected areas to the economy. This is where the economic valuation component plays such an important role. Credible financial data on current and projected costs and revenues can be tremendously persuasive to donors and decision makers. Early funding for this component and other start-up costs is critical.

Funding will be needed for those start-up costs that target the installation of urgent infrastructure, additional protected area staff, training programs and equipment to implement the selected strategies. There may be an additional need for an economics and finance specialist, a communications specialist, and a legal specialist to prepare the broader proposal for achieving the *threshold of sustainability*.

Sometimes funding may come sooner for the economic valuation than for urgent actions to address critical threats. It may be that funding for the protected area investments will not be forthcoming until after decision makers have been convinced by the financial proposal. However, this may be an opportunity to engage local and international NGOs and bilateral and multilateral institutions such as USAID, UNDP and others for assistance for early funding.





Establishing the capacity to monitor the impacts of tourism will be crucial to measuring and sustaining success. The monitoring program will begin by establishing a clear baseline against which progress can be measured. Indicators should be directly related to the elements of the threshold of sustainability. For example, if there is a particular threat that has been identified as one of the leading causes for decreased visitor satisfaction, it would make sense to include indicators that target the status of that threat.

The overall timeline from start to finish of implementing the *threshold of sustainability* framework will vary from country to country and protected area to protected area. However, the advantage of this approach is that it is not as burdensome as the process of developing a tourism management plan, and therefore should take much less time. The *threshold of sustainability* approach may take as long as two years to complete, depending on the enabling conditions present. As a rapid response, managers can proceed from threats analysis to implementation of first actions in less than 3 months; rapid response steps are indicated with an asterisk, below.

PHASE 1

- Identify threatened natural capital, and evaluate critical threats and key management weaknesses (1-2 weeks)*
- Identify potential strategies, understand the gap between existing and required funds, identify possible funding sources, and developing budgets (2 weeks)*
- In emergency situations, implement strategies and monitor results (variable length depending on threats)*
- Assess the economic value of protected areas (4-6 months)
- Assess the broader enabling environment (3-4 weeks)*
- Hold consultative workshops and preparing communication materials (4-6 weeks)
- Prepare a proposal (3- 4 weeks)

PHASE 2:

- Develop infrastructure, hiring and training of staff, and implementing actions and new strategies (6-9 months)

PHASE 3:

- Introduce new tourism revenue generation mechanisms (for example, user and entrance fees) and administrative structures (1 year from initiating Phase 2)

PHASE 4:

- When Phase 3 is up and running in year 2, turn focus to the development of complementary opportunities (such as concessions) and continue with long-term tourism management planning.

key lessons learned

Applying the *threshold of sustainability* approach to managing tourism is a concerted, focused, short-term approach to addressing tourism-related impacts within protected areas. It is typically much simpler and cheaper than a full tourism management plan to develop and implement. For many protected area managers and administrators who are feeling overwhelmed by the impacts of tourism, this guide may offer one of the easiest and fastest approaches to controlling the situation, and to establishing a platform for tourism to fulfill its economic potential. The following section provides a brief overview of the some of the main lessons learned to date in implementing the *threshold of sustainability* approach.

1. TOURISM IS A GROWING THREAT AND A GROWING ECONOMIC OPPORTUNITY

Tourism is a clear and growing threat to the very biodiversity and other natural attractions that bring people to protected areas in ever larger numbers. In many parts of the world, current tourism management approaches are failing to protect natural capital and deliver a consistent, durable experience to tourists. Protected areas and local people are losing economic opportunities from tourism spending. The more we fail to address this situation proactively and creatively, the more limited the potential becomes for a county's natural capital to contribute to economic development. In study after study, the economic value of protected area tourism is overwhelmingly clear – it can be a significant source of income for businesses, local communities and governments, as well as for protected areas. Conducting accurate financial and economic analyses will help convince decision makers that the initial investments required to secure the threshold of sustainability are well worth the investment.

2. CAREFULLY AND CLEARLY IDENTIFY CRITICAL THREATS AND MANAGEMENT ISSUES AND ROOT CAUSES WHEN POSSIBLE

Managers are often confronted with symptoms of more fundamental ailments, just as humans often experience a headache that is caused by something more systemic. We can choose to simply respond to the symptom, or we can address the cause of the symptom. In some situations, dealing with the symptom may be an acceptable short term solution. Eventually, however, the fundamental cause will need to be addressed. This Quick Guide is focused primarily on the minimal necessary actions to deal with threats and risks. In most cases, the processes detailed here focus on symptoms. Long-term planning helps deal with root causes.

3. CHOOSE THE MOST EFFICIENT AND EFFECTIVE STRATEGIES FOR CHANGE

Any number of actions or strategies can be developed for a particular threat or management weakness – choosing the most effective and efficient strategy, however, can be challenging. Planners should focus on those few strategies that will have the greatest influence in converting a vicious cycle into a virtuous cycle.



4. ACKNOWLEDGE THAT THERE WILL ALWAYS BE UNANTICIPATED CONSEQUENCES

We never know for sure what will happen when a new management action is implemented. A new parking lot may shift use patterns in unexpected ways. A new pedestrian bridge may increase use levels. Restrictions on tourism activities may lead to increasing use elsewhere. Consider that some interventions may not actually be successful or may shift the burden and costs to others. Managers should be prepared for these unexpected consequences, and monitor for them as much as possible. Also be aware that *incremental* decisions can result in gradual loss of natural capital and opportunities for quality visitor experiences. Weigh the consequences of incremental decisions prior to their implementation. Monitoring will help identify them; an adaptive management strategy will help respond to them.

5. INITIAL START-UP INVESTMENTS ARE ALMOST ALWAYS REQUIRED

Because the grip of a vicious cycle can be so strong, initial start-up investments are almost always required in order to change the course of tourism management, and to ensure a solid basis for the *threshold of sustainability*. Planners should treat start-up investments and ongoing operational costs as different elements of management.

6. COMMUNICATE CLEARLY AND EFFECTIVELY WITH KEY STAKEHOLDERS EARLY IN THE PROCESS

Engaging protected area managers and administrative staff, as well as the tourism sector and key decision makers early and effectively throughout the process can help in ensuring the strong support that will be required if financial, legal and policy changes are to be made.

7. KEEP ASSESSMENTS SIMPLE AND CONCISE

Economic studies do not need to be overly complex to be effective. Visitor surveys should be short and focused. Protected area managers should seek professional assistance in the design and analysis of data, and engage a local university to assist with the application of surveys in the field.

8. BUILD FROM EXISTING WORK

In many cases, there is already existing work that has been done on assessing threats and management effectiveness, developing potential strategies, conducting “willingness to pay” surveys, and surveying visitor experiences. This work may have been through NGOs, citizen groups, universities, tourism operators, or the protected areas themselves.

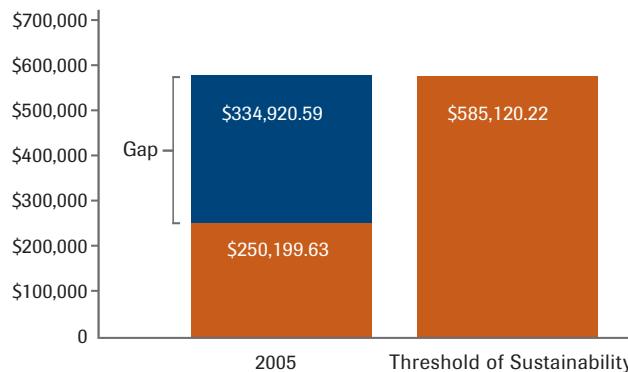
case study: ecuador



This study was led in 2007 by The Nature Conservancy, working with Conservation International, other local NGOs, the Ministry of Environment, and with financial support from the USAID/TNC Parks in Peril program and the Alex C. Walker Foundation. Impetus for the study came from a desire among local actors to increase revenues from tourism for the management of a group of protected areas constituting the Condor Bio-Reserve. An initial rapid threats analysis showed that conservation objectives were already under pressure from current levels of tourism due to insufficient capacity and funding for tourism management. They agreed to identify actions to achieve the *threshold of sustainability* prior to investing in tourism promotion. In order to create a persuasive argument to decision makers for making adjustments in the revenue management system, they conducted a study to demonstrate the economic value of protected area tourism's current and potential contribution to the economy.

To better understand the source of the threat and the potential economic opportunity, a demand analysis was carried out at the seven protected areas that received 80% of the total visitors to mainland parks. The current level of investment in tourism management was also quantified. A demand analysis was also carried out at Galapagos National Park, which attracts most foreign visitors, to identify the potential market for mainland parks.

The study identified several recurring management weaknesses and key management strategies across all seven protected areas: impact monitoring and management; interpretation and information; security and basic infrastructure. They calculated the cost of implementing these minimum, basic strategies to enable a comparison between current costs and the costs of attaining the Threshold of Sustainability, suggesting that the annual budget increase from \$250k to \$585k – a daunting prospect for any protected area ministry.



Total current expenses (2005) and proposed expenditures (to meet the threshold of sustainability) per year for all of the protected area sites in the study.

The initial analyses also indicated that there was considerable opportunity to increase entry fees and also to develop complementary opportunities to increase protected area financing.

The economic valuation study showed that 95% of the protected area system's self-generated income came from tourism. However, revenue generation mechanisms were not priced in relation to the actual costs of managing tourism, which were poorly understood. Re-investment of this revenue in protected area management bore no relation to revenue generated, nor to the actual funding required to cover tourism management costs. As a result, protected area managers were unable to manage tourism's increasingly negative impacts adequately, and problems were increasing to such an extent that important habitat was being lost, and some protected area staff devoted most of their time to cleaning up after tourists rather than to more important conservation management priorities.

A contingent valuation (willingness to pay) study that was conducted as part of the demand analysis (visitor survey) showed that visitors were generally prepared to pay higher entrance fees, but that they also had expectations of resultant improvements in services and facilities. The proposed interventions to address threats and management weaknesses would have the result of improving the quality of the visitor experience as well as creating conditions where higher fees could be charged.

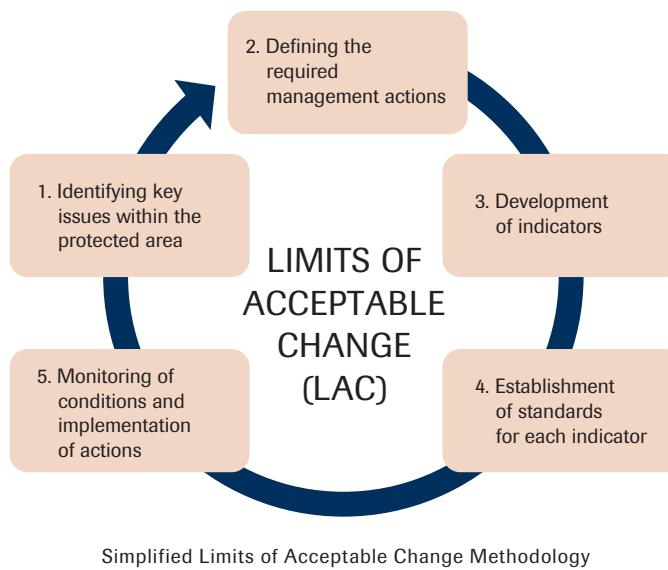
Subsequent to the determination of core financial needs to achieve the threshold of sustainability, an evaluation of complementary opportunities showed that conservatively an additional \$1.8million in tourism spending could be generated in five years by facilitating the development of one basic tourism service

Seven protected areas within the study site.



per protected area, e.g., food provision or accommodation. These would create new revenues for local communities and tourism businesses as well as for the protected area.

The value of the initial capital investment required for the seven areas was \$510,000. Funding was mobilized through the Global Sustainable Tourism Alliance (GSTA) and TNC to make the required investments in improving basic infrastructure — such as a ranger station in Chimborazo and a dock at Manglares Churute — and in training staff. With support from the USFS Migratory Bird Program, 36 managers of areas with important habitat for migratory birds were trained and guided in the implementation of the Limits of Acceptable Change methodology (Stankey et al., 1985). The training focused on implementation while learning, generating considerable enthusiasm among staff, and resulting in a rapid increase in confidence and reduced impacts.



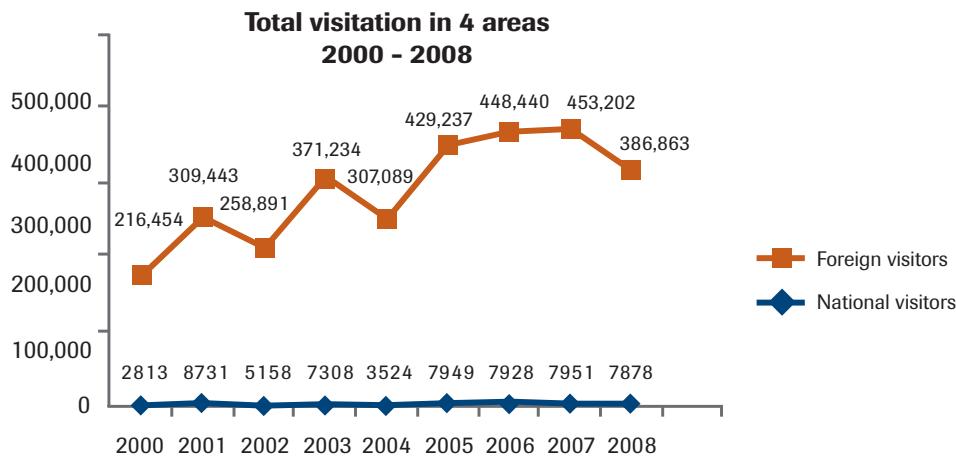
The process provided 15 recommendations to the Ministry of Environment, including for adjustment of specific regulations in order to facilitate the changes required. As noted above, much of the initial startup costs were covered and minimum investments in infrastructure, training, monitoring and interpretation were made, allowing the seven areas to mitigate existing tourism impacts. Unfortunately, at the time of writing, the recommended changes to the revenue generation mechanisms have not yet been made, suggesting a role for a stronger communication strategy. However, there is much greater understanding of the value of the contribution of protected areas to economic development. The investments made to improve tourism management capacity and reduce threats have been a notable contribution by the Ecuadorian protected area system toward their CBD PoWPA objectives.



case study: dominican republic

This study was led by TNC working closely with the Ministry of Environment and Natural Resources, with financial support from GSTA/USAID. Its objectives were to understand the revenue potential of the protected area system (which the Ministry planned to expand) in order to improve community benefits and to better understand tourism management needs in support the Dominican Government's commitment to implement the CBD's PoWPA. The initial report to identify the *threshold of sustainability* and the other pre-implementation phases took 6 months to research and prepare and cost approximately US\$50,000.

Each year, approximately 10% of Dominican Republic's 4 million international tourists visit a protected area. Demand from Dominican tourists is very low in comparison. A large percentage of international tourists visit the protected areas as part of a program purchased through tour operators. For example, day trips from resort areas to Del Este NP account for the biggest visitor numbers to a protected area by far.



Tourism Revenues

Virtually all self-generated revenue for the protected area system comes from tourism, principally park entrance fees. However, once collected, these revenues are transferred to a central government account. The current level of investment in the protected areas is insufficient to maintain effective management. Consequently, the capacity of the protected areas to continue generating the current level of revenues is compromised.

In 2007, the SINAP Budget was US\$9.3 million. Of this, about 90% was assigned to cover staff salaries, whereas the amounts assigned to cover resource management, tourism management, monitoring and community relations was very low or zero (International Resources Group Ltd, 2006). 80% of tourist demand is focused on just four protected areas: Del Este NP, Los Haitises NP, Valle Nuevo NP, and Estero Hondo Marine Sanctuary.

An economic valuation study (Izurieta et al., 2009) found notable inconsistency in the collection and presentation of information on visitor registration for some areas. This is a management weakness that makes planning difficult. The lack of entrance fee differentiation between foreign and national visitors also made understanding demand more difficult because it was unclear from collected statistics if a visitor was local or foreign. But more importantly, from a financial sustainability perspective, this lack of differentiation in entrance fee prices between nationals and foreigners meant that considerable revenue is lost to the protected area system. A contingent valuation study indicated that foreigners were prepared to pay higher entrance fees than currently charged, which are low by international standards, and showed that revenues would be at least 256% higher if differentiated fees were charged.

Tourism Management Costs

To achieve the *threshold of sustainability*, the economic valuation and threats analysis suggested that the current tourism management budget would need to be doubled to US\$420,000 in the four most visited areas. These funds would be invested in strengthening protected area capacity in several areas including staff training, infrastructure and equipment, impact monitoring, and interpretation.

Currently all protected area finance information is centralized in the Department of Special Projects at the Ministry of Environment and Natural Resources. This includes both revenue and management cost information. This centralization severely limits the planning ability of protected area managers and the provincial directors. To facilitate effective planning, financial information needs to be made much more accessible to protected area managers and others.

Towards the Threshold of Sustainability

At the time of writing, the first steps to implement recommendations emerging from the *threshold of sustainability* approach are underway; new and more efficient controls of visitor numbers and fee collection have been implemented at the most heavily visited PA - Del Este. This has led to a 25% increase in revenues in the first year. This will also be introduced at Los Haitises in 2011. However there has been no change in the centralized financial administrative structure as yet to facilitate the reinvestment in the protected areas of a percentage of revenues sufficient to cover basic tourism management costs. A current GEF-financed reengineering project at the Ministry of Environment is expected to produce a financial sustainability plan which adopts this and other *threshold of sustainability* strategies, such as interpretation, staff hiring and training, and infrastructure.

Also, investments have been made with the financial support of USAID and the technical assistance of TNC in establishing management capacities – particularly in training protected area managers in the monitoring and managing visitor impacts, developing visitor impact management plans, as well as infrastructure and signage planning.



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