Integrating Biodiversity into the Tourism Sector: Best Practice Guidelines

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by

Arq. Hector Ceballos-Lascurain,
International Coordinator of BPSP Study on Biodiversity/Tourism
Director General PICE
Programme of International Consultancy on Ecotourism

Camino Real al Ajusco 551
Col. Xolalpa (Tepepan), Tlalpan
14649 Mexico DF, MEXICO
Tel: (52) 5 676 8734; Fax: (52) 5 676 5285
e-mail: ceballos@laneta.apc.org
Web site: http://www.ceballos-lascurain.com

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by Hector Ceballos-Lascurain**

CONTENTS:

Acknowledgements

1. Introduction

1.1 Background

Tourism has become one of the most important economic activities in the world. According to the World Tourism Organization (WTO), world tourism in the year 2000, spurred on by a strong global economy and special events held to commemorate the new millennium, grew by an estimated 7.4 % - its highest annual growth rate in nearly a decade and almost double the increase of 1999. Nearly 50 million more international trips were made in 2000 - bringing the total number of international arrivals to a record 698 million. (WTO, 2001). The number of domestic tourists is still difficult to accurately quantify, but is estimated by some researchers to be as much as 10 times the number of international tourists. Clearly, tourism has a paramount economic role for countries around the world and, if planned and managed correctly, can significantly contribute to sustainable socio-economic development and environmental conservation. However, inappropriate tourism developments – based mainly on the model of mainstream or mass tourism – are producing severe negative impacts on the natural and cultural environment, including biodiversity. If uncontrolled mass tourism is allowed to continue overrunning many areas of natural and cultural significance, irreversible damage will occur in these areas, which are the repositories of biological and cultural diversity in the planet as well as important sources of income and well-being for all countries and many local communities. Even tourism developments in urban settings, far away from natural areas, may have unanticipated effects on surrounding lands and waters and the atmosphere, thus affecting biodiversity in many ways. Consequently, the appropriate interaction between biodiversity conservation planning and tourism planning and development has become a key concern for many institutions at the local, national and international levels.

The UNDP/UNEP/GEF Biodiversity Planning Support Programme (BPSP) has a mandate to provide assistance to national biodiversity conservation planners as they develop and implement their national biodiversity strategies and action plans. The integration of biodiversity into other sectors of the national economy and civil society has been identified as a critical indicator of successful implementation of sustainable development practices and of the objectives of the Convention on Biological Diversity (CBD). To achieve this, UNEP has commissioned a series of thematic studies, each focused on one aspect of sectoral integration. One of these thematic studies is Integration of Biodiversity into the National Tourism Sector.

Sustainable tourism has been highlighted recently as an area of major concern both within UNEP and the CBD.

The United Nations Environment Programme (UNEP) Division of Technology, Industry and Economics has, over the past two years, surveyed all main guidelines on sustainable tourism[1] that are already available, and has consolidated and summarised these into a single set of proposed "Principles for Implementation of Sustainable Tourism"[2].

The Conference of Parties of the Convention on Biological Diversity considered the relationship between tourism and biodiversity during its 5th meeting in Nairobi (see UNEP/CBD/COP/5/20: Sustainable Use Including Tourism[3]). In its final decisions (UNEP/CBD/COP/5/ V.25 Para.5) [4], the CoP requested Parties to submit case studies on tourism as an example of sustainable use of biological diversity.

Outside of the mechanisms of UNEP and the CBD, a large number of other initiatives linking biodiversity and tourism (including ecotourism) have been undertaken by many organisations, ranging from the World Tourism Organisation (WTO), UNESCO, a number of NGOs, as well as numerous national and regional level destinations, and private tourism companies.

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[1] A Compendium of existing Guidelines is available at: http://www.unepie.org
[2] The draft principles are available at: http://www.unepie.org/tourism/draft_principles.html
[3] See: http://www.biodiv.org/doc/meeting.asp?lg=0&wg=cop-05
[4] See: http://www.biodiv.org/decisions/default.asp?lg=0&m=cop-05&d=25

It is extremely difficult for national biodiversity planners to (i) identify, (ii) access and (iii) assimilate all of this information on the interface between biodiversity and tourism. It is also difficult for biodiversity planners to see the relevance of much "high-level policy-speak" to their day-to-day activities on the ground.

The goal of the BPSP thematic study has been to try to provide a guide to best practice in the integration of both fields: sustainable tourism and biodiversity planning and protection. This Report strives to integrate biodiversity into the tourism sector and also integrate sustainable tourism into biodiversity planning and protection. Both fields need to interact in a positive way.

1.2 Methodology

As mentioned above, one of UNEP's main tasks within the overall BPSP project has been to generate information to assist national biodiversity planners with sectoral integration of National Biodiversity Strategy and Actions Plans (NBSAPs) into the broader national development framework. In order to do this, UNEP has commissioned a series of thematic studies, each focused on one aspect of sectoral integration. One of these thematic studies is Integration of Biodiversity into the National Tourism Sector.

The present Report has been carried out within the framework of this thematic study. The final synthesis report for the tourism thematic will be a revised version of this report to UNEP/BPSP. The final official outputs from each of the thematic studies will be made available at SBSTTA 7 in Montreal in November 2001 and CoP 6 at The Hague in April 2002.

Within the scope of this thematic study, and as background material, apart from the present Report, a compilation of national case studies from 12 countries selected from around the world has been obtained. The 12 selected country case studies are: Belize, Botswana, Canada, Chile, Costa Rica, Kazakhstan, Korea, Mexico, Peru, Seychelles, South Africa and Trinidad & Tobago.

Also within the framework of this study, an International Workshop on "Integrating Biodiversity and Tourism" was held in Mexico City from March 29th-31st 2001, hosted by SEMARNAT (the Mexican Ministry of the Environment and Natural Resources) and SECTUR (the Mexican Ministry of Tourism), to discuss the country case studies and global best practices for the integration of biodiversity into the tourism sector.

The present Report provides global best practice guidelines for integrating biodiversity conservation planning into the tourism sector. These guidelines have emerged as a result of a careful analysis of the 12 country case studies, as well as from the discussions held during the International Workshop and also the personal experience of the author and several consultants who have collaborated in this project. This document also builds on UNEP's *Principles for Implementation of Sustainable Tourism*, in an attempt to complement and reach further in attaining a symbiotic relationship between biodiversity conservation planning and tourism.

It is important to note that not all of these guidelines will be of equal interest or direct application to all readers of the document. Some sections will be of more direct interest to government officials and protected area managers, others to members of the tourism industry and yet others to representatives of the local communities, members of NGOs, or architects and planners. However, since the field of interaction between biodiversity and tourism is a very complex one, it is our hope that all the stakeholders involved will be interested in the scope of the whole document, which has intended to provide a holistic approach to this subject.

Appendix I contains references to the 12 selected country case studies and their respective authors.

Appendix II contains a Glossary, which tends to clarify some of the basic terms and concepts related both to biodiversity conservation planning and sustainable tourism.

Appendix III consists of an extensive and updated Annotated Bibliography prepared by the author, which includes printed material as well as on-line documents.

Citations have been provided within the text only when they refer to sources (contained in the Annotated Bibliography) other than the 12 selected country case studies. References to the country case studies within the text have been omitted, for reasons of space and clarity.

1.3 Objectives

Why is it important to have global guidelines for best practices in integrating biodiversity conservation planning within the tourism sector?

The main objective of the present Guidelines is to provide a practical tool to biodiversity conservation planners (our main target audience) in order to build a bridge with the tourism sector. But likewise, it is hoped that this document will be useful to people working within the tourism industry in order to have a better understanding of the importance of biodiversity conservation. These guidelines are intended to be practical and of global application so they may be adapted for each national situation. Hence this document is intended to build a symbiotic relationship between biodiversity planners and tourism professionals. We have therefore endeavoured to avoid the use of jargon, so that the information can be easily understood by policy makers and implementers, biodiversity conservation planners, park rangers, tour operators, hotel owners and managers, planners and builders, NGO representatives and local communities.

The specific objectives of these guidelines are to:

- Identify resources and clarify concepts for biodiversity planners on the subject of sustainable tourism.

- Foster a proactive attitude and encourage the implementation of a public policy towards the development of sustainable tourism (including ecotourism) and the development of symbiotic links between biodiversity and tourism as a tool for conservation and sustainable development.

- Highlight the positive ways in which tourism can help conserve biodiversity, instead of viewing tourism merely as a negative force.

- Provide practical tools for tourism planners and developers so that their activity will have a more positive interaction with biodiversity conservation planning.

- Identify and promote best practices in sustainable tourism policies.

- Influence decision makers in relevant conservation areas to consider ecotourism as an alternative to more destructive industries.

- Help communities, NGOs, governmental officials and park mangers to create more sustainable tourism products and establish best practices for tourism operators.

- Influence conventional mass tourism practices so that their activity is less harmful to the natural and cultural environment and even beneficial to conservation.

- Help create a participatory framework by which sustainable tourism policies can be created.

- Outline the stakeholder relationships that drive the tourism/biodiversity relationship.

- Provide evidence and case studies to support the statement that conservationists have an interest in encouraging tourism development that contributes to biodiversity conservation, as well as a broad concern for controlling tourism that is detrimental to the environment.

Sustainable tourism has the capability of being a feasible tool for biodiversity conservation by providing economic alternatives for communities to engage in other than destructive livelihood activities, creating new revenue streams to support conservation through user fee systems and other mechanisms, and building constituencies that support conservation priorities by exposing tourists, communities, and governments to the value of protecting unique natural ecosystems.

2. Government Planning Framework

2.1 National and Regional Planning Strategies

Overview

Every national and regional planning strategy should strive to improve the social and economic levels of human communities while maintaining environmental integrity in perpetuity. In other words, planning should contribute in an important way to sustainable development, which comprises all human activities. For this reason we should ensure that tourism, which has attained a major socio-economic role around the world, is balanced with other economic, social and environmental objectives. A national tourism strategy should be firmly based on profound knowledge and wise use of environmental resources, which includes biodiversity.

This will be achieved only if we foster harmonisation among all public policies, including tourism and biodiversity conservation planning. This harmonisation must occur at the national level, as well as at the regional (sub-national) and local levels. Both tourism planning and biodiversity conservation planning lend themselves to a bio-regional approach.

It is important to promote valuing of natural resources and tourism assets for inclusion in national accounts. The importance of tourism has to be promoted at a national scale. One of the challenges that governmental tourism agencies face is that usually they are low priority compared to other government bodies. Tourism agencies need to do a much better job of understanding and demonstrating the importance of tourism to national and regional economies.

"Use-it-or-lose-it" conservation strategies aim to achieve their goals through strictly controlled access to ecologically significant areas and resources – and tourism is a key component in this approach, giving value to the natural resources, including biodiversity. Since there is the need for communities to appropriately value their resources (and this will build up their community pride), local education in the environmental and tourism fields are urgently required.

It is very important to recognise the need for a symbiotic relationship between biodiversity conservation planning and tourism planning. We must find effective ways to have tourism contribute to biodiversity conservation and vice versa.

Most countries around the world still do not dedicate enough effort towards the conservation of biodiversity, perhaps because they haven't recognised the value and usefulness of this effort. Keeping the biodiversity resource base means enhancing the tourism attractiveness of a country.

Unfortunately, in many developing countries, any change proposed in favour of an improvement in the conservation of biodiversity is interpreted as an obstacle for development. The sustainable positive impact of biodiversity within a comprehensive regional development strategy that considers overall qualitative benefits and not merely quantitative economic gains within a partial sectoral focus is still not understood by the population at large, nor by many politicians.

It is important to recognise that many rural communities located in some of the most attractive ecotourism destinations are characterised by extreme poverty. Sadly, many government development plans don't consider their involvement in tourism activities, especially ecotourism, as an option to alleviate poverty. Thus, it is very important to insist on promoting ecotourism to governments as an important tool for rural poverty alleviation programmes.

There is a generalised lack of information on the environmental impact of the different economic activities (including tourism) on biodiversity and of mechanisms to evaluate and monitor this impact. To this we must add the inefficient coordination existing between many state dependencies, local governments and communal groups, as well as the lack of efficient land-use environmental planning.

Specific Examples of Best Practice from Selected Countries

1) Costa Rica: The key factor for success for Costa Rica's tourism sector is sustainability as much of tourism activity as of natural resources. The State plays the role of coordinating entity and regulator of projects and programmes that provide incentives to the communities, and also promotes and generates a real need for a sustainable model as part of environmental, business and local participation schemes. Tourism activity is one of the most important ways of valuing biodiversity and backing its conservation. National and foreign tourists are counted among the National System of Conservation Areas (SINAC's) main clients. It is they who currently generate the greatest amount of resources for the institution.

2) Costa Rica: With the aim of using tourism as a positive tool for the management of the protected wilderness areas (PWAs), **SINAC has defined as its general policy facilitating sustainable tourism development based on responsible practices of planning and management that are in accord with actions for conserving the country's natural and cultural heritage**. Tourism in the PWAs seeks to prevent environmental damage, foster the satisfaction of visitors, provide support to the monitoring of sustainable tourism and is interested in contributing to the country's local economies. This is a good example of a clear objective in planning to use tourism as a tool for natural resource management.

3) South Africa: Taxing pollution and subsidising products and activities with less environmental damage (including ecotourism), as well as altering interest rates to encourage certain land use patterns are economic mechanisms that are efficiently being used by the government.

4) Mexico: The Ministry of Tourism (SECTUR), in coordination with the Ministry of the Environment (previously SEMARNAP, now SEMARNAT), the Commission for the Knowledge and Use of Biodiversity (CONABIO) and several other institutions from the public, private, social and academic sectors, published in the year 2000 a **National Policy and Strategy for Sustainable Tourism, which represents a good inter-sectoral effort and contains valuable guidelines and action plans.**

5) UK: A good example of striving to alleviate poverty is the British government's Department for International Development (DFID's) pro-poor concerns and their interest in funding tourism.

Best Practice Guidelines

?   Establish a national tourism strategy that prominently includes guidelines for biodiversity conservation planning.
?   For conserving biodiversity through sustainable tourism:
-       provide a strong scientific basis,
-       adopt an integrated management approach that covers all socio-economic aspects of a region, including tourism,
-       carry out ongoing monitoring of environmental impacts, through effective application of. Environmental Impact Assessment (EIA), which should be carried out by inter-sectoral technical entities,

- apply the precautionary principle (a guiding rule in EIA to protect people and the environment against future risks, hazards, and adverse impacts, tending to emphasise safety considerations in the occasional absence of clear evidence).

? Promote and strengthen the decision making process and the standardisation (norms) process in a participatory manner, especially at the local level.

? Build up institutional capacity of the environmental authorities for follow up of environmental impact assessment and application of prevailing norms.

? Apply integrated land use planning at a regional scale, taking into consideration the local communities' opinions.

? Within the framework of the national tourism strategy, establish a sound ecotourism policy of an inter-sectoral nature that will provide viable options for biodiversity conservation and sustainable development especially at the local rural level.

? Concentrate efforts on mid and long-term development policies without being pressured by periodical changes in government administration. Don't rely exclusively on short-term planning.

? Foster the use of taxes, subsidies and interest rates to reduce the negative environmental impacts of economic activity and enhance the positive effects. Making loans more easily available is a key point, in which the government should also participate.

2.2 Inter-sectoral coordination

Overview

Both biodiversity conservation planning and tourism planning and development are complex, inter-disciplinary and inter-sectoral phenomena, thus appropriate interaction and integration is even more so challenging.

There is an overall need to develop effective inter-sectoral mechanisms that will ensure the harmonious interaction among all stakeholders and a symbiotic linkage between biodiversity conservation planning and tourism planning and development. For this reason, practical and dynamic coordination bodies (whether they be called commissions, committees, councils or agencies) for ensuring this appropriate interaction must be set up. These bodies should include genuine, fully empowered representatives of the different stakeholders or sectors: government, private tourism sector, NGOs, local communities, and financial institutions. Although it is difficult to have the tourists themselves in a committee of this sort, their input should be sought. Inter-sectoral cooperation for the appropriate, sustainable and interactive development of tourism and biodiversity conservation planning must occur at the local, national, and international levels.

Jurisdictions and responsibilities of the different agencies, authorities and organisations should be clearly defined and complement each other. Government representatives in these inter-sectoral coordination committees should at least come from the ministries (or equivalent government or para-statal agencies) dealing with tourism and the environment, and it is convenient also that the ministries dealing with agriculture, fisheries, and education be included. Sometimes it is not necessary to create a new entity. A pre-existing body may be strengthened so as to develop a mandate of cooperation and non-duplication – one which is legislated, if need be. In a number of countries, these inter-sectoral coordination bodies have been established, with varying degrees of success (see Box 1 for details on how these bodies have been set up).

In every case it is important to first create the appropriate political environment between government departments (tourism, environment, agriculture) before bringing the other sectors (NGOs, tour operators, local communities) together. The role of NGOs is vital, and should include local, national and international NGOs. Bi-lateral and multi-lateral development aid agencies (where appropriate) should collaborate, but always serving the local and national interests of the corresponding country. There must also be environmental education for those who are taking decisions, both in the fields of conservation and tourism.

Specific Examples of Best Practice from Selected Countries

1): Australia: CRC is a network of Cooperative Research Centres in Australia, one group of which is dedicated to sustainable tourism (http://www.crctourism.com.au/). **The Sustainable Tourism CRC is a very effective model of how universities can work with government and the tourism sector** to develop and implement a research agenda that works for all three groups. Housed in universities throughout Australia, the research is undertaken by academics but directly responds to the needs of government and industry (they determine which projects receive funding grants and therefore the projects that fulfil their needs are selected). It helps all facets of the sustainable tourism industry to become linked.

2) Chile: In 1994, an entity called the **National Commission for the Environment (CONAMA)** coordinated through the President's Secretariat was created. This committee, composed by 12 ministries, has the following responsibilities: coordination of national environmental matters, administration of a system for environmental impact assessment, operation of an information system, and coordination and evaluation of ecotourism projects and activities inside and outside of protected areas.

3) Costa Rica: This country has successfully integrated the management of national parks, wildlife and forests into a single organisation, the MINAE's (Ministry of the Environment and Energy) SINAC (National System of Conservation Areas). The system is made up of eleven Conservation Areas that comprise 25% of the entire country, providing a good scenario for inter-sectoral synergy. Strengthening of inter-sectoral coordination is achieved through clear mechanisms for participation of the private and state sectors for planning tourism: e.g., the National Accreditation Commission for the Certification for Sustainable Tourism (CST).

4) Costa Rica: Communities have formed associations and cooperatives in different places throughout the country that have, as their main activity, local tourism. Private reserves, which at the moment total more than 100, and cover 1% of the national territory, rely on ecotourism as their main source of revenue. They carry out their activities in coordination with, and backing from, the Costa Rican Tourism Institute (ICT) and the MINAE, in the case of ecotourism, and in the case of agrotourism projects, with the ICT and Agrarian Development Institute (IDA).

5) Costa Rica: The *Bandera Azul Ecológica* ("Blue Ecological Flag") programme was established by ICT in 1996 by Executive Decree as a coordinated action carried out by MINAE, AyA (Institute of Water and Sewage), CANATUR (National Chamber of Tourism), and the Ministry of Health. This programme awards the Blue Flag to Costa Rican beaches that comply with requirements of cleanliness , environmental education , and community organisation, thus warranting the sanitary and aesthetic qualities of the beaches.

6) Belize: The Belize Tourism Industry Association (BTIA) was formed in 1985 to bring together tourism-related interests to meet the challenges of the industry and act as an important link between the public and private sectors. BTIA has chapters in each district of Belize, and includes a broad range of individual members from all areas of the industry as well as representation from associations such as the Belize Hotels Association, Belize Tour Guides Association, Belize Tour Operators Association, Belize Ecotourism Association and others. A perceived weakness of BTIA is that it functions more like a membership-based organisation rather than an umbrella organisation. As the latter, it would be able to function more directly as an advocacy for the industry.

7) Canada: There are a number of senior level government committees which are designed to enable united action across the country, in the various jurisdictions which have independent authority over resources. They include representatives from the national, provincial and territorial governments, and often exist at both the ministerial levels and at administrative levels. Examples include: the Council of Ministers of Environment and Wildlife; Ministers of Parks; Ministers of Tourism; the Federal Provincial Parks Committee – directors who focus on parks and related issues, including tourism. These councils and committees are gradually addressing topics which might seem to be outside of their jurisdictions, but in fact are very much related to their core responsibility areas. An even greater degree of recognition of horizontal integration among resource based ministries is required.

8) Canada: The Canadian Tourism Commission (CTC) developed their vision and mission tapping into the direction of a 20-member team of industry experts, then presented them to industry stakeholders, provincial and territorial governments, and destination marketing organisations, to get consensus on a shared vision and

mission, and to encourage a unified Canada perspective. The CTC has maintained leadership in commissioning studies such as: *A Catalogue of Exemplary Practices in Adventure Travel and Ecotourism*, also *Best Practices in Canada's Tourism Industry: Partnerships*, and the more recent *Best Practices in Natural Heritage Collaborations: Park Agencies and Eco-Adventure Operators.* The CTC tackles such topics on the advice of their industry advisory committees, and the Parks study was in response to the mounting tension between some park agencies and eco-adventure operators, as well as the new National Parks focus on maintaining ecological integrity as their primary mandate. The study looked at strengths, weaknesses, and opportunities related to the current situation, together with current best practices in planning, operation and collaboration, and suggestions for the future. A series of regional workshops has also been planned between operators and Parks agencies, to discuss future directions and priorities.

9) Canada: The Biosphere Reserve Ecotourism Initiative is one of a number of tourism partnerships in the CTC Product Club Programme. The Ecotourism Product Club is a partnering programme between individual Canadian Biosphere Reserves, local communities and the private sector. The goals of this partnership are to: encourage and package sustainable tourism opportunities based in nearby commu nities and tapping into the resources of the Biosphere Reserves; and help communities value protected areas through demonstrating that economic benefits can emerge from ecotourism. The partnership developed Principles and Guidelines for Sustainable Touris m for all its members and tourism opportunities, invites client feedback to both operators and the Reserve Association, and carries out member education activities, such as market-ready workshops.

Best Practice Guidelines

? Strengthen the coordination of tourism and biodiversity conservation planning government policies at both the national and local levels.
? Foster the participation of biodiversity conservation planners in meetings dealing with tourism planning and, conversely, the participation of tourism planners in discussions of biodiversity conservation issues. Tourism needs to be involved in biodiversity and biodiversity in tourism.
? Create dynamic and practical inter-sectoral mechanisms (e.g. committees) for effectively coordinating interaction between biodiversity conservation planning and tourism planning and development. Ensure that these committees have representatives not only from the government sector, but also from the tourism industry, NGOs, local communities and the universities (for an example of how this has been accomplished in a number of countries, see Box) .

Box 1: Creating a Biodiversity Conservation Planning/Sustainable Tourism Coordinating Body

Several countries have established mechanisms for inter-sectoral coordination, with varying degrees of success. In every case, it has been vitally important to set up an inter-sectoral body for coordinating activities propitiating an adequate biodiversity/ tourism interaction. These joint entities should have representatives from both government and non government institutions , including the tourism industry, local communities organisations, and NGOs. The main objectives of a Biodiversity Conservation Planning/Sustainable Tourism coordination body of this type (referred to hereafter as "the committee(s)") should be:

?   Generate economic support for conservation of natural areas (including protected areas) and for the development of sustainable tourism (including ecotourism), fostering the socio-economic advancement of local communities.
?   Establish specific training programmes for tourism enterprises and protected areas staff.
?   Contribute to safeguard natural areas from an unplanned and uncontrolled development.
?   Develop short and long term plans as a joint effort among the private sector, the government, and NGOs (including local communities).
?   Establish methods and mechanisms that may allow the active involvement of the resident human populations in the ecotourism process.
?   Strive for ecotourism to become a lucrative and sustainable activity that will foster socio-economic development.
?   Coordinate efforts of conservation NGOs (both national and international), bi- and multi-lateral development agencies, the private sector, local communities and other interested parties, so as to avoid redundancy, conflicts and confusion.
?   Compile and exchange information on biodiversity conservation planning, ecotourism and other modes of sustainable tourism.
?   Develop appropriate international cooperation within the corresponding region with the object of establishing related policies and information exchange.

It is a good idea that these committees (both at the local and national levels) have a rotating chairpersonship, so that each one of the sectors represented has an equal chance of actively participating in the operation of the committee. Every year or every other year the head of the committee would be elected by the committee members, ensuring that no sector have a representative re-elected before the rest of the sectors have already occupied the chairpersonship. This should warrant a very democratic exercise and will also favour a long-term continuity of policies, plans, and programmes of the committee, outlasting government periods.

Since it is likely that these Biodiversity Conservation Planning/Sustainable Tourism Coordination Committees, if and when they are created, will be comprised (especially at the national level) of high-ranking representatives who, due to their busy schedule, will very probably dedicate little of their time to the committee. For this reason, it is important to create an executive or operational body (a technical secretariat) that will serve the committee, carrying out the daily tasks required to achieve tangible and practical products, which will be useful to all the sectors involved. This secretariat should be composed of a small, but highly efficient staff, with much practical experience in the fields of biodiversity conservation planning and sustainable tourism development, working on a full-time basis and with a salary, paid from a pool contributed by the different sectors.

Source: Ceballos-Lascurain, 1998.

2.3   Land-use planning

Overview

Nations around the world have growing economic needs and generally growing populations. However, their land area normally remains the same and this produces many conflicts regarding use of the land and its resources.

Utilisation of land for tourism is becoming an increasing trend in many countries. It is important to ensure that national development plans contain a set of development guidelines for the sustainable use of land, water and natural resources. The development of a diverse tourism base that is appropriately integrated with other local economic activities should be promoted. The only type of tourism which should be permitted in ecologically relevant and fragile natural areas is ecotourism.

Ecotourismprovides viable economic alternatives for other activities which are less sustainable – and many times downright destructive to the environment -, such as uncontrolled logging, extensive animal husbandry, mass tourism or mining.

This may bring about conflicting interests of water supply and other vital resources between tourists, the needs of the local population, and intensive agriculture. For this reason effective national zoning plans for land use are urgently required (and of course, effective enforcement of those plans). Ecotourism should not be seen as a panacea or as a monoculture in a given area, but should be considered a complement for other sustainable economic activities that make wise use of the natural resources. All relevant stakeholders should be involved in the development of sound management plans for land-use. Means for providing the organisation, facilities and enforcement capacity required for effective implementation of those management plans should be put in place.

Specific Examples of Best Practice from Selected Countries

1) Australia: In the Shark Bay Region of Western Australia, the 1995 Shark Bay Regional Plan coordinated a World Heritage Strategic Plan, several tourism strategies and several fisheries management strategies. In order to effectively manage future development and use, the Department of Conservation and the Ministry of Planning worked together to ensure that their planning was complementary and there were no areas of conflict as regards use of land and coastal zones (Dowling and Adler, 1996).

2) Costa Rica: The *Conservation Area* is an original national regionalisation structure created by MINAE (Ministry of Environment and Energy) and SINAC (Conservation Areas National System). A Conservation Area is defined as that territorial unit governed by one and the same strategy for development and administration, where there is interaction between private activities (including tourism) and state activities on issues of management and conservation of natural resources, and where sustainable development solutions are pursued jointly with civil society. In this way, SINAC's administration covers all of the national territory (including protected areas) where exploitation of biodiversity activities and natural resources in general are promoted and regulated. Each area has a set number of protected wilderness areas (PWAs), including buffer zones. There is coordination between state institutions and civil society that carry out activities in the areas.

3) Costa Rica: As for protected areas, SINAC in coordination with NGOs, has widely invested in the promotion of the different and numerous PWAs in the country and in bettering the infrastructure for attention to the public. This effort has had its positive impact, as was shown by a recent survey on tourists' perception on international tourism but more so and especially on national tourism, as reflected by the growing number of visitors to the PWAs.

4) Costa Rica: Both in conservation areas and protected areas the ENB (National Biodiversity Strategy) establishes a line of action and top priority activities according to five-year planning periods, where the tourism sector is a key factor. In the Strategy, ecotourism with ample participation by civil society and in coordination with the government, is visualised as the top priority tourist activity to be developed and strengthened for conservation and sustainable use of biodiversity.

5) Seychelles: Strategic land use plans, incorporating environmental impact assessment (EIA), have been set up. EIA measures cumulative and broader impact of diverse human activities, including tourism.

Best Practice

? Ensure that tourism planning is undertaken as part of the overall development plan for any area (including its land-use plan), and not undertaken in isolation.
? Focus on ways in which different interests can complement each other within a balanced programme for sustainable development, enabling the different stakeholders to work alongside each other.
? Minimise negative impacts of tourism on the natural and cultural environment and promote tourism as a tool to protect important natural habitats and conserve biodiversity in accordance with the Convention on Biological Diversity.
? Ensure that, wherever tourism occurs or is liable to occur, the corresponding land-use plan should include a component of tourism land-use, carefully zoning the areas as regards the type of tourism that should take place: high, middle or low intensity. The inclusion of natural areas (and provisions for their conservation) is a vital element of any zoning plan.
? Ensure that the only type of tourism that will take place in vulnerable and fragile natural ecosystems follows the principles of ecotourism, considering it a viable option for minimising negative impacts and promoting positive environmental and socio-economic contributions. Ecotourism should always be carried out with the active involvement of the local communities.
? Foster the creation of links between natural protected areas and other ecotourism destinations by means of biological corridors that will amplify biodiversity conservation to a larger regional level.

3. Developing a Sustainable Tourism Industry: Involving the Tourism Sector in Biodiversity Conservation Planning

3.1 Basic Principles

3.1.1 Integrated Management

Overview

In every case, tourism should pay attention to the "triple bottom line": economic, environmental and social factors must be attended to simultaneously. This implies the need for integrated management and the adoption of an ecosystem approach, as advocated by the CBD. Continuous management of tourism is just as important as proper planning and development. It is imperative to provide incentives for the wide range application of environmental management systems. The only viable relationship between tourism and nature conservation is a symbiotic one. It is not enough to have a situation of coexistence and certainly nobody benefits from a conflictive relationship. Tourism management needs to form part of biodiversity management planning.

The allocation of land uses must be carefully coordinated and inappropriate activities that damage ecosystems should be strictly regulated. This may be done only by strengthening and developing integrated policies and management that cover all socio-economic activities in the different ecosystems, including terrestrial, coastal and marine zones. Management solutions are also needed for simple, but persistent, problems such as litter.

It must be emphasised that enjoyment of biodiversity and natural areas is not only for rich foreigners, but for all national inhabitants. Ecotourism is made up of visitation by both national and international tourists. The former component is usually more sustainable than the latter if a sufficient standard of living exists in the country (i.e. domestic tourists possess the financial means to visit, and consequently support, protected areas).

The different sectors must understand the tourism market for cultural and natural heritage products, and how this is linked to tourism's ability to support conservation through product demand. Understanding the experiences and products tourists are looking for, enables protected area managers to tailor certain aspects of the destination for the desired type of tourist. Accurately forecasting the amount of anticipated visitors enables planners to lobby for and develop sufficient infrastructure.

Selected protected areas (including World Heritage Sites and other areas with international protection status) should be promoted as ecotourism destinations for their biodiversity values, in those cases where tourism is allowed by their management plans.

It is important to demonstrate how the private sector can implement environmental management plans, using low cost methods first, and then use any left over money to retrofit, making the tourism facility more sustainable. It is necessary to show the large hotel chains that environmental management brings a profit. Using environmentally friendly techniques saves money for hotels and all other tourism service providers.

Specific Examples Of Best Practice From Selected Countries

1) Australia: This nation has developed a national agenda to support sustainable tourism (including ecotourism) as a tool for conserving biodiversity and for better use of natural areas. The National Tourism Strategy was formulated in 1992 to, among other goals, enhance community awareness of the economic, environmental and cultural significance of tourism. The Strategy's environmental goal is to provide for sustainable tourism development by encouraging responsible planning and management practices consistent with the conservation of Australia's natural and cultural heritage. In 1994, within the framework of this strategy, the National Ecotourism Strategy was published also by the Department of Tourism. A document called "Two Way Track: Biodiversity Conservation and Ecotourism" by Environment Australia may be useful. For full text see: http://chm.environment.gov.au/publications/biodivser_5/index.html

2) Costa Rica: In Conservation Areas (which include protected areas) the ENB (National Biodiversity Strategy) establishes lines of action and top priority activities according to five-year planning periods, where the tourism sector is a key factor, together with the other productive sectors. In the Strategy, integrated management of biodiversity resources and sustainable tourism, with ample participation of civil society and in coordination with the government, is considered as the top priority for national development. As part of sustainable tourism, Costa Rica seeks an activity where there is better distribution of resources in the different regions of the country and direct involvement of rural communities, while at the same time minimising negative environmental impacts.

3) Cuba: Following the 1992 Earth Summit,where Cuba was one of only two countries to obtain the highest rating for implementing sustainable development practices,Cuba pledged to implement Agenda 21 and carried out a constitutional amendment to protect its environment. The government set up a National Programme for Environment and Development and created a series of new institutions to continue along a course of sustainable development. The new institutions include a National Commission on Ecotourism, made up of tourism officials, environmentalists and scientists, created to ensure integrated management of biodiversity resources and tourism activities.

Best Practice

? Apply integrated management methods, within the framework of an ecosystems approach, that cover all socio-economic activities in an area, including tourism.
? Promote the benefits of conservation to the different fields of human activity, including tourism – "conservation is profitable!"
? Maximise socio-economic and environmental benefits from tourism and minimise its adverse effects, through effective coordination and management of sustainable, integrated development.
? Use integrated management approaches to carry out restoration programmes effectively in areas that have been damaged or degraded by past activities.
? Promote biodiversity conservation training for tour guides carried out by conservation organisations
? Promote exchange of information: invite biodiversity specialists to tourism meetings and tourism operatorsto biodiversity conservation meetings.
? Promote tourism activities as conservation activities within the wider conservation framework.

? Apply management tools to reduce the negative impacts of mass tourism. Environmental management systems for all types of hotels should be encouraged and/or enforced. Include environmental management into all of the tourism sector.

3.1.2 Greening Mass Tourism

Overview

We must recognise that conventional mass tourism is still the mainstream of the tourism industry and it is quite probable that this situation will prevail for some time. For this reason it is vitally important to aim our attention on mass tourism, striving to apply measures to make it more environmentally friendly and minimising its negative impacts on biodiversity.

We should not consider only ecotourism linkages with biodiversity conservation, but also linkages of mass tourism, especially the effects of big hotels on the environment and how their design and operation can become more environmentally friendly. At a global scale, perhaps providing a number of ecolodges is not going to make much of a difference– ultimately we have to affect the larger tourism industry. This means we have to consider how to improve the environmental record of very different items like airlines, airports, big amusement and theme parks, golf courses, and sports stadia.

Training to develop skills of hotel owners and operators to understand what sustainable tourism is and education about best practices are vital activities. There is a need to strengthen and to revise legislation so that this approach is well understood and widely disseminated. Environmental legislation should act as a motivation force, and also as a base for certification. Also, a widespread educational campaign so that tourists will be demanding environmentally-friendly hotels is urgently needed.

Tourism shouldn't be only market driven. In Africa, for example, people feel bad about tourism use proscribed to the community. A cause for conflict arises when developing nations are told to be sustainable whereas western countries can have the huge hotels.

It is vital to disseminate codes of ethics for conventional tourists, which will serve as a tool for alleviation of negative impacts. The effects of negative impacts are frequently long term and not always obvious in the short term.

Saving water and energy by reducing the number of towels used in hotel rooms has become a cliché – but only because notices have made a difference in hotels around the world.

In analysing mass tourism impacts, both new tourism facilities and pre-existing tourism facilities must be considered. In the former case, the application of minimal environmental standards for siting of new tourism services and facilities is urgently required. In the latter case, methods for improving the operation, making it more environmentally-friendly, should be applied, through retro-fitting or adding new, more appropriate technologies. In every case, the benefits to the tourism sector (market demand, economics, effective management) must be persuasively demonstrated.

It is not a matter of sanctions and pressuring, rather encouraging the tourism sector to become more environmentally friendly (which will result in economic benefits for them). For example, water heating in many conventional hotels around the world is currently very inefficient and costly, so that wide use of alternative energy sources should be more than welcome by mainstream tourism operations. Also, many traditional beach destinations are experiencing a loss of repeat visitors because of water pollution, so that more environmentally-friendly practices are definitely in the interest of beach resort owners and operators.

Cruise ships cause enormous environmental damage. It is estimated that they discard many thousands of tons of untreated waste into the oceans of the world every day. Strict regulations have to be applied to this type of destructive tourism.

16

Specific Examples of Best Practice from Selected Countries

1) Australia: Kingfisher Bay Resort & Village is located in Fraser Island, a World Heritage site located 250 km north of Brisbane. The site encompasses 65 ha and includes a 152-room hotel, 75 self-contained villas, a 114-bed wilderness lodge, a day-visitor pavilion, the staff village, three restaurants and conference rooms for up to 300 people. Although due to its scale not an ecolodge, Kingfisher Bay was built to strict environmental guidelines with the aim of offering a modern resort to blend harmoniously with the island's sensitive ecosystem. Before construction began, extensive environmental impact assessments were performed. Striving for a high level of environmental integration: roads and buildings were planned around the major trees to the greatest extent possible; colours reflect the surrounding vegetation; buildings are limited to two levels and are below the tree line; all timber used is from common, native species; the hotel centre complex is designed without air-conditioning; natural convention currents are created by windows and vents at the upper and lower levels of the building; impacts on the dunes and marshlands are minimised through the use of either hardwood boardwalks or wood chip walking tracks; the resort has an on-site sewage treatment plant. The design of the resort is estimated to save over 500,000 Kwh of energy each year, which is equivalent to the annual energy consumption of 100 households.

2) U.S.A.: Disney World in Florida recycles fifteen million litres of wastewater a day for irrigation of landscaping and golf courses. The company found that this method was not only environmentally wise, but also cost effective, as using municipally treated water would have been much more expensive.

3) St. Lucia: At the Le Sport Resort sewage was formerly treated at an outdated plant. In 1996 the resort created a series of wetlands, in the form of three interconnecting lagoons, that filter wastewater with aquatic plants and mesh. The filtered grey water is then disinfected further with ultra violet rays and used for irrigation on the resort's grounds. Fish in the ponds control mosquito larvae and algae. In its first year of operation, the new treatment method saved four million litres of water and thousands of dollars.

4) Canada: Several big hotels have been applying a series of environmentally-friendly practices: the Skydome Hotel in Toronto, by placing recycling boxes for glass and cans in just 70 rooms, collected 58,000 cans and 12,000 bottles in a single year; at L'Hôtel in Toronto, old bed sheets are sewn into reusable laundry bags, to replace disposable plastic bags; at the Banff Springs Hotel, a recycling programme that includes bottles, cans, paper, hangers, kitchen grease and used motor oil has cut waste by more than 85 % (Sweeting et al, 1999). By protecting the environment, there are obvious benefits to biodiversity conservation. **5) Thailand:** The Pukhet Yacht Club is a resort with a radically different approach to environmental management. The hotel's environmental committee was convinced that environmental sustainability could only be achieved through programmes that: increase environmental awareness, stress the urgent need to act due to the present state of the environment, and develop the notion of 'environmental stewardship' – a positive and caring attitude towards the environment. The main focus is on changing people's attitudes, starting with the Yacht Club staff and widening the range of influence to reach the neighbouring village communities. Waste water from the hotel goes through a treatment process using BIO-BAC which treats the water biologically. It is then used for watering the gardens. The Yacht Club estimates that per day it saves 70 m3 of water and US$70 in high season. By cards in the bathroom, guests are invited to save water and reuse towels, and it is estimated that laundry loads have been reduced by 25%.

6) U.S.A.: The Seattle Westin Hotel overhauled its entire lighting system in 1993, changing incandescent bulbs to compact fluorescent light bulbs (CFLs) and improving control mechanisms. As a result, the hotel has achieved a 66% reduction in guest room wattage with overall savings from the lighting system estimated at US$400.000 per year.

7) Costa Rica: There have been some NGO initiatives where hotels donate to the biodiversity conservation cause, through schemes like "Adopt a Reserve" and also providing opportunities for donation from tourists.

8) Canada: The city of Banff voluntarily stopped more tourism facility development by clearly establishing physical boundaries of the town, strictly limiting the depletion of the water table, and specifying a maximum height for buildings.

9) Australia: For the 2000 Olympic Games the Sydney Organising Committee for the Olympic Games (SOCOG's) mission was "to deliver the most harmonious, athlete oriented, technically excellent and culturally enhancing Olympic Games of the modern era". SOCOG used its best endeavours to set a new standard of environmental excellence for organising and staging a large sporting event. To this end, SOCOG was committed to strict environmental guidelines, guided by the principles of Ecologically Sustainable Development (ESD). Environment was considered by the organisers as the "third pillar of Olympism". Among the major environmental achievements were: the SOCOG Environment Programme was established in 1996, early enough to allow sufficient time for staff to be integrally involved in planning; carrying out of the Olympic Greenhouse Challenge, a major project to assess the greenhouse impact of the Games for minimising greenhouse gas emissions; a programme of environmental education (including a waste education plan) as a component of staff training; an environmental specification for sponsors, licensees and suppliers; an integrated waste management solution; packaging and foodware specification to control inputs into the waste stream; an Olympic Results Information Service (ORIS), an electronic system which reduced the huge amount of paper required to provide media with results; saving water and energy at all Olympic buildings and facilities; facilitating access of spectators through public transport, resulting in energy conservation and pollution and greenhouse gas avoidance; Olympic merchandise had minimal packaging and minimised the use of PVC. Official Web site: www.sydney.olympic.org/

Best Practice Guidelines

? Devise schemes for having big hotels collaborating with protected areas and the local communities.
? Encourage linkages between all-inclusive resorts and local enterprises, e.g. local food suppliers, daily bazaar, local excursions, etc. Promote symbiotic relationships between big hotels and smaller tourism suppliers, including small lodges.
? Avoid isolation or enclaves and have tourists be in contact with the social and natural environment (when desired by the community). Define criteria to assess the type of operation of the all-inclusive resorts and analyse how they benefit the destination.
? Encourage collaborative research on the impacts, promotion and incentives of mass tourism.
? Enforce current environmental laws, regulations and norms on waste management, air pollution and monitoring devices.
? Review and, if necessary, re-define and/or strengthen standards related to room densities and building heights, avoiding excessive concentrations. This has to be a decision made at the local level.
? Apply the "polluter pays" principle…payment must equal damage done (however, it is important to have in mind that sometimes the environmental damage is irreversible - if a species goes extinct no payment will compensate for the loss).
? Take measures to prevent more construction when a destination is being overbuilt. Use EIA and planning to limit building in environmentally sensitive areas.
? Educate the private sector regarding environmental guidelines. Capacity building for hotel owners and managers is essential.
? Create a widespread environmental awareness (including the importance of biodiversity) on the wider public; also, try to interest the mass tourism market in nature-oriented tourism activities and encourage them to chose environmentally-friendly natural goods, instead of artificial products.
? Where overcrowding occurs, use tools such as diversification of products to attract tourists to a variety of attractions.
? Apply strict environment principles in organising large-scale sporting events.,

3.2   Applying Environmental Tools

3.2.1   Minimising Negative Impacts

Overview

Overcrowding, misuse of natural resources, polluting of air and water, the construction of infrastructure and facilities, and other activities associated with tourism, all produce impacts on the environment. These impacts may be not only physical, but also cultural.

Negative impacts of tourism vary according to the nature and number of tourists, the type of physical facilities and the way tourism is managed. The individual tourist normally has a relatively small impact. Problems arise, however, if the number of tourists is large or the resource overused. Thus although tourism can be a lucrative source of revenue for a country, a tour operator or a specific destination, it can also represent a cause of serious damage to the environment, including the biodiversity resources.

Tourism impacts on the environment are manifold: impacts on geological exposures, minerals and fossils; on soils; on air and water resources; on vegetation; on animal life; on sanitation; on the cultural environment; and aesthetic impacts on the landscape. These different impacts, which are actually manifestations of change on the environment, rarely occur singly and their ecological effects are usually very complex.

There are different ways of minimising negative impacts of tourism: through widespread environmental education of tourists and the tourism industry, through strict enforcement of laws and regulations, and through effective visitor management. Visitor management begins before arrival, then occurs on the ground at the site, and finally after the visitors leave through continual communication.

The process of environmental impact assessment (EIA) is one of the most effective methods for determining whether a project will be sustainable, and if so, for developing safeguards to ensure its continuing sustainability. EIA aims to ensure that the likely outcomes of any development (including tourism developments) are addressed at an early stage so that disastrous environmental and social consequences can be avoided. EIA applied to tourism projects should play a crucial role in government-decision making in every country.

Specific Examples of Best Practice From Selected Countries

1) Ecuador: The Quito-based tour operator TROPIC Ecological Adventures and the Huaorani people have worked together to design a trip to the community. In order to limit environmental and cultural impact to acceptable levels, they have set a limit of eight guests once a month. (Drumm, 1998).
2) Australia: The 19-level Novotel at Homebush Bay in Sydney was built for the 2000 Olympics. A commitment to principles of ecologically sustainable development (ESD) meant that the building set new standards for high-rise hotel accommodation. The hotel purchases 100 % green power, saving 1200 tonnes of carbon dioxide emissions each year. More than 400 m² of solar collectors power one of Australia's largest solar hot water systems, reducing energy consumption by up to 40 %. Environmentally-minded designs include toilets with recycled water and waste separation at the room cleaning stage. Web site: www.oca.nsw.gov.au/
3) UK: On the island of Jersey, a group of hotels and rental car agencies are promoting the use of sustainable technology by encouraging the rental of electric cars (as a substitute for fossil fuel-powered vehicles). At five of the island's hotels, guests can rent the RAV4 EV (a Toyota electric vehicle) for the same cost as a mid-size car. At the end of the day, guests can plug in at the hotels to recharge their vehicles (Sweeting, 1999).

Best Practice Guidelines

? Prepare the tourists before they arrive. Whether you are a protected area manager, a tour operator or a hotel manager, prepare travellers (before departing from their home) to minimise their negative impacts while visiting the corresponding tourism destination, by providing introductory information on the people and ecosystems to be visited in pre-departure packages (including use of the Internet).
? Minimise visitor impacts on the environment by offering the tourists on site briefings, appropriate literature, leading by example, and taking corrective actions. Apart from providing detailed information

on the natural and cultural environment (brochures, field guide books, check lists), provide a set of environmental guidelines specific to the area being visited.

? Contribute to provide widespread environmental education and ecological awareness to the public sector at large (including tourists, the tourist industry and the local communities). You must deal with a wide spectrum of tourists who have different levels of knowledge and cultural traits. Minimise their impacts through education.

? Prepare guides in natural areas, so that they know how to handle and educate tourists. Teaching of environmental sciences, local culture, interpretative skills, foreign languages, and first-aid are particularly important.

? Generate an emotional and spiritual connection for the visitor. Community members working as greeters and interpreters can go a long way to inspiring visitors to act responsibly, and helps visitors to better enjoy and value the destination.

? Distribute pamphlets at key entrance and distribution areas (hotels, airports, petrol stations, etc.), not only at the destination site. All information material should include a section on local regulations, threats to local biodiversity, and required tourist behaviour (including respect to local cultural traits).

? Avoid introduction of alien species, both vegetable and animal, by appropriately informing tourists and performing routine inspections. Recommend tourists (especially in natural areas) to keep their equipment clean. In areas where hunting is permitted, advise hunters on use of appropriate technology, e.g. steel shot/bullets instead of lead.

? Identify beforehand the possible negative tourism impacts in your area, and what resources could be impacted. Carry out periodical base-line inventories of biodiversity and other natural resources (in the case of seasonal tourism, before and after the tourism period). Characterise the fragility of the ecological and socio-cultural components.

? Carry out on-going monitoring of impacts, so as to reassess position/status using monitoring data. The best method for enforcement is community based monitoring and enforcement. Also have tour operators monitor and report illegal activities. Monitoring responsibility should not just fall on the government.

? Share success stories with neighbouring communities. This way, cooperation is generated, and increasing regional tourism effort becomes more economical (through economies of scale). Also, social stewardship is encouraged.

? Ensure that environmental impact assessment (EIA) is applied to every tourism development project, especially as regards impacts on the biodiversity of the corresponding site and region.

3.2.2 Zoning

Zoning, a vital component of land-use planning, is the process of applying different management objectives and regulations to different parts or zones of a specific area. Zoning is a tool required in any land or water-use plan (including marine, coastal and fresh water areas) and should always be used to regulate utilisation of the land and water resource over the long term.

Zoning should be applied at all the different levels: national, regional and local. In the first case, zoning plans should be carried out by government authorities at the highest (e.g. federal) level. In every case, zoning must be comprehensive, considering the different socio-economic activities (obviously including tourism, when it occurs) , but also natural areas which should be left undeveloped. Zoning plans should solve conflicts of interest with water supply and other vital resources, including biodiversity. Understand that some areas of relevant biodiversity should be conserved for their own value and that not all relevant biodiversity zones should experience visitation. Biodiversity has is own value.

As regards tourism, it is important to have a zoning scheme which should cover the different possible tourism activities. A good example of a comprehensive tourism zoning plan includes the following specific zones:
a) Strictly protected zone (sometimes called "sanctuary" or "absolute reserve" zones), where the presence of all types of tourists and tourist infrastructure are strictly prohibited.
b) Restricted tourism zone (sometimes called "wilderness" zone), where access is allowed only to a limited number of tourists, usually on foot (or, in some cases, by rowboat).
c) Moderate tourism zone, where visitors are encouraged to carry out diverse low-impact activities compatible with the natural and/or cultural environment.

d) Semi-intensive tourism development zone, which should always be an area of limited extent (especially when near environmentally-sensitive natural areas), where some moderate-impact facilities are included (e.g., ecolodge, visitor centre, limited parking areas).

e) Intensive tourism development zone, which should only occur in highly popular mass tourism destinations (e.g. beach resorts, ski resorts, amusement and theme parks), where a considerable degree of concentration of tourists and tourist facilities take place. Obviously, in ecotourism destinations (especially in protected areas), there is nor room for this zoning category. But, even in the case of mass tourism destination areas, planning should endeavour to minimise negative impacts, including pollution of air, water, and soil resources (Ceballos-Lascurain, 1997b).

The different zones indicate where and what type of physical infrastructure and services should be provided, by means of a clear categorisation of modality and intensity of land use (and use of natural water resources and other natural resources), striving in every case to minimise negative impacts on the natural and cultural environment, as well as optimising the ecotourists' experience. Zoning also indicates to us where facilities, activities or services should not be developed. In essence, a zoning scheme shows the development suitability of the different portions of a site. Remember that those activities which are carried out in each zone are normally mutually exclusive (and often conflictive), so that zoning decisions must be taken very carefully.

Allow diversity through wise zoning of tourism activities, providing tools so that people (both locals and tourists) can decide upon which zone they fit into (or they prefer to visit) and then follow the regulations related to their zone.

Specific Examples Of Best Practice From Selected Countries

1) Egypt: The Ecotourism Master Plan for the southern coast of the Red Sea in Egypt, carried out in 1997 for the government of Egypt, comprised a careful zoning scheme, including strictly-protected, restricted, moderate tourism and semi-intensive tourism zones. The objective of the Master Plan was to provide a sustainable tourism development model for a strip of 215 km in the southern portion of the coast, very different from what has been occurring in the central part of the Red Sea littoral, where unplanned and uncontrolled tourism development is causing all kinds of environmental catastrophes. The Master Plan is being enforced, and includes the development of four ecolodges (Ceballos-Lascurain, 1997b).

2) Australia: The Government of Australia has demarcated seven different use zones along the Great Barrier Reef, each of which permits and prohibits a range of activities. These zones include General Use A and B, Marine National Park Buffer, Scientific and Preservation, and Periodic Restriction. Permissible activities range from commercial fishing to non-consumptive uses to exclusively research-oriented activity. Zones that permit heavier use function as buffers for zones designated for greater protection (Sweeting et al., 1999).

Best Practice Guidelines

? At the national level, zoning plans should be carried out by competent, specialised staff working for the government planning authority.

? In order to appropriately carry out a zoning plan (at the different levels), you should consult with professionals and technicians of different areas and field expertise. In particular, consider interdisciplinary teams integrated by experts in regional and physical planning and design (architects, landscape architects, planners, engineers) and specialists in natural and cultural resources (biodiversity conservation planners, ecologists, biologists, geographers, anthropologists, archaeologists).

? Also consult with the local people who generally have a good knowledge of the area.

? Have each one of the proposed zones correspond to a specific tourism management plan, always in accordance with administrative objectives of the surrounding natural and cultural ecosystems.

? For each of the zones, analyse aspects of density related to buildings (when allowed in the corresponding zones) as well as to use.

? Examine relative merits of concentration vs. dispersion, remembering that natural landscape values can normally be best conserved if the physical plan is carefully dispersed but also, inversely, having in

mind that by concentrating buildings and other structures (in the semi-intensive and tourism development zone) you leave more available undisturbed natural zones. Again, the challenge is striking the right balance.

? To avoid "islands of biodiversity" establish ecotourism corridors between natural protected areas that will act also as biodiversity conservation corridors and buffer zones. Provide for these ecotourism corridors to be taken care of mainly by local communities and tour operators, for their own benefit.

? Whenever possible, make sure that all roads leading to protected areas have a special roadside enforcement, regulating development along the road (in a wide enough strip) and enhancing attractiveness of landscape for tourists.

3.2.3   Carrying Capacity and Limits of Acceptable Change

Overview

Environmental carrying capacity is the capacity of an ecosystem to support healthy organisms while maintaining its productivity, adaptability, and capability of renewal.

Tourism carrying capacity is a specific type of environmental carrying capacity and refers to the carrying capacity of the biophysical and social environment with respect to tourism activity and development. It represents the maximum level of visitor use and related infrastructure that an area can accommodate. If it is exceeded, deterioration of the area's environmental resources, diminished visitor satisfaction, and/or adverse impacts upon the society, economy and culture of an area can be expected to ensue.

The basic components of tourism carrying capacity are: biophysical, socio-cultural, psychological, and managerial.

Over the last decade or so the tourism carrying capacity concept - and several related methodological tools - have been heavily criticised as being oriented excessively towards quantitative considerations. Critics insist that, more important than arriving at a magical number of allowed visitors in a specific tourism destination, we should be looking more at qualitative effects of visitation and management tools. In their opinion, the carrying capacity concept is hampered by the lack of a clear and predictable relationship between use and impact.

In that sense, alternative methodologies, such as LAC (Limits of Acceptable Change) and VIM (Visitor Impact Management) have been developed (especially for relatively undisturbed natural areas. The shift in attention from an appropriate use level to the desired condition is the basis of LAC's revised approach to visitor carrying capacity. The LAC approach concentrates on establishing measurable limits to human induced changes in the natural and social setting of a specific area, and on identifying appropriate management strategies to maintain and/or restore desired conditions. VIM, developed by the National Parks and Conservation Association of the USA, is a technique for assessing and managing the environmental and 'experiential' impacts of increasing numbers of visitors to natural areas. VIM recognises that recreational impacts on the environment and the quality of the recreational experience are complex and influenced by factors other than use levels.

Traditional carrying capacity methods as well as LAC and VIM techniques are all management tools for minimising negative environmental impacts. For information on these techniques consult the following references in Appendix III (Annotated Bibliography): Stankey, G.H. et al. 1985; Graefe, A.R., F.R. Kuss, and J.J. Vaske. 1990.

Specific Examples of Best Practice from Selected Countries

1) Botswana: Tourism in the north and northeast portions of the country (mainly wild life watching) is considered to be approaching its carrying capacity limits. An ecotourism strategy is being developed which aims at product diversification by identifying product components in new geographical regions, in particular

the parks in the centre and south of the country with their still under-exploited potential for wildlife and wilderness oriented tourism.

2) Costa Rica: Due to the increase of daily visitors in the late 80's to the Monteverde Reserve, when the situation got out of hand, a restructuring of visitation, with the aim of not permitting the carrying capacity of the reserve to be exceeded had to be carried out in 1991, limiting visitors to only 100 at a time (later raised to 120) and restricting most tourists to well-marked trails through only about 2% of the reserve. In addition, more naturalist guides were hired and trained, and entrance fees for foreigners were sharply increased to US$23, including a guided tour and a slide show, in hope of curbing the number of visitors, especially those on package tours.

3) Costa Rica: As regards overall visitation to the protected natural areas system, the 1994-95 period showed a decrease in the number of foreign visitors due to, among other things, increased admission fees, a move meant to control the number of visitors, as this was considered to be exceeding the carrying capacity of some of the protected wilderness areas. Fees were reduced afterwards, which has resulted in moderate recuperation of visitation numbers.

4) Trinidad & Tobago: The Tourism and Industrial Development Company TIDCO has been assigned responsibility for a group of internationally funded projects that are of strategic importance for the competitiveness of the tourism industry. Under the direction of TIDCO, an IDB-funded Carrying Capacity Study was undertaken to provide the basis for policies and plans for tourism development on the North Coast of Trinidad.

Best Practice Guidelines

- ? Decide on which method for minimising tourism impact you will apply for your specific case: carrying capacity, LAC, VIM or a related technique (or an adaptation or combination of several of them).
- ? In every case, start off by identifying your area's concerns and issues.
- ? Define the different types of tourism experience that you wish to accommodate in your area (a wilderness experience, 'soft' nature walks, contact with local culture, trekking, biking, etc.).
- ? Select indicators of resource and social conditions and specify standards for these indicators.
- ? Identify management actions for the different types of tourism activities, providing alternative actions when unacceptable environmental changes produced by tourism impact are detected.
- ? Implement actions and established on-going monitoring.
- ? Use visitor surveys to assess the success of the visitors' experience. There are various tools to achieve a quality experience, e.g. zoning. Understanding of different requirement of different visitors in what they are looking for in an experience. This is all part of niche marketing. Quality experience is often associated with increasing price paid.
- ? Regardless of the methodology chosen, impose strict regulations as regards tourist numbers in certain critical destinations (such as areas with a high biodiversity vulnerability or a high cultural fragility).

4. Active Involvement of Local Communities

Overview

Since tourism is a complex and multi-sectoral phenomenon, it is evident that the local communities should always be considered as a vital sector actively participating in the tourism process of the corresponding region. In every case, it should be the community's own decision to actively participate or not in the tourism process.

 Cultural shock (in both directions: from tourist to community and from community to tourist) should be avoided at all costs. This is a very complex issue, which should include the careful consideration of cultural issues, undertaken by social scientists and anthropologists.

It is important to recognise that the development impact of tourism will not be uniform: it will vary widely within and between communities. Enhancing the livelihood impacts of tourism does not mean simply maximising the number of tourists or tourism developments, or maximising wage income; a wide range of costs and benefits need to be taken into account. Benefits should be considered on a long-term perspective, so as to achieve sustainability. It is as important to address negative impacts as to maximise positive ones and to address impacts on people's assets and existing activities, not just direct contributions to household income and security. In every case, tour operators should make long-term commitments to communities.

Careful planning and design, based on an understanding of local livelihoods, can greatly enhance the positive impacts of tourism. Maximising livelihood benefits needs a good understanding of what people most need and want (their livelihood priorities) and of the complex ways in which tourism options affect livelihoods (direct and indirect livelihood impacts). This requires a considerable role for local people in decision-making. This can be done either by delegating tourism rights to community level, and helping communities with participatory planning (a "bottom-up" approach); or by ensuring that government planning processes are participatory and responsive to local needs; or by ensuring, through government incentives, that planning by private entrepreneurs is responsive to local needs. The *details* of how to enhance livelihood impacts are location-specific. The *principles* of recognising that a range of livelihood concerns are important, and supporting systems that enable local people's priorities to be incorporated into tourism decisions, can be generally applied (Ashley, 2000).

Recent research shows that growing numbers of tourists would like more meaningful contact with local communities, including informative interactions. Diversifying to meet this demand could provide low-cost economic opportunities for local people, creating a more rounded and sustainable tourism product.

Envision ecotourism as a motor for local sustainable development and a job generator. It is vital to reach agreements between tour operators and the community so that the community is a member of the organisation and has ownership over the process. Don't see ecotourism as a monoculture or panacea; it should always be envisioned as a complementary component of other activities.

The local community must come to value nearby natural areas (including protected areas) before it will protect them. Management and stewardship by the local community is an important part of education and vital to the long-term survival of the resource. It will also contribute to raise pride regarding the local heritage. In many rural areas around the world, local inhabitants have shifted from being hunters to serving as park rangers or ecotourist guides.

Specific Examples of Best Practice from Selected Countries

1) Canada: Aboriginal people have played an important role with Parks Canada in the establishment of new protected areas recently, particularly in the north. Approximately 1/3 of Canada's 39 National Parks have cooperative management boards. Aboriginal communities are important service providers to visitors. Through jointly developed tourism strategies, there are many opportunities for Parks Canada and Aboriginal people to promote authentic visitor experiences. Parks Canada created the Aboriginal Affairs Secretariat in 1999 as part of Canada's Aboriginal Action Plan (Gathering Strength). It is partly intended to identify economic opportunities associated with National Parks for the benefit of Aboriginal Communities and Parks Canada. Aboriginal people also participate in environmental assessments and review panels, in a national Traditional Indigenous Knowledge and Biodiversity Working Group developed to assist with Canada's implementation of Article 8j of the Convention on Biological Diversity.

2) Namibia: In 1999, the Lerato company started negotiations with a number of Namibian conservancies to develop several 10-bed lodges in Namibia and elsewhere in Southern Africa. Conservancy representatives and advisors came together to assess the proposals. They identified many problems, such as lack of clarity on the size and exclusivity of proposed areas, risk, no proposals for joint management or local training, risk of environmental damage, and Lerato's 'domineering attitude'. They made a counter-proposal of the kind of issues they would like to see reflected in a contract, which offers insights into the benefits the communities seek from tourism on their land, and the disadvantages they seek to minimise. Main themes were: major community concerns about issues on control, partnership, land-use, environmental management, and securing their future (Ashley, 2000).

3) Namibia: Between 1994 and 1996 residents of the Bergsig area were involved in negotiations with two different tourism investors, who wanted to set up luxury lodges. The Residents Committee negotiated two joint ventures but decided to proceed with only one, for a 16-bed tented camp. The other offer, for a small exclusive lodge was discussed for three years, reached the point where the company said it must be "yes or no", and the community decided not to go ahead. The prospect of high cash returns was outweighed by a number of disadvantages in the eyes of the community: it was considered a high risk, involved keeping people and livestock out of a much larger area, and involved a much longer commitment (Ashley, 2000).

4) Seychelles: Local legislation specifies that there must be local partners in any tourism business, and that licensed-out services (e.g. boats, outfitter equipment) must hire a minimum specific percentage of Seychelles citizens.

5) Ecuador: The Cofan Community Ecotourism Programme in Zabalo (Cuyabeno Reserve) is a good example of a self-managed ecotourism enterprise, carried out by an indigenous group in the Amazonian region. A previously isolated area, in the early 80s market economy set in, brought about by the first foreign ecotourists coming to the region, producing a dramatic change in the community. As a response to this crisis the Cofan people began a search of optional activities that would assure their subsistence. Several productive initiatives were considered: exploitation of medicinal plants, extracting foodstuffs from the forest, but these ideas were soon after discarded, since they seemed not to comply with proper sustainability criteria. The only alternative that seemed promising was ecotourism. Canoe trips started to be offered to backpackers adventuring into the area. Early on, it was seen that the cultural aspects appealed to visitors as much as the natural features of the area, so that anthropological and ethnical components were emphasised in the planning of the tours. Little by little, the operation grew. Rustic cabins for tourists were built alongside the Aguarico river, not inside the Indian village but about one mile further downstream at the opposite bank, as well as a small ethnic "museum". A strict zoning scheme has been set up, including areas with a 60-kilometer network of nature trails for tourists (guided by the local Cofanes), strict natural areas, and subsistence hunting precincts solely for the local community. The more rare and attractive wildlife species (i.e., macaws, hawks, eagles, waterbirds, wild felines) are especially protected since they are recognised as main assets for the ecotourism operation. The tourism activity is managed directly by the local council, who operates the community funds. In 1999, their total revenues were reported at US$120,000 (Ceballos-Lascurain, 2000).

6) South Africa: The Simunye Zulu Natural Heritage Site (KwaZulu Natal) constitutes a very interesting ecotourism experience, combining ecolodge and tribal village seemingly in holistic harmony. Simunye's virtues lie not only in its unique physical facilities (which, although rustic, are of a very high architectural quality), but in its overall concept of ecotourism development and operation, which is conceived as an effective mechanism for sustainable development and integration of local communities. In the mid 90s, a "white" Zulu within the community had the idea of developing a sustainable development programme, based on the criteria of active communal participation and valuing of local cultural traditions. In this way the Simunye Ecotourism Project was launched, and a rustic lodge was built alongside the village. A very impressive interaction has been achieved between the tourists and the local community. The villagers arrive at night to the lodge and begin, under the stars and by the light of a campfire, a series of ceremonial dances and chants, in which the tourists are not passive spectators but are invited to actively participate. This practice has meant recovering the pride and dignity that come from reviving and revaluing tradition and sharing it with foreign visitors. For Simunye, ecotourism is something more than extracting dollars from rich foreign visitors. There is a mutual process: the ecolodge gives benefits and added value to the village and the village provides the lodge with added value (Ceballos-Lascurain, 1997a).

Best Practice Guidelines

? When planning an ecotourism development, the first question to the local community should always be: Do you want ecotourism to take place in your area? But do not just ask, provide information on potential negative and positive impacts. Also discuss this in the context of other sectors (e.g. agriculture). Be respectful of their decision.

? Analyse with communities the feasibility of tourism activities for their sustainability. Give them enough time and capacity so they can discuss the key issues. Have the community share operational duties with the tour operator. Ecotourism projects should strengthen community organisation.

? Always apply participatory planning and self management principles to tourism development. Ensure that traditional local resource managers are given statutory rights over the areas that they manage. People need clear legal rights over the area that they live in before tourism which benefits them and conservation can take place.

? Encourage capacity building and empowerment for local communities.

? Foster links between all-inclusive resorts and local enterprises, e.g. local food suppliers, daily market place, local excursions, etc. Promote symbiotic relationships between big hotels and smaller tourism suppliers, including small lodges. Avoid isolation or enclaves and have tourists be in contact in social and natural environment (when desired by community).

? Recur to social scientists and anthropologists (especially those with long local experience) for advice in developing activities and products that will be acceptable and useful to the entire community, e.g., participatory dances and ceremonies, local arts and crafts, regional foods, etc. The product needs to move beyond being a simple merchandise, serving the tourists as being part of their travel experience.

? If they are in agreement, foster the active participation of indigenous people in the ecotourism process in such a way that they obtain tangible socio-economic benefits and also, they contribute to the ecotourist's experience.

? Minimise traveller impact on local cultures by offering appropriate literature, briefings, leading by example, and taking corrective actions.

? Develop educational and environmental awareness campaigns and training programmes among the local communities that also include understanding what tourism is about (including positive and negative effects of tourism in local communities). The best ecotourism guides usually turn out to be the local people (with the right training).

? Give opportunities to the local people for communicating to the tourists their traditional perception of their environment.

? Carry out training programmes for tour operators who are working with the local community in order to minimise cultural shock and negative impacts.

? Diversify tourism experiences. Consider ethnic tourism and agrotourism as excellent complements of ecotourism and conventional tourism.

? Define whether employment or ownership will give the greater beneficial impact to the community (especially in the first stages of tourism development). Encourage both direct and indirect benefits from tourism, e.g. selling of handicrafts, local language teaching, etc.

? Encourage and/or facilitate financial support (especially micro-credit schemes) to communities over realistic time periods. Firstly, start-up grants need to be made available. Soft money will be a useful tool for economic support but it needs to come with a programme of education based on financial management. Ensure that independent and financially sustainable community businesses are supported by government promotion of tourism. Simplify forms for obtaining micro-credits. Micro-creditors still need to be paid if the business fails. A safety net needs to be developed.

? Develop schemes for identifying environmental and social capital (what could be termed 'environmental/social economics'). Transfer consumptive and non-consumptive values to general national accounting. Recognise that tourism is a foreign exchange activity, therefore communities promoting tourism should be eligible for international financing at the same

5. Developing Ecotourism

Overview

5.1 Converting Ecotourism into a Key Segment of Sustainable Tourism

Ecotourism is that segment of sustainable tourism which is related to visitation of relatively undisturbed natural areas, including protected areas[5]. Although no precise figures exist, it has been estimated that

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[5] For the official IUCN definition of ecotourism, see Appendix II Glossary.

probably around 15 or 20 % of all international tourism is ecotourism. The rate of growth of ecotourism and other nature-based tourism activities seems to be the highest of all tourism segments, maybe around 15 % per year (Ceballos-Lascuráin, 2000).

By definition, ecotourism is a tool for conservation of natural and cultural resources (including biodiversity) and an instrument for sustainable development, especially in rural areas.

Undoubtedly, biodiversity conservation planners around the world should focus on ecotourism as an important ally in their struggle for preserving the natural environment. It is the biodiversity resource base which mainly attracts an ecotourist to a destination, but this use of the resource is a non-consumptive one.

We need to know how current ecological resources are being used, if this use is sustainable, and what are future options for use. An understanding of potential conflicts is essential. Current land and sea resource use and livelihoods must be carefully examined.

It is important to have in mind that many tourists like to combine ecotourism with conventional tourism activities. An interesting and appealing mix will also attract more mainstream tourists to ecotourism practices.

5.2 Developing an Inventory of Ecotourism Attractions

Biodiversity conservation planners and protected area managers should ask themselves: "What do we have in this particular natural area that will interest tourists?" For this reason, it is indispensable to develop a systematic and categorised inventory of the ecotourism attractions found there. Ecotourism attractions may be divided into three categories: focal or flagship attractions (which provide the main reason for visiting an area), complementary attractions (they give added value to the area and encourage a longer stay for the tourist), and supporting attractions (the physical facilities and tourist services found in that place). The two first categories correspond to the natural and cultural heritage of the area. The latter category facilitates visitation to the area (Ceballos-Lascuráin, 1998).

An ecotourism inventory is not equivalent to an exhaustive scientific inventory of all the biodiversity resources in a given region. It is rather a selection of those most attractive elements of the biodiversity resource base (and other natural and cultural components of the area) which you want to market, and which should be the base for your promotional activities. But ultimately, the goal is that by promoting ecotourism to your natural area, you will be contributing to conserve the whole environment.

5.3 Integrating Ecotourism into Protected Areas Management Plans

In those protected areas where tourism is allowed, the management plan should include a section on ecotourism activities, clearly specifying, regulating and zoning these activities.

Through ecotourism, park managers can:
- increase direct income – by higher admission charges and other fees,
- help create an environment in which local tourism businesses can thrive,
- offer local people new employment opportunities in the protected area or nearby.

Many protected areas need assistance in improving visitor management. For tourist management plans to be realistic, a method for determining 'acceptable change' due to tourist use must be developed (see Section 3.2.3). The agreed indicators and limits will then be used for monitoring and taking the required management measures.

A tourism management strategy for a protected area implies carrying out a research on the market segments you wish to attract.

5.4 Ecotourism's Contribution to Biodiversity Conservation and Rural Sustainable Development

Ecotourism can contribute to biodiversity conservation in many ways. Firstly, by providing environmental education and ecological awareness to the different sectors involved: domestic and foreign tourists, local communities, local authorities, and the tourism industry itself.

Ecotourism also provides economic value to biodiversity resources, so that all stakeholders involved will be vitally interested in conserving biodiversity.

Ecotourism may foster the creation of fruitful links between tour operators and conservationist groups and universities. Ecotour guides frequently provide vital information on distribution and breeding patterns of certain rare and endemic species (particularly birds and mammals) and also report environmental damage or resource misuse. Many times ecotour operators and their clients participate in specific conservation tasks: reforestation with native species, cleaning up garbage, etc. Of course, this implies carrying out continuous training programmes among the tour operator's staff (especially their guides).

Each protected area or other natural areas with ecotourism use should include in their management plan a good interpretative programme, that will aid visitors in understanding the local ecosystems and the interaction between humans and the natural environment. This programme should be of a holistic nature, presented in an attractive and didactic fashion, addressed to different educational levels: adults, children, local inhabitants, tourists, etc. As a part of the interpretative programme, a good interpretative centre is required in most ecotourism destinations (including protected areas). Always maintain the functional nature of interpretation facilities.

Apart from the destination level, other adequate information/communication resources for interpretation should be widely deployed to support ecotourism and other forms of tourism. Research shows people generally do not want expensive and sophisticated visitor (interpretative) centres (e.g. El Yunque in Puerto Rico), but instead prefer simple (and economical) options such as information labels, trail signs, and hides (blinds) for viewing wildlife.

Specific Examples of Best Practice from Selected Countries

1) Costa Rica: This small, Central American country has earned a well deserved reputation as one of the leading ecotourism destinations of the world, and has been a pioneer in many ecotourism practices. Most national parks and private reserves include ecotourism planning and management as a key component of their management plans. **Over the last 15 years or so, tourism (with a strong ecotourism emphasis) has been one of the two main foreign exchange earners of the country, and it is widely recognised that this has considerably helped conserve the rich biodiversity of Costa Rica.**

2) Costa Rica: The Ecotouristic Shelter La Catarata is managed by a private family association. Five families, originally dedicated to farming, participate in the project. In view of plummeting prices of their main agricultural products in the mid 90s they decided to create an association for environmental protection and sustainable development of their region. The project includes cabins for ecotourism, a butterfly garden and a *tepezcuintle* (spotted paca) zoo-breeding farm. At present, the project generates income from visitors' payment for food and lodging, as well as from guided visits to a nearby waterfall and the sale of butterflies and medicinal plants and derived products. The cabins generate enough income to pay salaries and for repayment of loans.

3) Costa Rica: **The Monteverde Cloud Forest Reserve is a long standing success story in the annals of ecotourism.** Originally this private reserve was intended for research and protection, not tourism. By the mid 70s ecotourists started arriving in considerable numbers. Growth of the tourist offer (lodging, food services, transport and support services) not only promoted investment in infrastructure and services, but also stimulated and increased conservation efforts bringing about the creation of new natural reserves, public and private, and new tourist attractions (such as butterfly farms, an orchid garden and canopy tours); it was also

the catalyst for undertakings in organic farming and adequate waste management. By 1995, Monteverde generated 18% of the total tourist income at national level, and, although there are no new statistics available, it is thought that this figure, far from having diminished, has been maintained and probably has increased. New tourist products such as the Sky Walk and Sky Trek (systems of suspended bridges over the forest) and gardens for observing hummingbirds have provided added value and are generating much employment, and have also prompted the tourists to stay one more day on the average, which has a positive effect on food and lodging services. Over 50,000 tourists visit the reserve every year. At present, Monteverde remains a must for the nature-loving tourist thirsty for knowledge on tropical ecosystems.

4) South Africa: **Kruger National Park (KNP) is the most celebrated and most visited of South Africa's protected areas.** Within its nearly 2 million hectares of bushveld, a series of sustainable activities are carried out: ecotourism (mainly wildlife watching), environmental education, captive breeding of rare species, habitat manipulation, environmental and conservation management, and research and monitoring programmes. Community development forums are regularly carried out between the Social Ecology Department of South African National Parks (SANP) and neighbouring communities. Preferential purchasing of products from local rural entrepreneurs and black-empowerment companies is carried out, as well as facilitation of entrepreneurial activities which financially benefit the local communities and the park. The Makuleke people have recently regained ownership of a piece of land within KNP from which they were forcibly removed in 1969. They have full rights to commercialise this land but it will be managed according to the KNP master plan. A number of community associations have been developed, economic partnerships are being investigated and training of the people is taking place.

5) Venezuela: Hato Piñero, a private reserve in the Llanos (originally a cattle ranch) has become a well known destination for international ecotourists (especially US bird watchers). The family who owns this large property decided to conserve a major proportion of the land in its natural condition, converted some of the ranch facilities into tourism lodging facilities and now, apart from the traditional cattle raising activities, ecotourism has become a prime source of income and has generated many additional jobs.

6) Mexico: Soon after Sian Ka'an was declared both a Biosphere Reserve and a World Heritage site by UNESCO, **an NGO called Amigos de Sian Ka'an ('Friends of Sian Ka'an) was set up, to serve as a collaborating agent of the Mexican government** in the conservation and sustainable use of the valuable resources of this tropical area, containing extensive marshlands, mangroves and forest. Ecotourism has become a key part of Amigos' activities and it provides an important funding source for the reserve and the local communities. Tours by foot and by boat, guided by local people, are offered to the national and foreign visitors.

7) Mexico: **On the lower slopes of the Ajusco Mountain, just south of Mexico City, Parque San Nicolás Totolapan was created in 1998. The park is an experiment in Mexico's growing ecotourism trade**. Two thousand visitors, almost half of them cyclists arrive each week. Many take guided trips led by residents of the nearby settlement of San Nicolás, or stay in the camping areas. The locals, most of them farmers, hope the work will help pay their bills. Environmentalists hope it will encourage conservation at the grassroots level. For more information see: www.planeta.com/

Best Practice Guidelines

? Encourage tourism authorities to prominently include ecotourism in their planning schemes and promotional campaigns.
? Distinguish between a purely scientific inventory and an ecotourism attraction inventory, i.e. what you want to market, what you want the tourists to actually see. Define what part of the biodiversity resource base in your specific area can handle visitation.
? Develop ecotourism attraction inventories in a systematic and categorised way, clearly identifying focal (flagship), complementary and support attractions. These inventories are the base for your promotional and marketing efforts.

? Clearly define the type of ecotourism activities you wish to promote in your area or region, always endeavouring to involve the local communities in the process and ensuring that on-going monitoring of both positive and negative impacts is carried out.

? Develop an intensive and extensive campaign, publicising the national importance and attractiveness of natural protected areas, raising the public awareness towards biodiversity. Of course, this has to go hand in hand with the development of appropriate physical facilities and operation of adequate ecotourism programmes.

? In the case of protected areas, ensure that the management plan includes a section on ecotourism management that clearly specifies what may be done and what should not be done.

? Also in the case of protected areas, promote the creation of "Friends of the Park" schemes, where the protected area acts as an authoritative and credible institution to help foster relationships and exchanges.

? Be involved in on going training programmes, which include park staff, local communities, tour operators (especially guides), local authorities and even the tourists themselves. These training programmes must include the subjects of ecology, biodiversity conservation, wildlife and plant identification, interaction of man and the environment, local culture, first aid, etc.

? Emphasise the existence of a protected area (when visited by ecotourists) through appropriate signs, especially at the entrance of each area.

? It is important to encourage the creation of private reserves which, apart from serving as attractive ecotourism destinations, will be supporting biodiversity conservation.

6. Controlling Quality

6.1   Legislation, Regulation, Standards, Guidelines, and Codes

Adequate environmental legislation must be impelled and bettered. An effective legislative framework that establishes standards for land use in tourism development, physical facilities for tourism, and management and investment in tourism is required everywhere. It is important to provide a flexible legal framework for tourism destinations to develop their own set of rules and regulations applicable within their boundaries to suit the specific requirements of their local socio-economic and environmental situation, while maintaining consistency with overall international, national, and regional standards and guidelines (UNEP, 2001).

The International Organization for Standardisation (ISO), based in Geneva, has recently set up a new international voluntary standard for environmental management systems (EMS) known as ISO 14001 (a part of the ISO 14000 core series), which is currently the subject of heated debate. Proponents of ISO 14001 argue that the new standard will be an effective tool for improving industrial environmental performance and help to ease burdens on environmental regulators. At the same time, many in the environmental community worry that compliance with ISO 14000 does not guarantee environmental improvements. The ISO 9000 series embodies comprehensive quality management and quality assurance concepts and guidance, together with several models for external quality assurance requirements. ISO 9000 standards have proven to be a template for the creation of a sound quality system. The official ISO web site is: http://www.iso.ch/

Penalties and fines for environmental damage caused by different types of economic activity, including tourism are at this time ludicrous in most countries around the world. Additionally, economic interests many times overrule technical criteria and recommendations on the building or not building of tourist infrastructure at set places. Depending more on particular interests, environmental impact studies are frequently not heeded to. Control and follow up of these activities, as well as coordination to implement and see them through are not efficient. Some reasons for this in many countries are a lack of mechanisms for coordinating inter-institutional and inter-sectoral activity, as well as a lack of awareness as to the importance of coordinating this type of activity, lack of personnel and training on the part of the official environmental authorities and the Department of Justice, as well as by municipalities. Legal processes for indemnifying negative impact on the environment are still lengthy and penalties do not compensate damage to society. Instruments for regional planning are insufficient or faultily applied, which becomes one of the most important flaws in the management and use of lands.

National standards and regulations (which are of a compulsory nature) should be inserted into an international guideline framework (of a voluntary nature). Codes of ethics should be adopted also voluntarily by the different

stakeholders, establishing the most appropriate rules of conduct for their constituents. Education is also essential, and a good partner with voluntary initiatives in achieving sustainability. Summarising, education and voluntary guidelines and codes are required, followed by laws and their strict enforcement by authorities.

For achieving a good interaction between biodiversity conservation planning and tourism, regulations and guidelines should consider the following general themes: ecological, social, economic and cultural aspects. In order to be more effective, standards should provide fiscal incentives and promote development of small businesses.

Ensure consistent monitoring and review of tourism activities to detect problems at an early stage and to enable action to prevent the possibility of more serious damage.

Specific Examples of Best Practice from Selected Countries

1) International: In January 2001, the **UNEP Tourism Programme produced a final version of *Principles for Implementation of Sustainable Tourism* for UNEP's 21st Governing Council Meeting. UNEP surveyed a considerable number of the main guidelines that are already available worldwide, and consolidated and summarised these into a single set of principles, in a general and concise way.** These principles, which hopefully will be widely applied, are grouped into four main themes:
- Integration of Tourism into Overall Policy for Sustainable Development
- Development of Sustainable Tourism
- Management of Tourism
- Conditions for Success

To read the document, see: www.uneptie.org/tourism/home.html

2) International: **The World Tourism Organisation has launched the Global Code of Ethics for Tourism**, which addresses environmental, social and economical principles, practically defining a baseline for what sustainable tourism should be. Articles 3, 5, and 9 address the environmental and social aspects of sustainability. See WTO's web site: www.world-tourism.org

3) Costa Rica: **In Costa Rica the Biodiversity Law, first of its kind in Latin America and arguably in the world, was approved in 1998.** The "pro-national park stamp" (a type of tourism tax), created by the National Park Service Law in 1977, must be paid by every foreign tourist and national citizen when they leave the country. The value and certain characteristics of this stamp were modified by the Biodiversity Law and 10% of the collected funds will now go to the National Commission for Biodiversity Management, created by this Law.

4) Belize: This country has established a departure tax for every foreign visitor leaving the country (presently about US$2.50) for environmental conservation. The key parks system resources are currently managed by the Belize Audubon Society, which receives no funding from Government, but rather raises its funds through entrance fees, Protected Areas and Conservation Trust (PACT) taxes, and international donors.

5) Canada: Experience in Canada has shown that legislation is an important component of an overall approach to conserve biodiversity and ensure the sustainable use of biological resources, including tourism. Federal, provincial and territorial governments have enacted numerous acts and regulations that affect biodiversity, including:
- the Canada Wildlife Act and the provincial and territorial wildlife acts;
- the provincial endangered species acts;
- the National Parks Act and provincial parks, wilderness and ecological reserves acts;
- federal and provincial environmental protection acts;
- the Migratory Birds Convention Act;
- the Fisheries Act;
- the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act;
- the Oceans Act;

- the provincial forest acts; and
- the provincial land use planning acts.

Responsibility for the conservation and sustainable use of biodiversity is distributed across the breadth of Canadian society, rather than being in the hands of one body, such as the Canadian Biodiversity Office. Due to the complexity and pervasive nature of biodiversity and its importance to Canadians, much of the responsibility for ensuring its conservation and the sustainable use of biological resources, including tourism, remains in the hands of the various orders of government

6) Canada: **Recent park agencies' focus on establishing marine protected areas has involved identifying distinctive marine ecosystems, developing planning and legislative tools, and intergovernmental cooperation mechanisms necessary for creating systems of marine protected areas**. Canada is at a very early stage in its efforts to establish marine protected areas. In 1996, the federal government passed *The Oceans Act*, providing a new mechanism for establishing protected areas in the marine environment. In 1998, the governments of Canada and Québec jointly created the Saguenay-St. Lawrence Marine Park, the first marine park resulting from a federal-provincial agreement.

7) Canada: A number of Product Clubs (NGOs) operate in protected areas, and are oriented to rural tourism, ecotourism or adventure tourism. Some, such as the *Conservation Lands of Ontario* initiative, and others, are founded upon principles of sustainable tourism, and actually have stipulations that part of their membership fees should go back to the environment and local projects, and have developed their own more detailed codes and guidelines under which to operate tourism.

8) South Africa: The South African Biodiversity Policy recognises the country's constitutional and legislative responsibilities for biodiversity conservation. It also recognises the importance of creating conditions conducive to integrated planning and development, for the conservation and sustainable use of national biological resources. Tenable incentives, guidelines, certification systems, enforcement and regulations are all tools used to facilitate the implementation of responsible tourism The co-ordinated development of a law enforcement strategy, effective deterrents, and the strengthening of capacity is supported by the Department of Environmental Affairs and Tourism (DEA&T) in balance with incentives to conformity with the law. Mechanisms such as legislation, planning controls, guidelines, and protected area designations are applied to conserve the wide range of biological resources

Best Practice Guidelines

? Acknowledge that in many cases a number of good laws already exist (regarding environmental impacts, water conservation, waste management, forest conservation, etc.) but that these laws need to be enforced, and this may be dependent on budgets for legal administrators. Consider legislation that has already been developed or is being developed.
? Strengthen institutional frameworks for enforcement of legislation to improve their effectiveness where necessary.
? Strengthen regulations for coastal zone management and the creation of protected areas, both marine and coastal and land-based, and their strict enforcement.
? Provide resolutions that warrants each client a amount of vital space, incorporate a visual impact assessment, right to solar radiation, etc.
? Ensure that the language of regulations, guidelines and codes of ethics are understandable to local communities, visitors, and local authorities.
? Standardise legislation and simplify regulations and regulatory structures to improve clarity and remove inconsistencies.
? Establish institutional and staff capacity for monitoring the overall progress of touristic areas towards sustainable development.
? Monitor the implementation of environmental protection and biodiversity conservation set out in EIAs , as well as the effectiveness of such measures, taking into account the effectiveness of any on-going management requirements for the successful operation and maintenance of those measures for protection of areas where tourism takes place.

? In countries where there are strict traditional codes of conduct, have tourists sign a document stating that they will follow appropriate cultural and environmental practice. For example, in Muslim countries, tourists should agree to sign a document by which they are committed to remain covered with appropriate dress in public.

6.2 Certification

Every country needs a national certification system in the field of tourism; it needs to be applied by an inter-sectoral body (that should include NGOs, communities, tour operators, etc.). National governments need not be the certifiers. The certifier is preferably the result of a cooperative effort (e.g. a commission) that involves scientists, communities, industry, etc. The certification programme must have official recognition by all stakeholders. Certification schemes need to be independent, non-profit, transparent, and credible. If certification is to be used in the field of sustainable tourism it must bring benefits to biodiversity conservation.

A standard is a level that every one must meet (e.g. safety standards for being a river raft guide); certification should place more requirements, raising the bar in terms of the criteria that need to be met. Certification is something destinations must decide for themselves and should be carried out on specific measured environmental performance.

Local or regional certification schemes are normally preferable, but based on international guidelines, and they must include biodiversity as one of the main components.

Certification should provide economic benefits to all stakeholders (including tour operators). Most tourism certification in the past has not duly considered factors like environmental quality, biodiversity conservation, and respect for local cultural traditions. In the future, certification should appropriately link tourism with biodiversity conservation, and should be performance-based. Biodiversity (including conservation, maintenance, and enhancement), socio-economic (comprising gender issues, level of participation of local people, and benefit sharing), and cultural criteria must be considered in every certification scheme.

It should be recognised that many certification programmes are currently unreliable (resulting, e.g. in lack of training in hotels). Try to attract tourists who are already complying with certification schemes.

Specific Examples of Best Practice from Selected Countries

1) Australia: **The National Ecotourism Accreditation Program (NEAP) was launched by the Ecotourism Association of Australia in 1996, and is jointly run with the Australian Tour Operators Network. The NEAP arose out of the fundamental problem of how to distinguish between genuine ecotourism operators and other operators who operate in natural areas**. At the end of 1998, there were about 130 attraction, accommodation and tour products accredited, according to eight basic sustainability principles. Depending on how many points operators achieve, they can either be awarded accreditation or advanced ecotourism accreditation. The Accreditation Program has been critical in helping ecotourism operators improve the profile of their products, which in turn has led to greater customer recognition and an emerging market edge. See web site: www.ecotourism.org.au/

2) Costa Rica: **The National Accreditation Commission for the Certification for Sustainable Tourism issues a Certificate of Touristic Sustainabilty (CTS) to those operators that comply with a series of environmental and cultural guidelines.** The Blue Flag is also a certification scheme which is awarded to Costa Rican beaches that comply with requirements of cleanliness, environmental education, and community organisation, thus warranting the sanitary and aesthetic qualities of the beaches.

3) International: The Mohonk Agreement is an agreed framework and principles for the certification of ecotourism and sustainable tourism, which was unanimously adopted at the conclusion of an international workshop held at Mohonk Mountain House, New Paltz, New York in November 2000. This document contains a set of general principles and elements that, according to the workshop participants, should be part

of any sound ecotourism and sustainable tourism certification programmes. Participants came from 20 countries and delegates represented most of the leading global, regional national, and sub-national sustainable tourism and ecotourism certification programs, conservation and environmental organisations, and others with expertise in tourism and ecotourism certification and environmental management. Workshop participants recognised that tourism certification programmes need to be tailored to fit particular geographical reasons and sectors of the tourism industry, but agreed on a basic set of principles that, in their opinion, must frame any ecotourism and sustainable certification programme It was agreed that the development of a certification scheme should be a participatory, multi-stakeholder and multi-sectoral process (including representatives from local communities; tourism businesses, governments, non-governmental organisations, community-based organisations, and others).

Best Practice Guidelines

- Be sure that the objectives of your certification scheme be clearly stated.
- Ensure that your certification scheme will provide tangible benefits to tourism providers and a means for tourists to chose wisely, as well as tangible benefits to local communities and to biodiversity conservation.
- Set minimum standards while encouraging and rewarding best practice. Criteria used should meet and preferably exceed regulatory compliance.
? Clearly define what is being certified: tour operators, destinations, attractions, programmes, hotels, guides, etc. Each has an implication for biodiversity conservation.
- Ensure that your certification scheme includes a process to withdraw certification in the event of non-compliance.
- The scheme should establish control of both existing and new seals/logos in terms of appropriate use, an expiration date and, in the event of loss of certification, that it is withdrawn.
- Make sure the certification scheme is subject to a periodic review and includes provision for technical assistance to stakeholders.
- The scheme should be designed such that there is motivation for continual improvement - both of the scheme and of the products/companies/bodies to be certified.
- Ensure that criteria used embody global best practice in environmental, social and economic management.
- Ensure integrity: the certification program should be transparent and involve an appeals process.
- Be sure that the certification body is independent of the parties being certified and of technical assistance and assessment bodies (i.e., administrative structures for technical assistance, assessment and auditing should avoid conflicts of interest). The scheme should require audits by suitably trained auditors.
? Make the certification programme recognisable and understandable by tourists . Use clear labelling of hotels and other tourism products and services (based on environmental performance).

7. Institution Building

7.1 Education and Training

Education and training are vital for enhancing the links between biodiversity conservation planning and tourism. Appropriate environmental education and awareness-building among local communities, the private sector, tourists and government will help to promote responsible actions to reduce adverse impacts and increase support for conservation policies and programmes. Frequently, negative social and ecological impacts caused by tourists result from the fact that guests have little or no understanding of the local culture and ecology.

It is very important to increase public awareness of environmental issues through tools such as TV and radio programmes, magazines and posters. Consumer education campaigns are needed to support this process. Governments can further promote environmental and social goals through general awareness-building

campaigns focused on a wide range of groups, including hotel owners, tour operators, government offices, tourists, school children, and local communities.

Education for tourists should include specific examples of a region's biodiversity, its particular ecosystems and any endemic species present. Education campaigns for the tourism sector should include an ethical mandate, in the sense that tourism needs to benefit both the natural and social environment, improving (and investing in) social and public infrastructure, as well as endeavouring to eliminate local poverty.

Hotels, restaurants and tour operators are all encouraged to carry out ongoing training programmes among their staff (at all levels), striving to teach them sound environmental practices.

The interaction of tourism and biodiversity conservation should be imparted at schools where tourism is taught (at different levels, i.e. technical, university, graduate).

Specific Examples of Best Practice from Selected Countries

1) Costa Rica: **INBioparque is a recreational park providing an educational space to inform people on the national parks and biodiversity of Costa Rica.** Recently set up by the National Institute of Biodiversity (INBio), it received from the National Tourism Chamber the "Tourism Entrepreneurial Merit Award", an award that recognises and rewards those ventures which significantly contribute towards strengthening in a sustainable way the national tourist industry. The Park contributes to the Institute's effort in "bioliteracy", which is a life -long process in educating and changing peoples attitudes and behaviour towards biodiversity. INBioparque offers interpreted nature trails, a natural lagoon to observe native wetland plants and animals, and interactive exhibition halls with multimedia and audiovisuals. For more information see: www.inbio.ac.cr/inbioparque/

2) Tobago: At the Footprints Resort, guests are actively invited to participate in environmental educational activities, such as planting trees to support national reforestation efforts.

3) Costa Rica: Guests of the Lapa Rios ecolodge are provided with information about government environmental policies and encouraged to write letters to politicians regarding conservation matters.
4) Bahamas: In the Out Islands the government is assisting the travel industry in informing travellers about environmental protection efforts in order to increase tourist support for and participation in conservation initiatives.

5) Thailand: The government is carrying out a "Magic Eyes Anti-littering Campaign", which has greatly improved litter control in that country (Sweeting et al., 1999).

6) Denmark: At the Neptune Hotel in Copenhagen, training is given to all staff to incorporate environmental housekeeping practices in their daily routines.

7) Hong Kong: At the Hotel Nikko, all staff are trained to apply good housekeeping measures during their daily tasks: turning off equipment when not in use, closing curtains in unoccupied bedrooms to reduce heat transfer, using washing machines according to manufacturers specifications, and reporting leaks and other defects (IHRA/UNEP, 1996).

Best Practice Guidelines

?   Implement various levels of guest education, appropriate to the type of guest and requiring varying degrees of staff time and expense.
?   Provide a means for guests to support local conservation and community development efforts.
?   Encourage the teaching of biodiversity conservation/tourism interaction in tourism schools.
?   Set up specific environmental educational programmes for the entire staff of a hotel or a tour operating company, identifying good practice examples and duplicating successful models.

? Use the Internet and other communication systems to disseminate biodiversity conservation principles to the whole tourism industry, as well as sustainable tourism standards to biodiversity conservation planners.

7.2 Developing Innovative Partnerships

Innovative partnerships should be set up between the different sectors, so as to achieve a better interaction between biodiversity conservation planning and tourism activities. Linking tourism revenue with conservation management should be promoted, as well as marrying different priorities of conservation authorities and private operators. Partnerships should always be mutually beneficial.

It is important to apply methods such as incentives, compensation and certification to promote environmental best practices in tourism, including the use of mechanisms such as taxes or voluntary strategies for sponsoring reserves. Such practices should contribute to alleviate impacts and also to carry out research in impacts. Taxes and donations need to be collected with transparency. Tourists should be given the opportunity to support through donations and not necessarily through higher costs that can disadvantage tour operators. Protected area managers should try to involve local hotel managers and tour operators in specific conservation activities.

Specific Examples of Best Practice from Selected Countries

1) Belize: **A classic example of tourism revenue being used for conservation is the Protected Areas Conservation Trust (PACT) , which began operation in 1996. It was designed to collect money directly from tourists via the airport departure tax (US$4.35).** The money is held by the trust and distributed directly to protected areas for projects that focus on protected area enhancement and ability to conserve including education programmes and infrastructure development. The PACT money is not intended for government administrative purposes.

2) Costa Rica: **The Paid Environmental Services Programme (PES) is an instrument of innovative policies that consists of compensation (payment) to owners of forest lands for environmental services that these areas provide for Costa Rican society specifically and the global community in general**. This is significant both for the environmental policy and the economy because for the first time it is acknowledged through national law that forests provide goods and services apart from wood and lands for agriculture which must be paid for, and the valuation of which must be carried out adequately, although for many of these there is as of yet no traditional market. The different ecosystems offer diverse services that provide local, national and global benefits. In Costa Rica, recognised for the PES are: mitigation of greenhouse effect gases, protection of ground waters for urban, rural or hydroelectric use, protection of forests, protection of biodiversity with the aim of sustainable use and the maintaining of natural landscapes for touristic and scientific purposes. PES is applied to private farms under the condition that they maintain sustainable, environmentally-friendly activities, such as ecotourism. The relevance of this system is the opportunity it offers owners of obtaining direct benefits for conserving or adequately managing forests on their property. Thus, conservation and sustainable use on private lands is being promoted as a complement to efforts that have been made in protected wilderness areas. Thanks to the PES in 1999, for example, native forests under private protection covered 3.8% of national territory.

3) Botswana: Concession fees from park visitation go to local communities and are also applied to natural resource management.

4) UK-Nepal: In an innovative partnership, Dartmoor Park Authority (UK) are working with counterparts in Nepal to aid in enhancing tourism management. They are producing useful and informative leaflets for tourists to several Nepalese attractions – which then generate income for the local people who sell them (DFID, 1999). More information at: www.dfid.gov.uk/

5) Netherlands**: "Nature for Tourism, Tourism for Nature" is a project launched by the Netherlands Committee for IUCN (The World Conservation Union) which is focused on the positive effects tourism**

may have on the conservation of nature. The project aims to create close co-operation between Dutch tour operators and local nature conservation organisations and projects in the countries in which they operate, making use of the IUCN network. This gives tour operators the opportunity to financially support nature conservation (through a percentage of turnover) with local community involvement and contribute to the preservation of nature, which is in effect the basis of their existence. The project aims for small-scale projects directed at biodiversity conservation through training, education, capacity building of local NGOs and sustainable ecotourism. More information on their web site: www.nciucn.nl/

6) Costa Rica: Volunteer work has been emphatically fostered. One example is the COVIRENAS (Committees for the Surveillance of Natural Resources), which, since 1992, carry out different support tasks for conservation such as control and surveillance work (preventing fires, poaching, illegal hunting, fishing and timbering), reforestation, care of springs, cleanliness of rivers and beaches, education and awareness for tourists and students, specially in areas adjacent to protected areas and their surroundings. They also actively participate in training and consultation workshops. Other examples of good volunteer work are the "resource watchers"; the "brigadiers", who collaborate especially in fire control; and "volunteers", who support work in the protected wildlife areas (PWAs), the latter coordinated by the National Volunteer's Association (ASVO).

Best Practice Guidelines

? Set up practices such as incentives, compensations, concessions and donations so that the tourism sector can contribute to biodiversity conservation.
? Compensate by means of paid environmental services those land owners that keep native forest and carry out other sustainable activities, such as ecotourism.
? Encourage volunteer work among tourists and local communities that will contribute to biodiversity conservation.

7.3 Capacity Building

In order to foster a symbiotic relationship between tourism and biodiversity conservation, it is important to develop capacity building programmes that will enhance and strengthen human resources and institutional capacities in government at both the national and local levels, and also amongst local communities. This will help to integrate environmental and social considerations at all levels.

It is also important to transfer know-how and provide training in areas linking biodiversity with tourism, such as planning, legal framework, setting of standards and regulations, management control, and application of environmental impact assessment (EIA) and sustainable tourism management techniques and procedures (UNEP, 2001)).

Specific Examples of Best Practice from Selected Countries

1) UK: The UK has acknowledged strengths in helping to increase institutional capacity and the Department for International Development (DFID does considerable work in this particular area, such as producing how-to documents such as *Changing the Nature of Tourism* (www.dfid.gov.uk). Another institution with relevant expertise and contacts is The Prince of Wales Business Leaders Forum. (www.oneworld.org/pwblf).

2) International: The World Bank and other multilateral agencies (Organisation of American States, Commission of the European Communities, South Pacific Commission, etc.) have produced many practical manuals for developing capacity building in various sectors, including tourism and environmental conservation. For references see Annotated Bibliography.

Best Practice Guidelines

?   Improve and strengthen human resources and institutional capacities to facilitate effective implementation of sustainable tourism practices that will contribute to biodiversity conservation.

?   Promote contributions and donations to capacity building from individuals, international organisations, the private sector and the tourism industry.

?   Make possible the transfer and assimilation of new environmentally-sound, socially acceptable and appropriate technology and know-how, seeking a good mix and interaction with traditional sustainable practices.

?   Encourage support from the tourism sector in those countries which have not yet arrived at successful implementation of sustainability mechanisms in training for appropriate linking of biodiversity conservation planning and tourism.

7.4 Developing Information and Communications Mechanisms

Better information exchange must exist at all levels: between the different sectors, within these sectors, and among countries. Today's consumer must be encouraged to be more discriminating. For how else will people get tourist operators competing to meet values other than simply price?

The 21st century offers information and communications mechanisms which were not previously available only a few decades ago. The spread and progress of mass media such as TV, radio, newspapers, specialised magazines, and especially the Internet provide extraordinary tools for disseminating information linking tourism with biodiversity. Other new technologies like the use of CD-ROM open enormous possibilities.

Traditional tourism information should be revamped, so as to include clear information on biodiversity, natural ecosystems, endemic species, conservation issues, cultural traditions and attractions. Information must be scientifically precise, but presented in an uncomplicated and attractive way.

From brochures to information offered by tour guides, points of contact offer key chances to create more considerate and responsive clients. However, in spite of all the technological breakthrough in information and communications systems, it is still believed that over half of all tourist choices are based on word-of-mouth, so it is important not to raise expectations on site that cannot be met.

The relatively recent proliferation of books on all sorts of nature themes, such as field guides for identifying birds, mammals, butterflies, plants, etc.; descriptions of national parks, animal behaviour, natural ecosystems, endangered species; monographs on the natural history of very many different countries; treatises on biodiversity, etc. have all contributed to raising awareness on biodiversity matters and are also fostering a remarkable interest in travelling to natural destinations around the world. In parallel with these books on natural history subjects, there has been a notable propagation of general travel guides to practically every corner of the planet (such as Lonely Planet Guides, Rough Guides, Michelin Guides, etc.)

Appropriate information for visitors is critical in ensuring that tourists' behaviour is sensitive not only to fragile natural ecosystems but also to local cultures. Problems with inappropriate dress are well known (i.e. especially Islamic countries).

Many countries (e.g. Mexico) already have a long standing tourism reputation as conventional tourism destinations, but the international public usually retains the standard images, so that these have to change to reflect new images, including nature. In the case of Mexico, traditional images of *mariachi* musicians and beautiful beaches should be complemented by images reflecting the enormous biodiversity richness of that country.

For an extensive listing of web sites of institutions providing important information services on biodiversity/tourism matters, refer in this document to Appendix III: Annotated Bibliography.

Specific Examples of Best Practice from Selected Countries

1) Costa Rica: The Costa Rican National Conservation Areas System (SINAC) provides ample and available information on the Internet (www.minae.go.cr). SINAC also provides authors of international tourism guides on the country, reliable and up to date information about the protected wildlife areas (PWAs). Also, with support from the private sector, NGOs such as INBio, more and better information is being updated and generated every year.

2) International: The Internet web site http://www.planeta.com provides practical, continuously updated and in-depth information on ecotourism options in Latin America and other countries. It also organises frequent discussion fora on different aspects of sustainable tourism.

3) International: There are several offices around the world providing online and e-mail information on the GEF/UNEP/UNDP BPSP (Biodiversity Planning Support Programme). The Latin American and Caribbean regional component of the BPSP offers a particularly efficient system of information on all matters pertaining to biodiversity conservation planning (including links with tourism). Contact: Association for Biodiversity Information: Ms. Julie Bourns <Julie_Bourns@ABI.org>

4) Costa Rica: The INBio-SINAC Joint Programme has as one of its main components the production of informative materials and diverse publications such as field guides and other books related to Costa Rica's biodiversity, both in Spanish and in English. Themes cover an extensive range of groups of interest such as plants, vertebrates and invertebrates. *La Guía de Aves de Costa Rica* (Field Guide to the Birds of Costa Rica), published in 1995 in Spanish, is a book that is considered "a bible" on the country's birds, and is widely used by nature guides and tourists, both national and foreign. Other books published are: Field Guides to the Mammals, Beetles, Scorpions, Butterflies, Flies and Related Insects, Ornamental Plants, Bromeliads, Orchids, and Fungi of Costa Rica, as well as specialised guides for a number of protected areas.

5) Costa Rica: Dissemination of information to generate greater awareness in the population on the importance of biodiversity is the task of many groups in the country, and it is on the increase. Three important groups, aside from NGOs and State, are television, radio and national newspapers. Television channels have for years aired weekly programmes produced by private companies that guide the viewer through the natural beauty the country has to offer. On the radio, it could be said that nature is present in the media everyday. These broadcasting activities are, without doubt, generating a great interest, which has very probably been at least partly responsible for the increase of national visitors to protected wilderness areas.

6) Chile: The Chilean Government hosts a standard tourism web site which includes information on agrotourism and ecotourism attractions and services. The National Parks Service also has its own page. For more information see: http://www.chilesat.net/sernatur/

7) Chile: Rangers of the Chilean National System of Protected Areas are recently providing environmental information aboard selected national flights, interpreting features (e.g. geomorphology, vegetation distribution, endangered ecosystems, and ecotourism attractions) .seen from the plane as a form of environmental education and promotion to visit the national parks.

Best Practice Guidelines

?   Exchange information between governments and all stakeholders on best practice for linking biodiversity conservation and tourism, including information on planning, standards, legislation and enforcement.
?   Make sure that your information for tourists includes aspects on biodiversity, the natural and cultural environment, appropriate behaviour and conservation issues.
?   Make good use of TV, radio, newspapers, guidebooks and magazines to spread the word on biodiversity/tourism interaction to all sectors of society.
?   Ensure that the specific tourist destination defines the image that the country wishes to promote as a whole.
?   Keep your web site constantly updated, otherwise it will soon lose credibility.
?   Use international and regional organisations (including UNEP) for assistance in information exchange.
?   Make sure that guidebook and Internet information is constantly kept updated, to avoid confusions (e.g. having tourists refuse to pay current prices).

7.5 Business Aspects, Promotion and Marketing of Sustainable Tourism

Overview

Tourism is a big industry based on many small businesses. If we want tourism to contribute to biodiversity conservation and sustainable development, tourism must then be a profitable enterprise, providing substantial economic benefits to the people involved in the different facets of this complex activity. Even in the case of ecotourism or rural community tourism, the process must be characterised by being a good business.

While significant major players offer large numbers of popular packages, even in mass destinations the small businesses are the bedrock of visitors' experiences. The importance of small businesses to nature tourism in rural areas of developing countries cannot be overstated.

A code of ethics based on **"Profit with principles"** should be present in every tourism business. Especially in the case of ecotourism and rural community tourism, profits should be analysed on a long term basis. Aiming for quick profit may bring catastrophic environmental and cultural results.

More appropriate funding mechanisms are required in the tourism industry. Unfortunately, there are no specialised banks for tourist investment, nor are the banks usually aware of the sector's specific needs. However, there are a number of financial mechanisms which may be applied for funding tourism projects, such as venture capital schemes and through the private equity market. In the case of new technologies, all interested credit cards need to work to assist the tourism sector (including local) communities to enter into e-business as regards ecotourism and other community-based enterprises.

Governments are often focusing on larger products to the disadvantage of all small touris m businesses. Community products may be further disadvantaged by their remote location and isolation from other products. Micro-credit programmes should be set up for developing tourism in rural areas. Financial training is widely required for successfully launching micro-credit initiatives.

As regards funding for national parks and other protected areas, it is vital to have tourism participating in the provision of proceeds towards the conservation of these areas and the biodiversity therein contained. The appropriate pricing of entrance fees to protected areas is a key factor for channelling tourism revenues to the management and protection of these areas. Concessions, which are another important means for obtaining revenues for protected areas, should be granted in a careful way to organisations with a good environmental track record and according to strict guidelines, which should be incorporated in contractual documents.

Even with the best of products, if the right people do not know about it (what it is, how it can be obtained) it will not sell. The same holds for true for tourism, including ecotourism. In the case of tourism to protected areas, while it is certainly recognised that some protected area managers want few if any tourists, those parks interested in promoting tourism or dependent on tourism receipts for their economic justification are in need of marketing skills. Marketing is, however, still viewed with scepticism by many conservationists and protected area managers.

The principles of marketing environmentally-friendly tourism (including tourism to protected areas) are largely the same as for marketing any other product.

Basically, marketing includes the following phases:
a) inventory of existing attractions and activities,
b) targeting of appropriate market segments of specific groups of tourists,
c) evaluation of the appeal of the various attractions and activities for each targeted group, and
d) promotion

In order to promote tourism to environmentally significant destinations, both domestic and foreign tourists should be targeted. Domestic tourism is sometimes as much as ten times bigger than foreign tourism and by promoting nationals to visit their protected areas we will be fostering environmental awareness and pride related to the natural heritage of a country. In many countries, frequently nature tour operators are left out of the directory pages of the standard tourism industry.

Sustainable tourism marketing may involve the need for specific strategies like demarketing and niche marketing (e.g. what Seychelles is doing in order to control tourism numbers and ensure environmental integrity.

There needs to be cross-fertilisation between nature-based tourism and the broader tourism industry. We need to use this as an option to promote conservation practice to the broader industry. Normally there is no money for operators/communities to do this, so it needs to come from governments and/or big business firms.

Tourism shouldn't be only market driven. In many African countries, for example, local people feel bad about tourism use proscribed to the community. Tourism is widely seen in these countries as an activity restricted to rich foreigners.

Specific Examples of Best Practice from Selected Countries

1) International**: The International Finance Corporation (IFC), which is part of the World Bank Group, has a unique mandate: to encourage private investment, foreign as well as domestic, in developing countries.** Founded in 1956 by 31 countries, IFC today has more than 160 member countries. It is the largest multilateral source of financing for private sector projects in developing countries, with annual investment approvals in excess of US$2 billion. IFC also helps companies to raise capital in the international financial markets and provides a full array of advisory services to private businesses and to governments. IFC recognises tourism's contribution to economic development primarily through the support of hotel investments, although private sector tourism infrastructure can also be financed. IFC has provided loan and equity financing for hotels and other tourism businesses for over three decades. IFC's involvement in the tourism sector focuses on projects that promote sustainable development, enhance conservation of natural resources and the environment, and promote high standards of environmental safety. Web site: http://www.ifc.org/

2)Bangladesh: In this country the Grameen Bank reversed conventional banking practice by removing the need for collateral. So far it has loaned US$2.5 billion to over 2 million members. Other micro-credit schemes have also demonstrated powerful results in developing countries. The message - that dedicated and energetic entrepreneurs, appropriate support, and micro-credit make sense – is now a major force for change. See: www.grameen.com/

3) Barbados: Within the overall framework of *Gems of the Caribbean,* a promotional campaign called *Gems of the Barbados* was carried out through a joint effort between the government and the private sector of that country. A unified brand for the different tourism businesses, with strict quality control and surveillance was set up.

4) North America: The North American Commission on Environmental Cooperation (NACEC), working within the framework of the North American Free Trade Agreement (NAFTA) has a database on funding sources for small, environmentally-friendly businesses, including ecotourism ventures. Web site: www.cec.org/databasas/tourism/

5)Canada: The Canadian Tourism Commission (CTC) also provides a list of financial aid/loan programmes in its web site: www.ctc-ctx.com/

7) Australia: The Ecotourism Association of Australia is developing, in coordination with QANTAS airlines, short airline videos that promote conservation through tourism in Australia for the International Year of Ecotourism (IYE 2002).

Best Practice Guidelines

?   Bestow as much importance to the business and financial matters of your tourism operation (especially if it is an ecotourism venture or a community-based operation) as to the biodiversity conservation concerns. community development.

?   Always apply a "Profit with Principles" philosophy to your tourism operation, considering not only short term planning but long term.

?   Promote conservation-oriented tourism, including ecotourism, through mass media and integrate into conventional mass tourism promotion and marketing. Target both national and international tourists.

?   Develop opportunities through tourism shows to demonstrate and promote community tourism experiences and for communities to share experiences.

?   Develop integrated branding strategies (through local or regional organisations) so as to achieve more efficient marketing and better economies of scale (e.g. in purchasing, advertising, etc.).

?   Provide wider information on alternative financial schemes (if available) to local communities and small businesses.

?   Be sure your nature tourism products are integrated into the general directory pages of the standard tourism industry and strive for obtaining government promotion support.

?   If you are a protected area manager (and you want to attract visitors), be sure that you have a good web site on the Internet (periodically updated) that provides the right information to the public (both at the national and international levels).

?   Use standard trade shows for promoting ecotourism and visitation to protected areas.

?   Ensure that the fixing of entrance fees to protected areas is properly negotiated with the private tour operators.

?   Be sure that concessions for tourism services within protected areas be granted to organisations with a good track record, according to strict environmental norms which should be clearly included in the contractual documents.

8. Physical Planning

8.1 Infrastructure Design and Site Planning
Overview

Site planning and design is a process which involves in an integrated way the issues of land use, human circulation, structures, facilities and utilities within the natural and human environment. In order to ensure harmony between tourism developments and environmental protection, it is indispensable to apply sensitive design of infrastructure, master site planning, ecologically and socially conscious site design, and landscaping.

Preserving the special characteristics of a tourism destination demands an in-depth understanding of the natural systems on the site, as well as an immersion into the time-tested cultural responses to that environment's opportunities and constraints. If we want to change the way we build traditional tourism facilities, we need a new way of thinking about site planning and design, which involves a holistic approach. Sustainable site planning and design can lead to a better integration of physical facilities for tourism and their site and surroundings and can indeed help to lessen the environmental impact of these facilities.

Site planning and design for any tourism facility must clearly indicate the process of ordering human actions and works in a specific tract of land. In addition to constituting a graphic representation (to scale) that shows location, layout, general size and shape, and orientation of the different elements of the project, site planning and design should indicate the sequence of activities that make up the project, clearly establishing a space-time interaction. Also, it should ensure that all on-site human activities should have a minimum negative impact on the natural and human environment.

The site planning and design for any tourism facility must be, first of all, an instrument that safeguards the sustainability and conservation of the surrounding natural and cultural heritage. Not only should it conserve the natural ecosystems but it must also contribute to repairing and restoring the environmental damages that may already be present in the site. The development of the site should strive to leave the site better off after development than before.

Zoning is a very important tool in the site planning and design process. It is the process of applying different management objectives and regulations to different parts or zones of a specific area (see section 3.2.2).

The success of any tourism facility (including ecolodges) often lies on the initial process of site evaluation and selection. Careful evaluation, in some instances, may reveal that the site is not appropriate for developing the facility. All considerations involved in selecting the most appropriate site will be essential in any forthcoming decisions dealing with design and construction.

Considering the increasing visitation to wilderness areas over the past decade and the resultant effects on the carrying capacities of the ecosystems, it would be prudent to select sites for developing ecotourism facilities that are situated just outside the nature preserves, although this is not always possible since some of the preserves are very large. As such, a well-conducted site evaluation can assist developers in finding alternatives to developing in protected areas. Selection of an appropriate site is critical for ensuring the sustainability and viability of an ecolodge. The selected site should support the lodge within natural and biophysical resource limits while offering ecotourists the opportunity to experience and enjoy the environment.

Frequently, in those sites which are more appropriate for ecolodge development there are limited or no infrastructural elements or public services, because of typical isolation and remoteness.

It is important to analyse how much infrastructure should be provided by the local authorities, and how much by the private sector. Since the extra service demand is often only used part of the year (seasonal), and takes precedence over use by local communities, tourism providers must invest in their own infrastructure needs. Both communities and tourism sector should benefit from infrastructure development.

Specific Examples of Best Practice from Selected Countries

1) Bolivia**: Chalalan Ecolodge is located in a primary rainforest area and was developed with as little ecosystem disturbance as possible during the construction process**. The lodge now boasts populations of monkeys, macaws and other flagship species that are a big attraction to clients.

2) Thailand: The Banyan Tree Hotel in Phuket was built on a site formerly used for tin mining. In order to restore the land, the resort did extensive landscaping and planted hardy native plants such as cassuarina trees and palms. Construction materials were chosen to minimise the use of scarce local forestry resources. Instead, all villas were built of bricks, with clay roof tiles. As a result of these efforts, wildlife has been returning to the area (Sweeting et al, 1999).

3) Nepal: Narayani Safari Hotel and Lodge were built on the periphery of the Royal Chitwan National Park (this was preferred to building within the national park), located in land of low agricultural value. At the planning stage, permission to build tourist facilities inside the park could have been obtained (seven tourist lodges were already located inside the park). However the company believed that the national parks should be set aside primarily for conservation and decide to site the facilities outside of the protected area and apply for permission to use the park only for wildlife viewing trips (IHRA/UNEP, 1996).

Best Practice Guidelines

? Ensure that your site plan is environmentally-friendly, minimising negative impacts on the natural landscape, local biodiversity and any existing cultural features found nearby.
? When selecting a site for any tourism facility, analyse the local availability of the following infrastructure elements and public utilities and services:
  - Conventional systems for providing electricity, drinking water, sewage, telephone line, public lighting.
  - Communication means: highways, roads, trails (tracks), airport, landing fields, railway, docks, etc.
  - Postal service, refuse collection and disposal, medical services, schools, commercial facilities, etc.
  - Local means of transport: land motor vehicles (bus, taxi, rent-a-car, etc.); regular commercial, charter, or private flights; motor boats, cruise ships, yachts, ferries; railway (schedules of nearest railway station), etc.
? Carry out a feasibility analysis for each site option before the particular site is selected. This analysis should include biophysical features of the site (climate, land, vegetation, wildlife, etc.) as well as socio-cultural features (local communities, traditional villages, archaeological sites,, etc.), and business aspects (comparative analysis of the different possible sites, suitability of location, market niche, profitability, long-term economic sustainability).
? In the case of an ecolodge, select a site which is within - or sufficiently near - a natural area of great ecotourism potential (i.e., an area with high flora and fauna values; perhaps supplemented by important cultural values). The ecolodge itself should not directly affect the focal (or flagship) ecotourism attractions of the area or visually compete with these attractions. In other words, a balance must be struck between easy accessibility to outstanding natural areas and minimisation of negative biophysical and cultural impacts (including visual impacts) of the environs.
? Consider travel distances as a siting criterion and the natural and cultural features that can be accessed from the site.
? Consider proximity of the lodging facility to airports and major transportation routes in the region. However, in the case of an ecolodge, it should not be too close to airports or major transportation routes due to the excessive noise and pollution.
? Analyse what benefit the local people will receive from the development of a tourism facility.
? Study possible environmental and cultural impact for each site for both the construction and operation phases of the development of the ecolodge. Consider both mid- and long-term scenarios for development impacts.
? Contract appropriate professionals to develop your site plan. The site plan should prominently include an analysis of the site in regards to its major biophysical characteristics and measures to minimise impacts.
? Every site plan should carefully consider existing and future vegetation. Tree preservation and reforestation are key elements. Regarding trees, always keep in mind the quadruple principle: remove, relocate, replace, restore.
? Carry out your landscaping using native plant species. Exotic plants are always out of place in a natural environment.

8.2 Ecodesign of Tourism Facilities

Overview

A new approach to architecture and physical facilities planning is needed, not only in tourism, but in all human activities, if we are really going to stop the irreversible damage to the environment, further pollution, and depletion of energy sources. This new approach should be based on the concept of *ecodesign*, which may be defined as "any form of design that minimises negative environmental impacts, by integrating itself into the surrounding ecosystem" (Ceballos-Lascurain, 1997b).

Tourism facilities should be particularly designed in an environmentally-friendly way, since they are frequently located in areas of great scenic beauty and ecological significance. Application of appropriate waste treatment methods and the use of alternative energy sources (especially in remote locations) are especially important items to be considered. Physical facilities should be technologically viable and adequate, and also socially acceptable and economically feasible. Joint ventures, communication and working with funding agencies can assist with addressing the expense of technologies. Physical planning and building (planning for expansion) should always be long term endeavours.

It is important to remember that economic benefits come from environmentally-friendly facilities and technologies.

Ecolodges are often located in remote and wild areas, and therefore very few typical infrastructural elements and services found in more traditional settings are available, such as access by paved highway, public transportation services, electric and telephone lines, piped potable water, public drainage and sewage, refuse collection and disposal, nearby school and medical services, shopping areas, etc.

For this reason, a totally new and different approach to physical planning is required, one based on a high level of functional, energy and food self-sufficiency. Before designing and building an ecolodge, realistically and clearly identify the specific characteristics of isolation and difficulty of access to infrastructural elements and public services and define beforehand the level of self-sufficiency you wish or need to attain.

Many nature tourists do not expect, in a poor rural area, the facilities found in rich cities and beach resorts. Some enjoy roughing it for a while, and are even prepared to pay more for the privilege. Certain standards will always remain non-negotiable though – especially security and basic hygiene.

For additional specific guidelines regarding architectural design and building of conventional mass tourism facilities, see Section 3.1.2.

Specific Examples of Best Practice from Selected Countries

1) Peru: Manu Lodge, located in the Amazonian rainforest, is a rustic facility using local building materials (wood, palm leaves, bamboos), designed in such a way that it is practically hidden in the deep forest, its building height well below the tree line. Situated in Manu Biosphere Reserve, one of the areas of major biodiversity in the world (1,100 species of birds), the lodge attracts ecotourists from around the world (especially US bird watchers), who are willing to pay US$200 per night, without having such conventional amenities as electric light (kerosene lamps are used instead), air conditioning or jacuzzi.

2) St. John, U.S. Virgin Islands: As an example of how apart from conventional materials (sand, gravel, wood), other materials recycled from other sources may be used, nearly all building materials at the Harmony Resort are made of innovative products from the waste stream of other industries, such as sawdust and plastic. The resort is now attempting "close the loop" on its own waste stream, by recycling bottles on-site into products such as glasses and tiles and recycling aluminium cans into table legs.

3) Costa Rica: As an example of "small is beautiful", currently, 65% of all hotels in Costa Rica have less than 40 rooms (46% of the total offer of available rooms in the country) and 75% of tourist ventures are in rural areas. This scale of facilities means providing a well distributed tourism benefit in many areas of the country, in many cases fostering family businesses. Research has shown that nature-oriented tourists prefer smaller, intimate accommodations than big, multi-storey hotels.

4) Nepal: In the Narayani Safari Hotel and Lodge, located just outside of the Royal Chitwan National Park, wooden beams, door and window frames from derelict houses on the land were reused for building the single-storey cottages of the hotel and lodge. Cottage roofs are made of locally-made tiles. Solar panels are used for water heating, lighting is provided through kerosene lamps.

Best Practice Guidelines

? Always endeavour to harmonise tourism facilities with the surrounding environment (both natural and cultural). Use architectural forms in harmony with the natural landscape (vegetation and land forms), designing with long-term environmental criteria. A tourism facility should always possess a sense of place.

? Ensure that your tourism facility minimises impacts on the natural and cultural environment and also acts as a tool for biodiversity conservation and to enhance natural ecosystems.
? Whenever possible, use local building materials and local hand labour.
? If local building materials are not available, bring materials from elsewhere, ensuring ease and economy of transportation and on-site assembly.
? Ensure that your design allows for possible future expansion, modifications and retro-fitting.
? Minimise negative environmental impact on site during the construction process. Clean up when you finish building each phase.
? Apply life-cycle assessments of all building materials to ensure that the best environmental and cost options are chosen.
? In the case of ecolodges and other tourism facilities located in natural areas:
  - Create the most appropriate access to your ecolodge, striking the right balance between ease of approach and minimisation of negative impacts on the natural environment. Limit the number of entry points to your site (preferably only one) in order to facilitate surveillance control and management.
  - Remember that paved highways are usually an invitation for all kinds of human settlement and that they stimulate branching effects. If there is no existing access paved highway and the distance from the tourism distribution points is a considerable one, sometimes there is less impact in developing a landing field for light planes than to build a paved highway.
  - Keep in mind that construction of highways, roads and other motorways within a natural area or near to it causes negative impacts to the natural resources that one wishes to protect. Consequently, they should be strictly limited and justified only if there are no other viable solutions.
  - Avoid building highways or motor roads with a width of more than 5m within a protected area or ecotourism destination. Wider roads become veritable barriers for wildlife mobility and also mar the natural landscape.
  - Whenever possible, use waterways (fluvial, ocean or lake), ensuring the use of boats with minimum negative impact. Avoid the use of internal combustion motors as much as possible within fragile areas such as mangroves or marshes. Consider the use of electric-powered boats. For short distances and wildlife-watching excursions it is best to use a rowboat, with good stability. These waterways are often crucial to local fishermen and hence the local economy. Thus, their use is a sensitive issue and needs to be negotiated.
  - Minimise impermeable surfaces when possible to reduce runoff and maximise groundwater recharge.
  - Not all protected areas should have built facilities inside their boundaries. Sometimes these facilities are preferably placed in the nearby community or in the buffer zone. Always proceed according to the management plan of the protected area (if it exists).
  - Interpretative centres (as part of a broader interpretative programme) are needed in most ecotourism destinations, including protected areas, but each case should be carefully analysed.

8.3 Waste Management
Overview

The management of waste is a crucial conservation problem in both urban and rural areas, including natural areas (legally protected or not). The basic premise of a tourism facility operation is minimising waste generation, since this is one of the main causes of degradation of the surrounding environment. The best attitude towards trash is to avoid it as much as possible, instead of finding ways of treating it.

Try to use biodegradation practices as much as possible. In the process of biodegradation, microorganisms break down the products of other living things and incorporate them back into the ecosystem. Biodegradable or bioconvertible material includes anything that is organic. Plastics are not considered includable in this category, despite industry contention that they are.

A material doesn't become waste until it is thrown into the dust bin. If a material can be reused it is a resource, not waste.

Specific Examples of Best Practice from Selected Countries

1) Hungary: Through recycling initiatives and compacting non-recyclable waste, the Budapest Hilton's overall waste volumes were reduced by more than 30 % (IHRA/UNEP, 1996).

2) Sweden: **The Sanga Saby Conference & Study Centre has set up a waste separation programme that ensures the separation of paper, aluminium, organic waste from kitchen and garden , glass, batteries, and other hazardous waste substances. A waste water treatment plant, located on site, was entirely renovated and now includes a 3-stage water purification system**. The water first passes through mill strainers and then purified by oxygenation using air compressors. At the final precipitation stage PAX 21 (a substance free from chloride aluminium) is added to sink sludge. Residues are destroyed by bacteria before water is transported to the municipal sewage treatment plant. Waste water from the kitchen goes through a separate cycle where fats enter a separating tank before reaching the sewage plant for further treatment (IHRA/UNEP, 1996).

3) Australia: **At Great Keppel Island Resort in Australia, paper, cardboard, garden waste, sewage sludge and some food scraps (no oils, fats or sauces) are shredded, composted for several weeks, and the fed to the worms at the resort's worm farm.** Within several months, the worms produce a rich product that is used in the resort's gardens instead of fertiliser (Sweeting et al., 1999).

4) Australia: the Rainforest Habitat n Port Douglas also set up a worm farm, into which it dumps a large portion of wood scraps, leaf litter and animal droppings from the property. The worms eat the decomposing material, creating excellent fertiliser. The worms themselves are fed to both birds and mammals on the sanctuary. The worm farm produces no odour, is easy to care for, reduces disposal costs and reduces environmentally destructive waste (Sweeting et al., 1999).

5) India: The Taj Jungle Lodge at Thekaddi, wastewater is discharged into the root zone at a subsurface level of sturdy plants with tubular roots, the plants purifying the wastewater by feeding off the organic material.

6) Thailand: The Phuket Yacht Club donates organic wastes for a different productive uses, including 400 litres of organic waste per day to a local pig farm.

7) Canada: To avoid pollution from water discharge, the Hotel Vancouver in British Columbia, replaced chlorine with a baking soda and salt solution in its pools, saving US$1,300 per year in the process.

Best Practice Guidelines

? As regards waste management, always apply the quadruple principle: recycle, reuse, refuse, reduce.
? Reuse wastewater (both grey and black) as much as possible. Create systems in which water goes through several uses before being disposed of, utilising it for flushing toilets, and as irrigation or fertiliser for cultivations (whenever possible). Always avoid using potable water for irrigating. In case you re-use both grey and black waters, separate lines and septic systems must be installed.
? In general, use products that minimise waste and are not toxic. Whenever possible, convert biodegradable waste to compost, utilise the biomass or submit the waste to digestive anaerobic systems.
? Whenever possible, use constructed wetlands treatment systems, which are engineered systems that have been designed and constructed to utilise the natural processes involving wetland vegetation, soils, and their associated microbial assemblages to assist in treating wastewater. They are designed to take advantage of many of the same processes that occur in natural wetlands, but do so within a more controlled environment.
? Compost biodegradable wastes and make use of the resulting fertiliser or sell it.
? In order to save water, use dry toilets (and pit latrines, in cases of extreme isolation and budget restrictions), always designed to minimise negative impacts on the environment.

8.4 Energy Conservation, Bio-climatic Design and Alternative Energy Sources

Overview

In every type of tourism facility and operation saving energy, water and other precious resources by applying the most appropriate available technologies, should occupy the highest priority.

There are various methods for meeting the energy and vital resource needs of a tourism facility. The most common practices around the world involve recurring to conventional methods, such as public utilities (electricity, water, gas, telephone), conventional fossil fuels, and fuelwood. But there are many alternative practices that should be advanced in all types of buildings, including tourism facilities (both in urban and rural settings), since they are more environmentally friendly, minimising impacts and also reducing costs. Some of these alternative practices involve design techniques that allow for natural ventilation, heating, lighting, and rain water catchment, while others use energy sources such as solar power, wind power, low-scale hydroelectricity, geothermal power, natural gas and biomass. Solar energy especially has an enormous potential (both for heating water and for generating electricity) but so far is not exploited to its full potential in the majority of countries and regions (Ceballos-Lascurain, 1997b).

Tourism facilities, including ecolodges, should make use of this wide spectrum of alternative technologies. The extra energy that could be made available through the use of various conservation techniques is one of our most underused and invisible resources. Low-energy lighting should be widely preferred over conventional, incandescent bulbs. Water use in toilets and showers must also be drastically reduced and this can be achieved in many ways, including such easy techniques as placing bottles filled with sand in the flushing tank, flow-reducing shower heads, etc.

Specific Examples of Best Practice from Selected Countries

1) Australia: **J's Bay YHA Hostel in New South Wales, has designed all rooms to maximise the natural ventilation from the prevailing winds, and external screens have been fitted to shade windows from direct sunlight. Ceilings are well insulated to minimise heat transfer into the rooms. No air conditioning is required to cool the rooms. A single ceiling fan, which requires a fraction of the energy to operate, is enough to keep the rooms comfortable cool throughout the year** (Sweeting et al., 1999).

2) Hungary: By using energy-saving light bulbs, the Budapest Hilton has reduced the energy bill by 13%, or US$40,000 per year. Low flush toilets have been used in the newly restored bathrooms. Guests can choose to re-use towels or have them changed daily, which reduces water and laundry detergent use, and effluent (IHRA/UNEP, 1996).

3) Malaysia: River tours from the Sukau Rainforest Lodge in Sabah make use of quiet electric motors when viewing wildlife, since it was recognised by the owner that electric motors can significantly reduce disturbance and increase the likelihood of seeing wildlife, apart from minimising pollution effects.

4) India: The Hotel Guestline Days in Tirupati is designed in a Y shape to optimise the use of natural light. The ceiling on the top floor is lined with a 75mm thick layer of expanded polysterene which acts as a heat insulator, keeps the indoor temperature at a lower level and brings down air conditioning costs. Showers are installed instead of baths. Rain water is collected (especially during the monsoons) and used for many purposes, including toilet flushing.

5) Canada: By simply putting sand-filled bottles in toilet tanks to reduce flush volumes in 25 % of its rooms, the Hotel Beausejour in New Brunswick saved 100,000 litres of water per year.

6) Australia: At the Frogs Hollow Lodge in Darwin, up to 50% of hot water requirements are met by solar water heaters on the roof.

Best Practice Guidelines

? Apply bio-climatic design criteria, which means understanding the physical setting of your facility, the local climate, including prevailing winds, solar radiation, appropriate local materials, biodegradation, surrounding vegetation, etc., and applying simple physical and biological principles.

? Consider the sun's positioning when choosing the orientation of your tourism facility so as to maximise use of natural light and trap incoming solar radiation to heat interior spaces, taking note that in the northern hemisphere the sun is mainly shining from the south and in the southern hemisphere the situation is reversed. To maximise your "solar window", the slope of the roof (in degrees) should be roughly equal to the latitude of your site.

? Analyse in each case the convenience of applying solar energy for heating water and for generating electricity (photovoltaic systems), as well as other alternative, environmentally-friendly energy sources, such as wind power, biomass, geothermal energy, etc.

? A good option in isolated areas with no access to a conventional power grid is the use of photovoltaic cells (based on the use of silicon) for converting solar energy in electric energy (usually 12 volts DC). Some models offer both options of 12 volts DC and 110 volts AC (using the second alternative, the battery obviously drains down faster). There is presently a choice in photovoltaic cells between four technologies: monocrystalline, polycrystalline, semicrystalline, and amorphous silicon. The four technologies are now available commercially (fundamentally Japanese, German, and U.S. producers) and all have different comparative advantages. Typical monocrystalline silicon cells have an efficiency of about 10-20 %, but are quite more expensive than polycrystalline cells (which have an efficiency of 4-5 %). Amorphous cells are even cheaper but also less effective. In every case, electric storage is by lead-acid deep-cycle batteries, similar to those used in golf carts.

? Use techniques such as the so-called Trombe wall, which consists of storing solar energy in a sun-facing wall, made of heavy masonry material, such as brick, stone, block, or earth, with a dark-colored surface toward the sun. As the sun's rays shine on the wall, generated heat is stored and circulated passively (especially during the evening) through wall vents into the living areas.

? The architect should pay special attention to water management when planning a tourism facility, especially given the critical water situation in some nations, which at times experience severe droughts. Use water catchment methods whenever possible. At all times, maintaining the drinking quality of this scarce commodity is of paramount importance.

? In the design of your lodge or other tourism facility apply cross-ventilation, which implies placing openings in opposite and parallel walls so as to induce natural air flow from outside and cooling interior spaces. In this way you will be contributing to the elimination of air conditioning systems, which consume enormous amounts of electricity and also cause damages to the ozone layer. As is well known, increasing the air movement helps evaporation from the skin and makes humans feel fresher and more active. Fortunately, in many hot areas there are prevailing winds that can cool facilities by natural ventilation.

? Whenever possible, apply "zero emission" and other environmentally-friendly technologies.

9. The Role of NGOs in Linking Biodiversity Conservation and Tourism

Overview

Since frequently there are not clear facilitators between tourism and biodiversity conservation, there is an important role for non-profit organisations to promote the connection between the decision-makers of these two sectors. For this reason, more and more conservation NGOs around the world are developing specific programmes in their agenda, seeking to link in a practical way biodiversity conservation endeavours with sustainable tourism activities. These NGOs require clear signals as to where they need to move towards if they are to assist in appropriate conservation/biodiversity interaction.

A number of conservation NGOs with an international scope, such as IUCN, WWF, Conservation International and The Nature Conservancy, are carrying out specific activities attempting to provide this symbiotic link between biodiversity conservation planning and tourism. The agendas of these NGOs include: carrying out research in linking both fields, developing national and regional ecotourism strategies, applying a local capacity building approach, acting as liaison between local communities and the sustainable tourism industry, carrying out ecotourism product development, endeavouring to involve mainstream tourism in conservation practices, and developing international marketing for ecotourism products and destinations.

NGOs working at the different national and local levels are also in a position to actively assist in carrying out research attempting to achieve a symbiotic interaction between biodiversity conservation and tourism.

Specific Examples of Best Practice from Selected Countries

1) Costa Rica: A number of Costa Rican NGOs, apart from being dedicated primarily to environmental research and education and the building of awareness on the importance of biodiversity, also carry out sustainable tourism activities (many of these with emphasis on ecotourism), which tend to foster biodiversity conservation, such as the Tropical Scientific Center (CCT), the Monteverde Conservationist Association (ACM), the Biodiversity National institute (INBio) and the Neotropic Foundation. INBio, for example, has training programmes on topics related to biodiversity, as well as on environmental education and interpretation. Currently, INBio aims many of its training activities at tour operators, nature guides, protected areas (SINAC) staff and members of rural communities throughout the country. Currently, this non-profit organisation is carrying out a series of ongoing courses called "Biodiversity, Safety, Prevention and Rescue", offered to ecotour and adventure guides from Costa Rica and other Central American countries. These courses are being organised in coordination with the Costa Rican Red Cross and the Costa Rican Tourism Institute (ICT). National level NGOs also have a fundamental role that complements and strengthens SINAC's work. There are strategic alliances between SINAC and non-profit organisations and companies in the private sector,

2) Canada: This country has a number of long-established NGOs which are active in advocating for parks and protected areas – the Canadian Parks and Wilderness Society (CPAWS), the Canadian Nature Federation (CNF), Sierra Club, WWF, and provincial/territorially based environmental NGOs, such as the Alberta Wilderness Association. As an example, the CNF is a non-profit conservation organisation with over 40,000 supporters and a network of more than 100 affiliated naturalist groups. The CNF's mission is: to protect nature, its diversity and the processes that sustain it. The CNF has a number of volunteer projects to help monitor the environment. Such NGOs tend to be supportive of appropriate forms of tourism, including ecotourism. NGOs have been instrumental in advancing biodiversity conservation efforts and contributing to related law and policy in Canada. These organisations have purchased land for conservation purposes, produced guides and training materials, raised public awareness and worked cooperatively with government and industry on joint ventures ranging from large ecosystem projects to local watershed planning and species-recovery programs. Research, education and conservation institutions have made critical commitments. Facilities such as zoos, aquariums, universities, museums, arboreta and botanical gardens are committed to biodiversity research and education, and direct such areas as the captive breeding of endangered species.

3) International: Conservation International (CI), a US-based NGO, has an Ecotourism Department which promotes ecotourism development in a number of countries around the world. CI's mission in ecotourism is to act as a liaison between local communities and the tourism industry in order to develop and support economically sustainable ecotourism enterprises that contribute to conservation and serve as models for other ecotourism initiatives; and to develop and disseminate tools for ecotourism that influence the broader tourism industry towards greater ecological sustainability. Main activities are: developing national/regional ecotourism strategies, capacity building, ecotourism product development, and international marketing. Specific actions in different countries have been: the Scarlet Macaw Trail in Guatemala, Train-the-Trainers Workshops in Brazil, assistance in developing the Chalalan Ecolodge in Bolivia, and the Ecotravel Center (an Internet home-page dedicated to providing information for the ecotourist). See: http://www.ecotour.org/ecotour.htm

Best Practice Guidelines:

?   Work with communities, acting as a catalyst, developing leadership training, technical advise and ecotourism training.
?   Carry out ongoing and training and education programmes for tour operators and guides.
?   Act as watchdogs, in vigilance of negative interaction between biodiversity conservation and tourism.
?   Provide technical assistance to governments.
?   Carry out fund raising for capacity building, ecotourism projects, and ecotourism product development.
?   Carry out certification of tourism facilities and operations.
?   Carry out joint planning strategies with local communities, particularly with rural and aboriginal communities.
?   Provide role models for sustainable tourism (including ecotourism excellence awards) and carry out demonstration projects
?   NGOs need to have a transparent process where there are clear goals and these are fulfilled, thus avoiding . disappointments and frustration from local communities.
?   Promote the concept of what is an NGO and allow the concept of ecotouris m business to permeate conservation activities.
?   NGOs must not create dependence of communities.
?   All projects undertaken by NGOs must be sustainable and long term ventures.
?   Seek ways by which international or foreign NGOs can encourage development of local NGOs and local participation in foreign NGO activities, but always according to national objectives.
?   Foster "indigenisation" of NGOs, transferring power to local communities (especially native groups).
?   Strive to incorporate gender issues in NGO promoted activities.

APPENDIX I.

REFERENCE TO THE 12 SELECTED COUNTRY CASE STUDIES

The following are the twelve country case studies on Biodiversity/Tourism that were selected for inclusion (after a careful analysis of almost 60 proposals that were received from 36 countries around the world) in the BPSP Biodiversity/Tourism Study, with their corresponding authors and e-mail addresses:

1. Belize Case Study by Mr. Wiezsman Pat mundomaya@btl.net
2. Botswana Case Study by Ms. Mary C. Kalikawe conso90@hotmail.com
3. Canada Case Study by Ms. Pam Wight pamwight@superiway.net
4. Chile Case Study by Mr. Juan Oltremari joltrama@puc.cl
5. Costa Rica Case Study by Ms. Natalia Zamora and Ms. Vilma Obando nazamora@inbio.ac.cr, vobando@inbio.ac.cr
6. Kazakhstan Case Study by Mr. Igor Glukhovtsev/ and Dr. Lyailya Yermekbayeva cbdkz@koktem1.samal.kz
7. Korea Case Study by Dr. Seong-il Kim ecotour@chollian.net
8. Mexico Case Study by Mr. Jorge Belmonte sectur17@supernet.com.mx
9. Peru Case Study by Mr. Joaquin A. Ugarte and Ms. Lizzie Pacheco aedes@aedes.com.pe
10. Seychelles Case Study by Mr. John Nevill chm@seychelles.net
11. South Africa Case Study by Ms. Anna Spenceley spenceleya@nu.ac.za
12. Trinidad & Tobago Case Study by Mr. Eden Shand eashand@trinidad.net

APPENDIX II. GLOSSARY

Adventure tourism. Seen more as a commercial label for certain nature tourism activities that require special physical skills and endurance and involves a degree of risk-taking.

Agenda 21. A document adopted by the UN Conference on Environment and development meeting in Rio de Janeiro in June 1992, representing a programme for the 21st century. The conference was held on the twentieth anniversary of the UN Conference on Human Environment which met in Stockholm in June 1972. Agenda 21 reviewed and developed the achievements of that first conference.

Biodiversity. Biological diversity. The variety of life in all its forms, levels and combinations. Includes ecosystem diversity, species diversity, and genetic diversity.

Biosphere. The thin covering of our planet that contains and sustains life.

Carrying Capacity. Capacity of an ecosystem to support healthy organisms while maintaining its productivity, adaptability, and capability of renewal.

Conservation. The management of human use of organisms or ecosystems to ensure such use is sustainable. Besides sustainable use, conservation includes protection, maintenance, rehabilitation, restoration, and enhancement of populations and ecosystems.

Ecodesign. Any form of design that minimises negative environmental impacts, by integrating itself into the surrounding ecosystem.

Ecolodge. According to The International Ecotourism Society (TIES), "the term ecolodge is an industry label used to identify a nature-dependent tourist lodge that meets the philosophy of ecotourism" (Hawkins et al., 1995). At a purist level, an ecolodge will offer a tourist an educational and participatory experience, be developed and managed in an environmentally sensitive manner and protect its operating environment. An ecolodge is different from mainstream lodges, like fishing and ski lodges and luxury retreats. It is the philosophy of ecological sensitivity that must underlie, and ultimately define, each operation.

Ecosystem. A system of plants, animals and other organisms together with the non-living components of their environment.

Ecotourism. A subset of sustainable tourism, referring to tourism that is carried out in relatively undisturbed natural areas (a concept which covers a wide spectrum, from pristine nature to more or less degraded habitats) and which serves as a tool for conservation and sustainable development of local communities. The IUCN definition is: "Ecotourism is environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features - both past and present) that promotes conservation, has low negative visitor impact, and provides for beneficially active socio-economic involvement of local populations" (Ceballos-Lascurain, 1996). The main components and issues that should be considered in any ecotourism activity are, broadly speaking: nature, local community, economics, conservation, culture, and interpretation.

EIA. Environmental Impact Assessment. The critical appraisal of the likely effects of a policy, plan, programme, project or activity, on the environment.

Environment. A concept which includes all aspects of the surrounding of humanity, affecting individuals and social groupings.

Life-support service. An ecological process that sustains the productivity, adaptability and capacity for renewal of lands, waters, and/or the biosphere as a whole.

Nature tourism. Embraces all tourism directly dependent on the use of natural resources in a relatively undeveloped state, even if the use of the natural resources by the tourist is neither wise nor sustainable. It includes activities such as hunting, countryside motorbiking, mountain biking, and white-water rafting.

Precautionary principle. A guiding rule in EIA to protect people and the environment against future risks, hazards, and adverse impacts, tending to emphasise safety considerations in the occasional absence of clear evidence.

Protected Area. An area dedicated primarily to protection and enjoyment of natural or cultural heritage, to maintenance of biodiversity, and/or to maintenance of life-support services.

Sustainable development. Improving the quality of human life while living within our ecological means. Development which provides economic, social, and environmental benefits in the long term, having regard to future generations.

Sustainable tourism. An umbrella concept, embracing all types of tourism which maintain the environmental, social and economical integrity and well being of natural and cultural resources in perpetuity. In other words, it is any kind of tourism development that contributes to sustainable development. At the beginning of the 21st century every human socio-economic activity should be sustainable, including tourism.

World Heritage listings. Those natural and/or cultural assets considered by the UN Educational, Scientific and Cultural Organisation (UNESCO) to be of 'outstanding universal value, the destruction or disappearance of which would constitute harmful impoverishment of the heritage of all nations of the world.

APPENDIX III: Annotated Bibliography

Integrating Biodiversity into the Tourism Sector
Report submitted to UNEP/UNDP/GEF/BPSP

Annotated Bibliography on Biodiversity/Tourism

Selected references by Hector Ceballos-Lascurain,
International Coordinator of the BPSP Study on Biodiversity/Tourism
Director General PICE
Programme of International Consultancy on Ecotourism

June 2001

The following annotated bibliography includes printed material as well as on-line documents. Every reference includes mention of the main themes discussed and corresponding region or regions, according to the following scheme:

Theme:
BCP - Biodiversity Conservation and Planning
ST - Sustainable Tourism
ET - Ecotourism
HE – Hotels, Ecolodges, and Physical Facilities
EC – Economics (includes business, finance, socio-economic issues)
PA – Protected Areas

Region:
W - World
AM – Americas (North, Central and South America, Caribbean)
AF – Africa
AS - Asia
OC - Oceanía
E - Europe

Alderman, Claudia L. 1994. *The Economics and the Role of Privately-Owned Lands Used for Nature Tourism, Education, and Conservation* in **Protected Area Economics and Policy. Linking Conservation an Sustainable Development.** The World Bank and The World Conservation Union (IUCN).   Washington, DC.

Theme: ET, EC, PA
Region: AM, AF

This research was carried out through a mail survey of 93 private reserves in Latin America and Africa. The goal of the study was to evaluate the role of nature tourism in private reserves and to assess the potential of private reserves as a tool for conservation, education , and development. The survey's results indicate that private reserves generate substantial local employment, this being particularly true about reserves that cater to nature tourism. A high percentage of the private reserves said that one of their major problems was lack of government cooperation. The long-term survival of these reserves as protected areas could be fostered by development links between the reserves and government agencies and NGOs.

Ashley, Caroline. 2000. **The Impacts of Tourism on Rural Livelihoods: Namibia's Experience**. **Working Paper 128.** Overseas Development Institute (ODI). ISBN 0 85003 461 2 £6.00. London, UK.

Theme : ST, EC, PA, BCP
Region: AF

This paper assesses the wide range of impacts that tourism has on the livelihoods of rural residents in parts of Namibia. It aims to serve two purposes. First it illustrates that a focus on livelihoods offers a useful perspective on tourism for enhancing local benefits. It contrasts with conventional tourism perspectives which tend to focus exclusively on either economic, commercial or environmental impacts. It also contrasts with narrow assessment of local benefits focusing only on job creation and cash income. Taking a livelihoods perspective helps identify the wide range of impacts - direct and indirect, positive and negative - that matter to local people. Second, the paper aims to show how tourism's contribution to livelihoods can be enhanced by adjusting decisions on what is developed and how, in ways that reflect people's livelihood priorities. This has implications for how tourism planners, other policy-makers, communities, businesses and NGOs work. While some implications are context-specific, others have more general relevance to tourism practitioners elsewhere. A more detailed summary is available at: http://www.odi.org.uk/publications/summwp128.html

Asociación Ecuatoriana de Ecoturismo. 1998. **Políticas y Estrategias para la Participación Comunitaria en el Ecoturismo.** ASEC. Quito, Ecuador.

Theme : EC
Region: AM

With the purpose of developing a participative consulting process for strengthening the role of local communities in ecotourism, ASEC carried out a project called "National Forum On Community Participation in Ecotourism". This book is the result of that Forum. For the first time in Latin America, guidelines for ecotourism policies and strategies based on sustainable community participation have been set up. Available from the International Ecotourism Society: http://www.ecotourism.org

Barkin, David. N/d**. Social Tourism in Rural Communities: An instrument for promoting sustainable resource management**

Theme : EC, ET
Region: M, AM

This paper offers a serious reconsideration of how socially responsible sustainable tourism might be designed. Drawing on his extensive experience in Mexico and his work with the Environment Latin America Network, this paper offers a useful introduction for everyone interested in the subject, with several case studies cited. Available from:
  http://kiskeya-alternative.org/publica/diversos/barkin-social-tourism.html

Blangy, Sylvie (ed.) 1993. **Tourisme et Environnement: du Tourisme de Nature à l'Écotourisme.** Les Cahiers Espaces. Hors-série février 1993. SARL – ETE. Paris, France.

Theme : EC, PA
Region: E

This was one of the first documents to appear in Europe, discussing nature tourism and ecotourism (especially in the European context), and perhaps the first comprehensive one written in the French language. The book contains the following sections: national and regional policies (especially European case studies), nature tourism (demand aspects and different experiences), touristic evaluation of the natural heritage, and ecotourism (concept, experiences and projects). Although now somewhat outdated, it contains much interesting information. Available from Editions Touristiques Europeennes, tel. (1) 4327 5590, Paris, France.

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Brandon, Katrina. 1996. **Ecotourism and Conservation: A Review of Key Issues.** Environment Department Paper N° 033. Biodiversity series. The World Bank. Washington, DC.

Theme : ET, EC, PA
Region: W

This paper reviews experiences with ecotourism across the globe. Despite tremendous differences in size and management of protected areas, cultures, types of ecotourism enterprises and government involvement, in most cases, ecotourism and nature-based tourism have not lived up to expectations. Nevertheless, they remain a potential avenue for conservation. Ecotourism can generate benefits to local communities such as employment, although these are frequently seasonal or low-paying jobs.   Despite such problems, ecotourism represents one of the few areas where the link between economic development and conservation of natural areas is potentially clear and direct. This paper offers a set of recommendations which diverse organisations and groups may implement to help ecotourism serve as a vehicle to provide environmental, socio-economic, and cultural benefits at both local and national levels.

Budowski, Gerardo. 1976. *Tourism and Environmental Conservation: Conflict, Coexistence or Simbiosis?* in **Environmental Conservation 3(1): 27-31.**

Theme: BCP, ST, EC
Region: W

This ground breaking article describes three different relationships that can exist between tourism and nature conservation: conflict, coexistence, or symbiosis. It is suggested that most cases have a coexistence relationship, moving towards conflict. This is critically important, considering the rapid increase in tourism based on natural resources. Initial steps to counter this negative trend are to exclude visitor amenities from natural areas and to disallow tourism agencies from managing natural areas. In all cases, conservation should be given highest priority for natural area planning. Several ways in which tourism can invest in tourism are listed.

Butler, R.W. 1991. *Tourism, Environment, and Sustainable Development* in **Environmental Conservation 18 (3): 201-209.**

Theme: ST, ET
Region: W

Butler argues that promoting tourism as a sustainable development alternative is "simplistic and naïve". All tourism developments depend on the environment for their well-being, but lack of knowledge, responsibility, and long-term planning has very often resulted in degraded environments and altered local cultures. There are very few examples where tourism and the environment are being managed on a symbiotic basis. Tourism can be a powerful force to encourage evironmental preservation but will inevitably cause local impacts, the level of which depends in planning and management commitments. Butler expounds four categories of possible solutions to reduce the pressure of tourism: i) curbing tourist numbers, ii) changing tourist type, iii) changing the resource for resistance, and iv) educating all concerned.

Biodiversity Convention Office. 1995. **Canadian Biodiversity Strategy: Canada's Response to the Convention on Biological Diversity**. Environment Canada: Hull, Quebec.

Theme: BCP, PA, EC
Region: AM

The whole text of the Canadian Biodiversity Strategy (one of the best strategies in this field worldwide) is available for free on this web site. Main chapters are: Our Living Legacy, Conservation and Sustainable Use, Ecological Management, Education and Awareness, International Cooperation (particularly interesting for our study), Implementation, and Indigenous Community Implementation.

http://www.bco.ec.gc.ca/DocumentPublications_e.cfm

Biodiversity Convention Office. 1998. **Caring for Canada's Biodiversity: Canada's First National Report to the Conference of the Parties to the Convention on Biological Diversity**. Environment Canada: Hull, Quebec.

Theme: BCP, PA, EC

Region: AM

This First Report is to summarise progress, lessons learned, and challenges to implementing Article 6 of the Convention on Biological Diversity (CBD). Main sections include: the nature of Canada's biodiversity, threats to Canada's biodiversity, laying the foundation to implement the CBD, major challenges and early responses to implementing the Convention in Canada, training and education, legislation and incentives, international cooperation (sharing Canada's experience). The whole text of this report is available for free on the following web site:

http://www.bco.ec.gc.ca/DocumentPublications_e.cfm.

Canadian Tourism Commission. 2001. **CTC Strategic Plan 2001/2002**

Theme: ST, ET, EC; PA
Region: AM

The whole text of this Strategic Plan is available on the following website:

http://www.ctc-ctx.com/en/ctc/ctx/login/pdf/ctcplan.pdf

Canadian Tourism Commission. 2001. **Annual Report 1999 – Working Together, Succeeding Together**.

Theme: ST, ET, EC; PA

Region: AM

This report contains much interesting information on the institutional, operational and planning aspects of tourism in Canada. The whole text is available for free on this website:

http://www.ctc-ctx.com/en/ctc/partner_centre/pdf/annual_report1999E.pdf

Caribbean Alliance for Sustainable Tourism. 1999. **Manual de Manejo Medioambiental para Hoteleros Caribeños.** CAST. San Juan, Puerto Rico.

Theme: HE, ST, ET,
Region: AM

This handbook, written in Spanish, provides practical guidelines for environmentally-friendly operation of hotels in the Caribbean region. It includes sections on ecological hotel management, cleaning, food processing, maintenance engineering, gardening, beach management, recreation amenities, site planning, and ecodesign of physical facilities.

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Ceballos-Lascurain, Hector. 1994. **Estrategia Nacional de Ecoturismo Para Mexico.**
Secretaria de Turismo. Mexico, DF.

Theme: ET, ST, BCP, HE, EC, PA
Region: AM

This was the first national ecotourism strategy ever published in Latin America. The author
developed this document for the Mexican Ministry of Tourism. Apart from defining basic
concepts of sustainable tourism, ecotourism, and ecodevelopment, it contains practical
strategic guidelines for planning the different activities of ecotourism. It also identifies
circuits and regions of ecotouristic relevance in Mexico. 3 chapters can be consulted for
free at: http://www.planeta.com/ecotravel/mexico/ceballos1.html

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Ceballos-Lascurain, Hector. 1996. **Tourism, Ecotourism, and Protected Areas**. The
World Conservation Union(IUCN) and The International Ecotourism Society. Gland,
Switzerland. 315 pages.

Theme: ET, ST, BCP, HE, EC, PA
Region: W

A comprehensive survey, this is the first text available devoted to the positive and negative
impacts of tourism on parks and protected areas world wide. It includes well-presented case
studies and offers a good summary of current tourism management techniques, making it a
must for natural resource managers, researchers, and students seeking to use tourism as a
conservation tool. Comprises discussions on the concepts of ecotourism, sustainable
tourism, and nature-based tourism. Ample section on environmentally-friendly
architectural design of ecolodges and other facilities for ecotourism. Includes many
photographs, figures and an extensive bibliography.

Ceballos-Lascurain, Hector. 1997a. **Report on Ecotourism Survey of Selected South
African Protected Areas and Ecotourism Sites.** Grupo Posadas. Mexico, DF.

Theme: ET, ST, BCP, HE, EC, PA
Region: AF

This report describes the findings of the author during a field survey of selected protected
areas and ecotourism sites in South Africa, conducted in 1996. Main subjects covered are:
overview of sustainable tourism and ecotourism in South Africa; ecotourism attractions;
protected areas; local communities; ecolodge design, building and operation; biodiversity
conservation; main issues and constraints.

Ceballos-Lascurain, Hector. 1997b. **Ecolodge Development in Coastal and Desert Zones
of Egypt**. Report for Winrock International/U.S.-AID. Arlington, Va, USA.

Theme: ET, ST, BCP, HE, EC, PA
Region: AF

This technical report provides very detailed guidelines for ecolodge development in coastal and desert zones of Egypt, including sections on infrastructure; regional planning; zoning; site planning; ecodesign, ecotourism facilities; ecolodge design, building and operation; waste management; energy conservation and alternative energy sources.

Ceballos-Lascurain, Hector. 1998. **Ecoturismo, Naturaleza y Desarrollo Sostenible**, Editorial Diana, Mexico DF.

Theme: ET, ST, BCP, HE, EC, PA
Region: AM

A practical handbook dealing with all aspects of ecotourism planning and development. Intended as a text book, and widely used in universities across Latin America, this book covers a wide range of topics: strategic guidelines for planning, inter-sectoral coordination, local community involvement, inventories of ecotourism attractions, minimising negative environmental and cultural impacts, carrying capacity, physical planning and architectural design of ecotourism facilities, training, environmental education, self-financing mechanisms, promotion and marketing. 3 chapters of this book can be consulted FOR FREE at: http://www.planeta.com/ecotravel/mexico/strategy/ecoturismohcl.html

Ceballos-Lascurain, Hector. 1999. **The Marriage Of Architecture And Ecotourism.** Paper presented at the South Pacific Tourism Conference (SPTC) , held in Samoa, October 1999.

Theme: HE, ET, ST, EC
Region: W

This paper discusses the need for environmentally-friendly architecture, applied to ecotourism and sustainable tourism facilities. Discusses ecotechniques, alternative energy sources, site planning, minimisation of negative impacts, local building materials, energy-saving procedures, waste treatment. This paper can be seen for free online: http://www.sptc.org.fj/hector.html

Ceballos-Lascurain, Hector. 2000. **Red Mexicana de Ecoturismo. Ecotourism Champion: A Conversation with Hector Ceballos-Lascurain by Ron Mader.**

Theme: ET, ST, BCP, EC, PA
Region: W

This online interview deals with many subjects related to ecotourism, biodiversity conservation, and sustainable development.
http://www.greenbuilder.com/mader/planeta/00/0005qahectorceballos.html

Ceballos-Lascurain, Hector. 2000. **Relevant Ecotourism Experiences Around the World**. Special presentation at Fundación Miguel Alemán, Mexico City.

Theme: ET, ST, BCP, EC, PA
Region: W

This brief paper describes ecotourism development around the world, highlighting personal experiences of the author in over 30 countries. Main themes covered are: ecotourism as a tool for sustainable development; involving local communities; inventories of ecotourism attractions; biodiversity conservation; protected areas; site planning; ecolodge development; difficulties, constraints and opportunities; future trends.

Ceballos-Lascurain, H., J. A. McNeely, J.W. Thorsell. 1991**. Guidelines for Development of Terrestrial and Marine National Parks and Protected Areas for Tourism** WTO/UNEP/IUCN. Madrid, Spain.

Theme: ET, ST, BCP, PA
Region: W

This report examines the various issues involved with sustainable tourism and ecotourism in terrestrial and marine national parks. The authors review tourism's costs and benefits, according to economic, social and environmental categories. Other topics include criteria for selecting national parks for tourism, tourism carrying capacity, planning for tourism in national parks, guidelines for facility development, and guidelines for education and interpretation. Contains many colour photographs. Available from WTO: **www.world-tourism.org**

Chester, Guy (ed.). 2000. **Mohonk Agreement. An agreed framework and principles for the certification of ecotourism and sustainable tourism.** GHD Management Engineering Environment.
New York, USA.

Theme: ET, ST, BCP, PA, EC
Region: W

This document describes the Mohonk Agreement, which is an agreed framework and principles for the certification of ecotourism and sustainable tourism, which was unanimously adopted at the conclusion of an international workshop held at Mohonk Mountain House, New Paltz, New York in November 2000. The document contains a set of general principles and elements that, according to the workshop participants, should be part of any sound ecotourism and sustainable tourism certification programmes. It was recognised that tourism certification programmes need to be tailored to fit particular geographical reasons and sectors of the tourism industry, and agreement was reached on a basic set of principles that, in the opinion of the workshop participants, must frame any ecotourism and sustainable certification programme It was agreed that the development of a certification scheme should be a participatory, multi-stakeholder and multi-sectoral process (including representatives from local communities; tourism businesses, governments, non-governmental organisations, community-based organisations, and others). Additional information may be obtained from:
Guy Chester, Manager Environmental Services, E-mail: gchester@ghd.com.

Coelho Marques, Luciana. 2000. **An evaluation of ecolodges in the Brazilian Amazon**

Theme: ET, HE
Region: AM

This paper discusses ecotourism and identifies ecolodge criteria. It further compares and analyses several lodges in Brazilian Amazon. Available from: http://kiskeya-alternative.org/publica/diversos/ecolodge-brasil.html

CONABIO. 2000. **Estrategia Nacional sobre Biodiversidad de México.** Secretaria de Medio Ambiente, Recursos Naturales y Pesca (SEMARNAP). Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO). México, DF (available only in Spanish).

Theme: ST, ET, PA
Region: AM

This official document describes the National Biodiversity Strategy for Mexico. It contains three main parts: background information on biodiversity, the Strategy itself, and the Action Plan. The Strategy's goal is to accomplish the objectives of the Convention of Biological Diversity (CBD) by means of a continuous process of participation and realisation on behalf of all sectors of Mexican society. More information on CONABIO's official web site: www.conabio.gob.mx

CONABIO. 2001. **OFFICIAL Web Site of the Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO). Mexico,** (available only in Spanish)

Theme: BCP, PA
Region: AM

This is the official web site of CONABIO (The National Commission for the Knowledge and Use of Biodiversity). Ample information found here includes: What is biodiversity?; Biodiversity of Mexico; brief description of National Biodiversity Strategy of Mexico; Relevant Ecological Regions of Mexico; Mammals and Birds of Mexico; description of the Corredor Biológico Mesoamericano; Institutional structure of CONABIO, and much more. www.conabio.gob.mx

Craik, Wendy. 1994. *The Economics of Managing Fisheries and Tourism in the Great Barrier Reef Marine Park* in **Protected Area Economics and Policy. Linking Conservation an Sustainable Development.** The World Bank and The World Conservation Union (IUCN). Washington, DC.

Theme: EC, ET, ST, BCP, PA
Region: OC

The Great Barrier Reef Marine Park is the largest protected marine area in the world. Fortunately a marine park was established in the Great Barrier Reef region before the recent expansion of tourism. It is estimated that in 1991 direct and indirect tourism and recreation

income and expenditures were probably in excess of $1 billion. This can be compared with commercial fishing estimates of approximately $400 million. The economic contribution of foreign tourists to the economy is greater per head than domestic tourists. While the Great Barrier Reef is the best-managed large marine ecosystem in the world, there is no room for complacency, since the future is sure to bring a variety of new challenges, requiring innovative planning for sustainable tourism.

Cultural Survival Quarterly. 1999. **Ecotourism, Sustainable Development and Cultural Survival.** A special issue in collaboration with The International Ecotourism Society. July 1999.

Theme: ET, EC
Region: AM, AF, AS, OC

The articles in this special issue are both a searing investigative report and moving testimony of the stresses and strains of finding the appropriate way for indigenous people to manage ecotourism. Case studies from Panama, Australia, Thailand, Nepal, Namibia, and the Amazon region explore and define creative tools to prevent exploitation. Examples include: developing guidelines as a tool to gain consensus among stakeholders, joint ventures between indigenous people and responsible entrepreneurs, and co-management of protected areas between government and indigenous people. Available from the International Ecotourism Society: http://www.ecotourism.org

DFID. 1999. **Changing the Nature of Tourism: Developing an Agenda for Action.** Environment Policy Department. Department for International Development. London, UK.

Theme: ET, EC
Region: W

This document, based on research carried out by the University of Kent in three very different nature tourism destinations (Keoladeo National Park in India, Komodo National Park in Indonesia, and the south-east Lowveld in Zimbabwe), provides an agenda for action by each of the sectors involved in nature conservation and sustainable development. It contains interesting discussions, as well as concise guidelines and recommendations. For more information, visit the DFID website: www.dfid.gov.uk/

Dowling, Ross and Jackie Adler. 1995. **Shark Bay, Western Australia: Managing a Coastal World Heritage Area.** Coastal Management in Tropical Asia: A Newsletter for Practitioners 6.

Theme: ST, ET, PA, BCP
Region: OC

This document describes a World Heritage strategic plan carried out in 1995 in Shark Bay, Western Australia. The plan coordinated several tourism strategies and several fisheries management strategies. In order to effectively manage future development and use, the Department of Conservation and the Ministry of Planning worked together to ensure that

their planning was complementary and there were no areas of conflict as regards use of land and coastal zones.

Drumm, Andy. 1998. *New Approaches Community-based Ecotourism Management* in **Ecotourism: A Guide for Planners and Managers, vol. 2, edited by Kreg Lindberg et al.** The International Ecotourism Society. North Bennington, Vermont, USA

Theme: ET, EC, PA, BCP
Region: AM

Three case studies of community-based ecotourism developments in the Amazonian region of Ecuador, which illustrate a range of models, are described: the Huaorani of Quehueri'ono, Capirona and RICANCIE, and the Cofán of Zabalo. Difficulties, constraints, opportunities, achievements and future trends are discussed.

Eagles, P.F.J. and Per Nilsen, eds. 1997**. Ecotourism Annotated Bibliography, 4th edition**.
The International Ecotourism Society. N. Bennington, Vt.

Theme: ET, EC, HE, PA, BCP
Region: W

Fully updated, this new edition offers a select group of nearly 400 citations. According to Eagles, "the literature has evolved from descriptive and personal to analytical and predictive". Categories included are ecotourism planning, visitor impact management, economic issues, community development, local participation, facility design, economics, conservation, education and development.

Earth Pledge Foundation Web Site

Theme: ST, ET
Region: AM

This is a NGO which practices and promotes the concept of sustainable development. Its web site contains (FOR FREE) some interesting online documents on sustainable tourism, especially in the Caribbean region. Web site: http://www.earthpledge.org/

Ecotourism Association of Australia.   1996. National Ecotourism Accreditation Program (NEAP).
EAA. Brisbane, Queensland, Australia.

Theme: ET, ST, HE, EC
Region: OC

This pamphlet briefly describes the National Ecotourism Accreditation Program (NEAP), which was launched by the Ecotourism Association of Australia in 1996, and is jointly run with the Australian Tour Operators Network. The NEAP arose out of the fundamental

problem of how to distinguish between genuine ecotourism operators and other operators who operate in natural areas. Accommodation and tour products are accredited according to eight basic sustainability principles which are briefly described. Depending on how many points operators achieve, they can either be awarded accreditation or advanced ecotourism accreditation. The Accreditation Program has been critical in helping ecotourism operators improve the profile of their products, which in turn has led to greater customer recognition and an emerging market edge. See the EAA web site: www.ecotourism.org.au/

Filion, Fern L. et al. 1994. *The Economics of Global Ecotourism* in **Protected Area Economics and Policy. Linking Conservation an Sustainable Development.** The World Bank and The World Conservation Union (IUCN).   Washington, DC.

Theme: EC, ET, PA, ST
Region: W

An interesting analysis of the economic significance of ecotourism around the world. It mentions that global tourism (domestic and international) is the largest and fastest growing industry in the world, accounting for 12 percent of the world gross national product and that, according to the preliminary analysis of the authors, economic impacts resulting from global ecotourism (domestic and international) might well range from about US$0.5 trillion to $1 trillion.

Gardner, Alison. 2000. **Travel Unlimited. Uncommon Adventures for the Mature Traveler.** Avalon Travel Publishing. Emeryville, California, US.

Theme: ET, ST, PA
Region: W

Information-packed guidebook featuring a worldwide menu of travel adventures selected with travelers over 50 in mind. This book contains details on ecological, educational, cultural, and volunteer vacations ranging from primitive to luxurious; reviews of tour operators, travel wholesalers, and clearing houses, charitable ventures, schools/colleges/universities, workshops, seminars, and volunteer service projects; inspirational tips, insights, and field reports from travel authorities around the world; and recommendations for both independent and group-minded adventure travelers, as well as for tourism planners, operators, and organizations. Contains chapters on: Opinions of alternative tourism leaders, active ecotourism vacations, cultural tourism. This book may be obtained from the author, e-mail: alison@travelwithachallenge.com. Website: www.travelwithachallenge.com.

German Federal Agency for Nature Conservation. 1997. **Conservation of Biological Diversity through Sustainable Development of Tourism.** Bundesamt für Naturschutz. Bonn, Germany.

Theme: BCP, ET, ST, PA
Region: W

This background material, which includes several important papers and articles, was compiled for the International Workshop held at Oberursel, Germany, in January 1997, which produced the Berlin Declaration on Conserving Biological Diversity Through Sustainable Development of Ecotourism, within the framework of the Convention on Biological Diversity. The document may be obtained from the Bundesamt für Naturschutz. Bonn, Germany (fax 0228 8491 200).

German Federal Agency for Nature Conservation. 1997. **Biodiversity and Tourism. Conflicts on the World's Seacoasts and Strategies for Their Solution.** Springer. Bonn, Germany.

Theme: BCP, ET, ST, PA
Region: W, E

Tourism is a way to use global biodiversity, and it may have impacts on it. As tourism activities concentrate on coastal areas the purpose of this study is twofold: first, to analyse where and to which extent conflicts exist, or may be expected to arise, between conservation of biological diversity and development of tourism; secondly, to work out approaches and concepts which may be used to avoid and settle such conflicts. The global level is considered first; a discussion of the European context and case studies from various regions follow. The last part of the study concerns international law aspects of sustainable tourism.

Gilpin, Alan. 1996. **Environmental Impact Assessment (EIA).** Cambridge University Press. Cambridge, UK.

Theme: BCP, HE, ST, PA
Region: W

This authoritative 182-page book examines the crucial role of EIA in government decision-making in Europe, North America, Asia and the Pacific. The author takes a critical approach to the subject, asking whether EIA really does improve the quality of life by being socially and environmentally responsible or is it merely bureaucratic game-playing. He looks at EIA in its political context and considers its role in the overall aims of sustainable development.

The Great Florida Birding Trail (GFBT). 2001. **Birdwatching in Florida**

Theme: ET
Region: AM

The Great Florida Birding Trail (GFBT) is a collection of sites throughout Florida selected for their excellent birdwatching or bird education opportunities. Description of a 2000-mile trail designed to conserve and enhance Florida's bird habitat by promoting birdwatching activities, environmental education and economic opportunity. Birders may download their

calling cards leaving them every time they eat at a restaurant, buy gas, or stay in a hotel while on a birding trip. http://www.floridabirdingtrail.com/

Gurría Di-Bella, Manuel. 2000. **El turismo rural sostenible como una oportunidad de desarrollo de las pequeñas comunidades de los países en desarrollo** (available only in Spanish).

Theme: ET, EC
Region: AM

El trabajo trata de destacar la importancia económica que tiene la actividad turística para las poblaciones receptoras por los beneficios que el hecho social puede producir a la vez que advierte los peligros que una actividad descontrolada presenta, por los aspectos negativos que pueden afectar a las comunidades. Available from: http://kiskeya-alternative.org/publica/diversos/rural-tur-gurria.html

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Hawkins, D.E., M.E. Wood, S. Bittman. 1995. **The Ecolodge Sourcebook for Planners and Developers.** The International Ecotourism Society. N. Bennington, Vt.

Theme: HE, ET, ST, PA
Region: W

This is the first well-rounded document on all aspects of ecolodge development, including site selection, finance, planning, design, alternative energy applications, conservation education guidelines, and a broad set of resources, including a variety of architectural plans for ecolodges. Case studies from around the world provide excellent examples of ecolodge projects set in different environments. Available from the International Ecotourism Society: http://www.ecotourism.org

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Hay, John E. 1992. **Ecotourism Business in the Pacific: Promoting a Sustainable Experience.** Environmental Science, University of Auckland, East-West Center Association. Auckland, New Zealand.

Theme: ET, ST, EC
Region: OC

These are the proceedings of the first-ever Ecotourism Conference to be held in New Zealand, and the southern Pacific, for that matter. Contains a series of interesting papers, mostly dealing with the pioneer developments of ecotourism in the Pacific, with special emphasis on the business aspects. A very interesting source book..

Helvetas.1998. **Elementos de debate acerca de TURISMO y ECOTURISMO. República Dominicana.** (available only in Spanish)

Libro publicado por el programa de conservación ambiental de Helvetas. Con la publicación de este documento el Programa de Conservación Ambiental intenta alimentar el debate sobre el desarrollo y potencial que posee el ecoturismo con el fin de lograr en la República Dominicana un concepto ampliamente aceptado por todos los actores que intervienen en esta actividad y orientar los esfuerzos hacia un turismo ambiental y socialmente viable. Disponible a partir de:
 http://kiskeya-alternative.org/publica

Higgins, Bryan R. n/d. **The Global Structure of the Nature Tourism Industry: Ecotourists, Tour Operators and Local Businesses**

Theme: ET, EC
Region: W

Nature tourism and ecotourism are rapidly growing components of the international tourism industry. Although substantial research literature is developing on this topic, few works have systematically examined the increasing number of nature tour operators or the global business structure of the nature tourism industry. In response, this article reviews the literature regarding the global dimensions of the nature tourism industry, outlines a more comprehensive framework for understanding the global business organization of this sector, and sketches a geography of nature tour operators based within the United States. Available FOR FREE on The International Ecotourism Society website: http://www.ecotourism.org/retiesselfr.html

Honey, Martha. 1999. **Ecotourism and Sustainable Development: Who Owns Paradise?** Island Press. Washington, DC.

Theme: ET, ST, EC
Region: AM, AF

A first-hand account of ecotourism around the world. Based on interviews and visits to ecotourist hotspots in Latin America and Africa, this book provides vivid descriptions and analysis of ecotourism and ecotourism projects as well as a compelling look at the promise and pitfalls of ecotourism. A good book for students of tourism and sustainable development, and a solid resource for scholars. Some portions of the book hastily researched and written. Available from the International Ecotourism Society: http://www.ecotourism.org

Hudson, Wendy E.(Editor). 1991. **Landscape Linkages and Biodiversity : Defenders of Wildlife.** Paperback (November 1991). Island Press; ISBN: 1559631090.

Theme: BCP, ST
Region: W

Studies links between landscape and biodiversity, and also refers to influence of tourism. Available from **www.amazon.com**

INBIO. 2001. **INBio Web Site.** Instituto Nacional de Biodiversidad. Costa Rica. (available in Spanish and in English).

Theme: BCP; EC, PA
Region: AM

The Instituto Nacional de Biodiversidad (INBio) is a Costa Rican scientific institution with social orientation. It is non-profit and was created for the public good. Its mission is to promote a new awareness of the value of biodiversity, and thereby achieve its conservation and use to improve the quality of life. The web site contains a wealth of information on Costa Rica's rich biodiversity and describes the functions of INBio.

http://www.inbio.ac.cr/en/default.html

ISO. 2000. **ISO 9000 and 14000**. International Organization for Standardisation. Geneva, Switzerland.

Theme: ST, BCP
Region: W

The International Organization for Standardisation (ISO), has recently set up a new international voluntary standard for environmental management systems (EMS) known as ISO 14001 (a part of the ISO 14000 core series). The ISO 9000 series embodies comprehensive quality management and quality assurance concepts and guidance, together with several models for external quality assurance requirements. ISO 9000 standards have proven to be a template for the creation of a sound quality system. The official ISO web site is: http://www.iso.ch/

Juda, Natacha and Sarah Richardson. 2001. **Preliminary Assessment Of The Environmental And Social Effects Of Liberalisation In Tourism Services. A WWF International Discussion Paper**.

Theme: ST, EC
Region: W

This study aims to identify and assess potential environmental and social effects of trade and trade liberalisation in the tourism sector. It identifies ways through which changes in the services sector, brought about by liberalisation, can be linked to sustainable development. For a copy of this paper contact: Mireille Perrin, Policy Adviser, Trade & Investment Unit, WWF International, Ave Mt Blanc, CH-1196 Gland, Switzerland; tel: (41-22) 364-9026; fax: 364-8219; email: mperrin@wwfint.org. The paper will also shortly be available on the WWF website at: http://www.panda.org

Khelladi, Yacine. 2000. **Elementos para un diagnostico del turismo alternativo en la República Dominicana** (available only in Spanish)

Theme: ST, ET
Region: AM

Descripción de elementos del diagnostico realizado sobre la situación, potenciales y problemas del turismo alternativo y "eco"turismo en República Dominicana, dentro del marco del proyecto Kiskeya Alternativa. Se obtiene a través de: http://kiskeya-alternative.org/publica/diversos/diagnostico-turismo-alternativo.html

Graefe, A.R., F.R. Kuss, and J.J. Vaske. 1990. **Visitor Impact Management (VIM).** The Planning Framework. National Parks and Conservation Association. Washington, DC.

Theme: ST, ET, BCP
Region: AM

This document describes a technique (VIM) designed for assessing and managing the environmental and experiential impacts of increasing numbers of visitors to natural areas. VIM recognises that recreational impacts on the environment and the quality of the recreational experience are complex and influenced by factors other than use levels. The eight steps that comprise the VIM process are amply described.

Hoyt, Erich. 2000. **Whale Watching 2000: Worldwide Tourism Numbers, Expenditures, and Expanding Socioeconomic Benefits.** International Fund for Animal Welfare. Crowborough, UK.

Theme: ST, ET, BCP, PA
Region: AM

A comprehensive updated report on whale watching which, as a commercial endeavour – with important educational, environmental, scientific and other socio-economic benefits – is now at least a US$1 billion industry involving more than 9 million people a year in 87 countries and territories (157pp.) Downloadable as a 635K Word file or a 183K zipped Word file from: http://www.ifaw.org/press/pr082200.html

Lawrence, Kathryn. 1994. *Sustainable Tourism Development* in **Protected Area Economics and Policy. Linking Conservation an Sustainable Development.** The World Bank and The World Conservation Union (IUCN).   Washington, DC.

Theme: ST, EC, PA
Region: W

This document looks at the development of the tourism industry from an economic, environmental, and social viewpoint, addressing the issue of sustainable tourism development and proposing a method of basing tourism development on acceptable levels of social and environmental change.

Lazaroff, Cat. 2000. **Whale Watching on the Web Resource Guide.**

Theme: ET, EC, BCP, PA
Region: W

This interesting article states that whale watching provides coastline countries around the world with more than US$1 billion every year, according to a new 175-page economic report published by the International Fund for Animal Welfare (IFAW). This study adds weight to arguments that whales are worth more alive than dead, and demonstrates that even in whaling countries, people spend money to watch living whales. Over 7.7 million people a year go whale watching in country members of the International Whaling Commission (IWC). See the article in:
http://www.planeta.com/ecotravel/resources/whales.html
[Comment; this is a journalistic article. Why not link to the URL to the full IFAW report?]

Lindberg, Kreg and Jeremy Enriquez. 1994. **An Analysis of Ecotourism's Economic Contribution to Conservation and Development in Belize. Vols. I and II**. WWF. New York City.

Theme: EC, ET
Region: AM

Provides a detailed examination of the tourism economy in Belize, how it presently contributes to conservation, and how that contribution could be significantly increased at local and national levels.

Lindberg, Kreg, Megan Epler Wood, David Engeldrum. 1993 & 1999. **Ecotourism: A Guide for Planners and Managers**, **Volumes 1 and 2.** The International Ecotourism Society, North Bennington, Vt

Theme: ET, EC, PA
Region: W

These two volumes have been used internationally as a resource for ecotourism professionals and as a text for university courses. It is a valuable guide providing in-depth how-to information with instructive case studies. Six years after the publication of the first volume, TIES has produced a timely and thoughtful follow-up. The text is a little dry, but engaging. Particularly interesting chapters are Megan Epler Wood's "New Directions in the Ecotourism Industry," Andy Drumm's "New Approaches to a Community-based Ecotourism Management," and Simon McArthur's "Introducing the Undercapitalised World of Interpretation." The two volume set may be the best introduction to the depth and breadth of this topic. Available from the International Ecotourism Society:
http://www.ecotourism.org.

Lindberg, K., B. Furze, M. Staff et al. 1997. **Ecotourism in the Asia-Pacific Region: Issues and Outlook. Asia Pacific Forestry Commission**. United Nations FAO, USDA Forest Service.
Theme: ET, EC
Region: AS, OC

An excellent introduction to ecotourism in the Asia-Pacific region which includes tourism statistics, country reports, and in-depth discussion of issues and options for future management. Available from the International Ecotourism Society: http://www.ecotourism.org.

McCool, Stephen F. 1994. **Linking Tourism, the Environment and Concepts of Sustainability: Setting the Stage**

Theme: ST, ET, BCP
Region: W

This paper argues that sustainability and the linkages to both social and natural environments provide new challenges for tourism researchers, and that research must now be more holistic, more encompassing and more sensitive to the needs for relevant policy. It outlines the new directions that researchers should focus on. Available FOR FREE on The International Ecotourism Society website:
http://www.ecotourism.org/retiesselfr.html

McLaren, Deborah. 1997. **Rethink Ecotourism and Ecotravel: The Paving of Paradise and What You Can Do to Stop It!** Kumarian Press.

Theme: ET, ST, BCP
Region: W

This book presents a comprehensive overview of the history and global development of the tourism industry and its environmental consequences. It is a critical and thought provoking book which explores the impact that tourism is having around the world. It analyses how tourism, if carried out in a sustainable way, can improve the lives of local people and the environment.

Mittermeier, Russell A. et al. 1997. **Megadiversity. Earth's Biologically Wealthiest Nations**. CEMEX/Conservation International. 502 pages. Mexico, DF.

Theme: BCP, PA
Region: W

An attractive, large-format book which is a real treasure house on aspects of megadiversity around the world. After an overall global analysis of biodiversity, the book deals in detail

with the 17 megadiversity countries in which the greatest part of biological diversity on planet earth is to be found. According to this work, the 17 megadiversity countries are: Brazil, Indonesia, Colombia, Australia, Mexico, Madagascar, Peru, China, Philippines, India, Ecuador, Venezuela, South Africa, Democratic Republic of Congo (DRC), Papua New Guinea, Malaysia, and the US. Some 500 photographs of flagship animal and plant species, of rare and unique forms, as well as the human cultures that have flourished in these megadiversity countries thanks to that natural wealth, are included in this book. Available from Conservation International: http://www.ecotour.org/ecotour.htm

National Park Service. 1993. **Guiding Principles of Sustainable Design**. U.S. Department of the Interior. Denver, Colorado, US

Theme: HE, ET, ST
Region: W, AM

A practical handbook, intended to provide a basis for achieving sustainability in facility planning and design, emphasise the importance of biodiversity, and encourage responsible development decisions in parks and other conservation areas, particularly where related to ecotourism. This merger of sustainable development and ecotourism provides great opportunities for affecting visitor perceptions of the natural and cultural world, and developing conservation-oriented values. It is a marriage that clearly distinguish sustainable development from traditional mass tourism development.

Nam Ng, Cho and Dr. Y. Li . 2001. **Eco-tourism in Hong Kong: its potentials and limitations**

Theme: ET, ST, BCP; HE
Region: W, AM

This paper discusses the eco-tourism potential of Hong Kong, and in particular, focuses on its advantages in terms of its biodiversity, infrastructure and associations with China mainland, and its limitations (physical and geographical). Available from: http://kiskeya-alternative.org/publica/diversos/hong-kong.htm

Norman, William, Eric Frauman, Lorin Toepper and Ercan Sirakaya. N/d. **Green Evaluation Program and Compliance of Nature Tour Operators**

Theme: ET
Region: W, AM

The final results of a two-year initiative led by TIES to determine if tour operators are meeting the standards published in its publication, **Ecotourism Guidelines for Nature Tour Operators (1993)**. This paper looks at consumer surveys as a method to determine if tour operators are following guidelines and includes the results of a one-year pilot study in the country of Ecuador. Available FOR FREE on The International Ecotourism Society website: http://www.ecotourism.org/retiesselfr.html

Office of National Tourism -(Australia) - Best Practice Ecotourism - Section 1.1

Theme: ET, ST, HE
Region: OC

Describes current industry practices in energy and waste minimisation. Ecotourism and nature-based tourism operators are genuinely concerned about the impact of their activities on Australia's natural and cultural environments. At the same time, there is a growing awareness that generating waste and consumerism is severely damaging the environment. This paper may be seen online for free at:
http://www.isr.gov.au/sport_tourism/publications/bpe/section1.html - size 13.841 bytes - 8/05/00 6:41:12

Office of National Tourism - (Australia) - From Projects to Networks - PLANNING DEVELOPING TOURISM BY POOLING COMMUNITY RESOURCES:Ecotourism research and planning through community empowerment. Graduate School of Environmental Science, Monash University

Theme: ET, EC
Region: OC

Describes developing tourism by pooling community resources, repositioning regional images, the great green way, a model for Victorian tourism. This paper may be seen online for free at:
http://www.isr.gov.au/sport_tourism/publications/pton/cbs_0797.html

Office of National Tourism - Best Practice Ecotourism - Marketing Energy & Waste Minimisation

Theme: ET, EC, HE
Region: OC

Highlights the environmental and other benefits of energy and waste minimisation strategies implemented by ecotourism operators. While most ecotourism operations emphasise their links with the natural environment in their marketing and promotion, there is not enough information on energy and waste minimisation. This paper may be seen online FOR FREE at:
http://www.isr.gov.au/sport_tourism/publications/bpe/marketingenergy.html - size 11.765 bytes - 8/05/00 6:41:03 GMT

Palmer, Michelle. 1990. **Signposts and gatekeepers: Tourist information and holiday experience in the Dominican Republic.**

Theme: ET, ST, PA

Region: AM

This paper argues that the pervasiveness of a wide variety of informational sources supplied by and through a wide range 'gatekeepers' effectively creates a whole range of signposts that impact on the ways in which this reflexivity allows engagement to take place with a destination. Available from:
http://kiskeya-alternative.org/publica/palmer/signs.html

Pam Wight & Associates. 1999. **Catalogue of Exemplary Practices in Adventure Travel and Ecotourism.** Canadian Tourism Commission: Ottawa.

Theme: ET, ST, PA, EC
Region: AM

This interesting document contains detailed descriptions of best practice examples in adventure travel and ecotourism in Canada. It is available in the following website:www.canadatourism.ca

Parks Canada. 2000. **Working Together: Parks and Protected Areas in Canada**. Federal Provincial Parks Council Report.

Theme: PA, BCP, EC, ST; ET
Region: AM

This document contains a wealth of information on Canada's national parks and protected areas, the biodiversity they contain, planning and conservation aspects, and ways in which Canadian society is collaborating in the management of conservation of this extremely rich resource. The whole document is available at:

http://parkscanada.pch.gc.ca/library/fppc/english/fppcreport_e.pdf

Paryski, Paul. n/d. **Can Haiti dream of ecotourism? (available in English and in French)**

Theme: ET, ST, PA
Region: AM

Despite centuries of degradation, Haiti still possesses abundant environmental attractions - but careful management is needed for ecotourism to really benefit the country. A paper by Paul Paryski, who
directed an environmental unit for the UN Development Program in Haiti and has played a key role in the establishment of Haiti's national parks. Available from:
http://kiskeya-alternative.org/publica/diversos/haiti-dream-ecotourism.html

Patterson, Carol. 1997. **The Business of Ecotourism - The Complete Guide for Nature and Culture-Based Tourism Operations.** Explorer's guide Publishing. Rhinelander, Wisconsin., USA.

Theme: ET, EC
Region: W, AM

A no-nonsense business handbook for the nature and culture-based tourism industries - Designed to help both big businesses and small start up, improve, and excel in their ecotourism ventures. As the author says, "If the heart of ecotourism rests in a love of nature, wildlife, and native cultures, then the brains of ecotourism must tend to the day-to-day business operations - the logical processes which can transform this love into a viable business without compromising principles." This book not only meets all the criteria of an exceptional business handbook, but addresses the special needs of ecotourism operators as well. The book covers a wide range of topics, from budgets and business plans to setting environmental policies and developing partnerships. It is thorough without sacrificing readability, concise without omitting crucial steps in the business process, and practical without being overly simplistic. Using a building blocks approach, author Carol Patterson helps you analyse your unique business, identify obstacles, and offers suggestions and solutions for a "win-win" strategy between business and nature. Author's website: http://www.desocom.com/egp_eco.html

Perlman, Dan L. And Edward O. Wilson. 2000. **Conserving Earth's Biodiversity.** Software edition (CD-ROM). Island Press. Amazon.com price: $35.95.

Theme: BCP, EC, PA, ST
Region: W, AM

This CD-ROM was developed by science educator Dan Perlman (Lincoln Institute of Land Policy, Cambridge, MA), based on the teachings and writings of renowned biologist Edward O. Wilson (emeritus, Harvard U.). Text presentation is augmented with video clips of E.O. Wilson, interactive exercises, maps, questions, case studies, colour photographs, and links to conservation websites. Unique new learning tool with renowned biologist E.O.Wilson. An entirely new way to study and teach conservation biology and environmental science. A pioneering educational tool. A groundbreaking and visually stunning program, this is a superb introduction to a field of critical importance presented by one of the most accomplished scientists of our time. E.O. Wilson introduces a wide variety of conservation topics, helping students understand the major aspects of conservation biology, including its biological, social, political, and economic elements, and describes what needs to be known and understood in order to effectively protect biodiversity. Conserving Earth's Biodiversity offers a learning experience that transcends what can be accomplished by a studying a textbook or listening to a lecture. Some references are made on tourism.   The CD ROM includes unique and engaging features that allow users to interact with the program and explore topics in-depth.

Perrings, Charles et al. 1997. **Biodiversity Loss: Economic and Ecological Issues.** Cambridge University Press. Cambridge, UK.

Theme: BCP, EC, ST
Region: W, E

This volume reports key findings from the Biodiversity Programme of the Royal Swedish Academy of Sciences' Beijer Institute. In encouraging collaborative interdisciplinary work between economics and ecology, it sought to shed new light on the concept of diversity; the

implications of biological diversity for the functioning of ecosystems; the driving forces behind biodiversity loss; and the options for promoting biodiversity conservation. Solutions lie in local rather than global incentive reform. The study includes some discussion on tourism issues linked to biodiversity conservation.

Pinto, Alicia. 2000. **Ecotourism Case Studies in the United States**. The International Ecotourism Society, North Bennington, Vt.

Theme: ET, EC
Region: AM

This is the first book containing an excellent collection of ecotourism projects in the United States. It contains in-depth case studies on U.S. ecotourism projects, and a series of appendices valuable to anyone interested in learning more about the state of ecotourism in the U.S. Five chapters relate to regional ecotourism planning, enhancement, product development, marketing and more. . Available from the International Ecotourism Society: http://www.ecotourism.org

Post, Jan C. 1994. *The Economic Feasibility and Ecological Sustainability of the Bonaire Marine Park, Dutch Antilles* in **Protected Area Economics and Policy. Linking Conservation an Sustainable Development.** The World Bank and The World Conservation Union (IUCN). Washington, DC.

Theme: EC, BCP, ET, PA
Region: AM

The Bonaire Marine Park provides a good example of an area where biodiversity conservation and economic development have been mutually reinforcing. The park seems thus far to be ecologically sustainable, and institutionally functioning well, while at the same time constituting the mainstay of the island's economy. Close monitoring of the health of the reef as a function of the number of divers is necessary to set eventual limits, whereas strict pollution control is essential.

Preece, N.,P. van Oosterzee and D. James. 1995. **Two Way Track. Biodiversity Conservation and Ecotourism: an investigation of linkages, mutual benefits and future opportunities.** Department of the Environment, Sport and Territories. Canberra, Australia.

Theme: BCP, ET,
Region: OC

This 88-page report describes interaction between biodiversity conservation and planning, stating that the health of Australia's biodiversity will be a major factor in the expansion of the tourism industry. Much of Australia's $26 billion a year (in 1995) tourism industry is based on aspects of the natural environment. The document discusses policies, strategies and agreements on biodiversity, protection of natural areas, markets for nature-based

tourism and ecotourism, and roles of industry and government. You can read the complete text at:
http://chm.environment.gov.au/publications/biodivers5/index.html

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Prince, Nelson Sherre. 2000. **The inter-relationship between nature based tourism in a community and nearby lodges in the Brazilian Amazon**

Theme: ET, HE
Region: AM

Evaluation of the inter-relations between a riverine community and local jungle lodges used for ecotourism in the Brazilian Amazon. Available from:
http://kiskeya-alternative.org/publica/diversos/amazon.html

Reaka-Kudla, Marjorie L.(Editor), Don E. Wilson (Editor) Edward Osborne Wilson (Editor). 1997. **Biodiversity II : Understanding and Protecting Our Biological Resources.** National Academy Press; ISBN: 0309055849. Paperback - 560 pages. Price amazon.com $23.96.

Theme: BCP, PA, ST
Region: W

A 10-year update and report on the concerns expressed at a 1986 forum and published in the best-selling by National Academy Press in 1988. Addresses the research and technological innovations in biodiversity studies, recent scientific findings, and trends in environmental conditions and responses to them. Accessible to non-scientists. In "Biodiversity", Edward O. Wilson warned of the dangers of altering and destroying our environment. "Biodiversity II" explores new strategies for quantifying, understanding, and protecting biodiversity. It also explores ecosystem restoration, sustainable development, and agricultural impact and reinforces the idea that conservation of our biological resources is within reach. Some references to tourism. This is a book that every environmental economist should have in collection. It covers a wide range of issues from the many aspects of biodiversity to its assessment and conservation. Its content is systematic and somewhat technical, and yet accessible for non-biologists. An appropriate aid for research, with useful case studies.

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Potts, Thomas D. 1996. **Making Nature Your Business. A Guide for Starting a Nature Tourism Business in the Lone Star State.** Texas Parks & Wildlife Department. Austin, Texas, USA.

Theme: ET, EC
Region: AM

A practical booklet for persons who want to start a nature tourism business, since it is recognised that they need a pathway that is clearly defined, or they could lose valuable time, investment capital and natural resources. It describes several initiatives that the State of Texas is putting forward, including the Great Texas coastal Birding Trail. The document

stresses that tourism should contribute positively to local communities and resources and that businesses should adopt or reaffirm an environmental stewardship ethic for the business. It provides eight steps toward starting a nature tourism business.

Roe, Dilys, Nigel Leader-Williams and Barry Dalal-Clayton. n/d. **Take Only Photographs, Leave Only Footprints: The Environmental Impacts of Wildlife Tourism**

Theme: ET, BCP
Region: W

This paper sets wildlife tourism in its global perspective and reviews a broad range of different wildlife tourism initiatives and their associated environmental impacts. The study indicates clearly that it is not possible to make generalisations concerning the environmental effects associated with wildlife tourism. Only a few case studies have been identified that actually document the environmental impacts of wildlife tourism. It is clear that development agencies need to consider proposals for wildlife tourism developments on a case-by-case basis in order to determine the environmental impacts that are likely to arise, and that further research is required in order to develop effective policies and plans for wildlife tourism. Available FOR FREE on The International Ecotourism Society website: http://www.ecotourism.org/retiesselfr.html

SBSTTA. 2000. **Development Of Approaches And Practices For The Sustainable Use Of Biological Resources, Including Tourism.** UNEP/CBD/SBSTTA/4/11 17 February 1999

Theme: BCP, ST, ET
Region: W

This is the complete text of Item 4.8 of the Provisional Agenda of the fourth Meeting of SBSTTA, held in Montreal, Canada, 21-25 June 1999. Contains very valuable information on the role of tourism in the sustainable use of biological resources. The sustainable use of the components of biological diversity is one of the three objectives of the Convention on Biological Diversity.   For the purposes of the Convention, "sustainable use" means the use of components of biological diversity in a way and at a rate that does not lead to the long term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations" (Article 2). This definition of sustainable use is consistent with the concept of sustainable development as elaborated in the Rio Principles and Agenda 21, whereby "sustainable development" meets the needs and aspirations of the current generations without compromising the ability to meet those of future generations. Sustainable development cannot be achieved without the sustainable use of the world's biological resources. The concept of sustainable use is grounded in Article 10 on sustainable use of components of biological diversity and Article 6 on general measures for conservation and sustainable use of the Convention on Biodiversity.

SBSTTA. 2001. **Sustainable Tourism. UNEP/CBD/SBSTTA**

Theme: BCP, ST, ET

Region: W

This web site contains a description of CBD activities related to sustainable tourism, case studies, and other related links on the CBD web site. Contains Annex II of Decision IV/16 of SBSTTA and paragraph of Decision IV/15.

http://www.biodiv.org/chm/sustour/ index.html

Schubert, Andreas and Renato Pérez. n/d**. "Hacia el Techo del Caribe - Caminatas al Pico Duarte** (available only in Spanish)

Theme: ET
Region: AM

Toda la información posible para llegar al Pico Duarte (República Dominicana): cuando realizar las caminatas, por donde subir, cómo llegar a los puntos de partida, sobre los guías prácticos, el alquiler de los mulos, combinación de senderos, cosas que se deben llevar, las reglas más importantes que regulan la conservación del patrimonio natural que es el Pico Duarte y su entorno A todo lo largo del trabajo existen ilustraciones de imágenes escénicas y de personajes, plasmadas con maestría tal, que mueven las fibras menos sensitivas a realizar esa aventura inolvidable que es subir al Pico Duarte. Disponible a partir de: http://kiskeya-alternative.org/publica

SECTUR 2000. **Política y Estrategia Nacional para el Desarrollo Turístico Sustentable**. Secretaría de Turismo (SECTUR). México, DF. (available only in Spanish)

Theme: ST, ET, EC, PA, BCP
Region: AM

This official document describes the National Policy and Strategy of Sustainable Tourism development, which was developed jointly by SECTUR, SEMARNAP (Ministry of the Environment) and CONABIO. There are sections on management guidelines, training, education, certification, social participation, recuperation and preservation, promotion, financing, and intersectoral participation.

SECTUR 2000. **Guía Oficial de Destinos para el Turismo de Aventura, Ecoturismo y Turismo Rural en México.** Secretaría de Turismo (SECTUR). México, DF. (available only in Spanish)

Theme: ST, ET, PA
Region: AM

This official guide produced by SECTUR describes a number of adventure travel, ecotourism, and rural tourism destinations in Mexico. Good information on main attractions, access, lodging, restaurants and local tourism services. However, information on the biodiversity resources of each destination is scanty and superficial.

SECTUR. 2000. **Catálogo Mexicano de Casos Exitosos en Turismo Sustentable.**
Secretaría de Turismo (SECTUR). México, DF. (available only in Spanish)

Theme: ST, ET, PA
Region: AM

This official document describes what are deemed successful examples of sustainable
tourism cases in Mexico: programmes, projects and specific destinations. Each case
includes a description of organisations involved, objectives and strategies, problems and
solutions, sustainability, funding, results, lessons learned, and follow-up activities.
Geographical coverage is partial, including only 9 of Mexico's 32 states.

SECTUR. 2001. SECTUR **Official website. Secretaría de Turismo (SECTUR) Mexico**
(available in English and in Spanish).

Theme: ST, ET, PA
Region: AM

This official website of the Mexican Ministry of Tourism describes the main tourism
attractions of Mexico, with valuable information on lodging, restaurants and main tourism
tourism destinations, especially beaches, archaeological sites and colonial cities. There is a
section on ecotourism, but information contained is superficial, and there is little mention
of details of the biodiversity richness of Mexico and the need to conserve this heritage.
http://mexico-travel.com/mexico/owa/sectur.inicio

Serulle Ramia José. 1999. **Ecoturismo Y Desarrollo Sostenible En Republica
Dominicana , El Caribe Y El Mundo.** Ediciones Fundación Ciencia y Arte (available
only in Spanish)

Theme: ET, ST
Region: AM

En este libro penetramos y viajamos por el hermoso "ecomundo" de la fauna y la flora, de
los sistemas costero-marinos, de los paisajes diversos y espacios naturales en la vida de las
comunidades y de los pueblos, con sus riquezas folklóricas, sus ritos, su espiritualidad y su
inmensa hospitalidad, o sea su identidad cultural y grandeza humana. Esta lectura nos
llevará, pues, a ser más compromisarios, en las palabras y en los hechos, en la defensa de
nuestro planeta, es decir, en la búsqueda constante del desarrollo sostenible. Disponible a
partir de:
http://kiskeya-alternative.org/publica

SINAC/INBIO. 2001. **Estrategia Nacional de Conservación y Uso Sostenible de la
Biodiversidad.** Costa Rica.

Theme: BCP, EC, PA

Region: AM

This web site provides good information on the National Biodiversity Strategy of Costa Rica, and also background information on CBD. There is a good description of the great variety of ecosystems in that country, and also a section on legal and institutional aspects of biodiversity conservation and planning.
http://www.minae.go.cr/estrategia/estudio/indice.html

Sproule, Keith W. n/d. **Community-Based Ecotourism development: Identifying Partners in the Process**

Theme: ET, EC
Region: W

The focus of this paper is on achieving conservation and development objectives through development of Community-Based Ecotourism (CBE) enterprises. The premise of the paper is that successful CBE initiatives are supported by partnerships between communities and government, non-government and private sectors. To this end, an overview of which of those partners can support which type of initiatives is discussed. Finally, a few thoughts are provided about CBE initiatives in the context of a national tourism market and what might be included in a National CBE Development Strategy. Available FOR FREE on The International Ecotourism Society website: http://www.ecotourism.org/retiesselfr.html

Stankey, G.H. et al. 1985**. The Limits of Acceptable Change (LAC) System for Wilderness Planning. Forest Service.** U.S. Department of Agriculture. Ogden, Utah, USA.

Theme: BCP, ST, ET
Region: AM

This document describes in detail the characteristics of the LAC technique, which concentrates on establishing measurable limits to human-induced changes in the natural and social setting of parks and protected areas, and on identifying appropriate management strategies to maintain and/ore restore desired conditions. The LAC framework is based on resource management by objective.

Stonich, Susan. 2000. **The Other Side of Paradise.** New York Cognizant Communication.

Theme: ET, BCP, EC
Region: AM

This sound academic analysis reviews tourism, conservation and development in the Bay Islands (Central American Caribbean region). The author has focused on tourism and development for many years and this volume is a well-written synthesis of her findings. She explores the historical legacy of the Bay Islands and the expansion of the international tourism market. All is not well in Paradise as she documents the negative impacts on the communities and the local ecosystems. Maps, black and white photos and illustrations

complement the text.
Book Page: http://www.cognizantcommunication.com/filecabinet/osp.htm#osphome

Sweeting, James, Aaron Bruner and Amy Rosenfeld. 1999. **The Green Host Effect: An Integrated Approach to Tourism and Resort Development.** Conservation International. Washington, DC.

Theme: HE, ST
Region: W, AM

This publication offers recommendations for responsible tourism and resort development, to both minimise the industry's negative environmental and social impacts, and increase the overall positive contribution of tourism to conservation and local well-being. The conclusions and recommendations are sound, though they could be more specific. The only serious omissions are examples from CI's own body of work in ecotourism planning and development. Available from Conservation International:
http://www.ecotour.org/ecotour.ht m; Email: j.sweeting@conservation.org

The International Ecotourism Society. 1993**. Ecotourism Guidelines for Nature Tour Operators** . TIES. N. Bennington, Vt.

Theme: ET
Region: W, AM

This original English version of the guidelines is possibly the most widely distributed ecotourism guidelines in the world. Still a must for all ecotourism professionals. Provides the most up-to-date standards for the operation of tours in fragile natural areas. Includes guidelines for pre-departure programs, general principles of guiding tours, prevention of environmental and cultural impacts, monitoring programs, training, conservation contribution programs, local employment and jobs programs. Available from the International Ecotourism Society:
 http://www.ecotourism.org

The International Ecotourism Society. 1993. **Directrices para el Ecoturismo: Una Guía para los Operadopres de Turismo Naturalista.** TIES. N. Bennington, Vt.

Theme: ET
Region: W, AM

Spanish version of **Ecotourism Guidelines for Nature Tour Operators.** Available from the International Ecotourism Society:
http://www.ecotourism.org

The International Ecotourism Society. **Select Ecotourism Research Papers.**

Theme: ET, ST, HE, EC
Region: W

Online papers that appear on this web page were selected by TIES staff as examples of research excellence. They present cutting-edge research techniques and results. Check here FOR FREE every six months for a new list of the top published and unpublished research papers from around the world:
http://www.ecotourism.org/retiesselfr.html
If you would like to submit a paper, send it to: The International Ecotourism Society. Email: ecomail@ecotourism.org

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The International Ecotourism Society. 2000. **The Business of Nature Lodges**. The International Ecotourism Society, North Bennington, Vermont, USA

Theme: HE, ET, EC
Region: W

This publication outlines the findings from a survey of 120 nature-based lodges, addressing for the first time applied research on the business of ecotourism. The survey was designed to create a financial overview of international ecolodges and nature tourism accommodations worldwide. Factors analyzed include: occupancy rates, return on investment, replacement cost, methods of project finance, profit/loss, obstacles to profitability, and market considerations. Available from the International Ecotourism Society: http://www.ecotourism.org

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The International Ecotourism Society. (announced for late 2001). **International Ecolodge Guidelines.** Burlington, Vermont, USA

Theme: HE, ET, EC
Region: W

This publication, announced to appear in late 2001, will provide detailed guidelines on all aspects of ecolodge development, including site selection, planning and design; minimising bio-physical impacts; architectural design; minimising socio-economic and cultural impacts; legal and financial factors; operation and management; marketing and promotion; education, training, extension and interpretation; monitoring and evaluation. It will be available from the International Ecotourism Society: http://www.ecotourism.org

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Trousdale, William J. n/d. **Appropriate Tourism Impact Assessment: A Case Study of Kankiki Point Resort, Plawan, Philippines.**

Theme: ET, ST
Region: AS

This case study is intended to alert the reader to opportunities and constraints of managing tourism's impacts in a developing world setting and provide an effective approach for conducting an Appropriate Tourism Impact Assessment. Available FOR FREE on The International Ecotourism Society website: http://www.ecotourism.org/retiesselfr.html http://www.ecotourism.org/textfiles/etspaper.txt

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Twynam, David, Margaret Johnston and Bob Payne. n/d. **Ecotourism and sustainable tourism guidelines: An annotated bibliography.** Lakehead University, Thunder Bay, Ontario, Canada.

Theme: ET, ST
Region: AM

This annotated bibliography contains information about published literature and other sources with relevance to the Caribbean ecotourism and sustainable tourism guidelines. The general theme of the bibliography is the management of tourism through sustainable tourism frameworks. Available FOR FREE on The International Ecotourism Society website:
http://www.ecotourism.org/retiesselfr.html

UNEP. 2001. **Principles for Implementation of Sustainable Tourism**. UNEP Division of Technology, Industry and Economics (DTIE). Production and Consumption Unit. Tourism Programme. Paris, France.

Theme: ST, HE, EC
Region: W

The Tourism Programme of UNEP's DTIE produced this document for UNEP's 21st Governing Council Meeting. UNEP surveyed a considerable number of the main guidelines that are already available worldwide, and consolidated and summarised these into a single set of principles, in a general and concise way. These principles, which hopefully will be widely applied, are grouped into four main themes: Integration of Tourism into Overall Policy for Sustainable Development, Development of Sustainable Tourism, Management of Tourism, Conditions for Success.
To read a summary of the document, see: www.uneptie.org/tourism/home.html

UNEP/IHRA. 1995. **Environmental Action Pack for Hotels: Practical Steps to Benefit your Business and the Environment.** The International Hotel Association. UNEP Industry and Environment Technical Report N° 31.

Theme: HE, ST, EC
Region: W

A practical handbook to help hotels set up their own individually tailored environmental programme and form part of a wider regional and world wide network to share experiences and take joint action as necessary. Environmental management of hotels not only provides worthwhile results in environmental terms but also in terms of real business benefits, such as reduced costs and liabilities, greater service quality and customer satisfaction and improved corporate image. The document contains sections on "green health check", action checklists, operating your business environmentally, energy, solid waste, water, effluents and emissions, contractors and suppliers, and business issues. . This document may be obtained from UNEP-Industry and Environment in Paris:
http://www.uneptie.org/tourism/

UNEP/IHRA. 1996. **Environmental Good Practice in Hotels. Case Studies from the IHRA Environmental Award.** International Hotel & Restaurant Association. UNEP-Industry and Environment. Paris, France.

Theme: HE, ST
Region: W

This publication presents 15 case studies selected from applications to the IH&RA Environmental Award 1992-1995, which were judged in 1995 by UNEP-Industry and Environment. The case studies selected are drawn from around the world, from small independent hotels and large international chains. They reveal a diversity of approaches to environmental management, based on criteria such as: the environmental properties of each region; the cost of water, energy, waste disposal and other resources; the location and size of the property; the availability of technology; the level of green consumerism. This document may be obtained from UNEP-Industry and Environment in Paris: http://www.uneptie.org/tourism/goodprac.html

UNEP/WTO/FEE. 1996. **Awards for Improving the Coastal Environment. The Example of the Blue Flag.** UNEP-Industry and Environment. Paris, France.

Theme: ST, BCP
Region: E

This document describes one way in which tourism is being integrated with the coastal environment: the European Blue Flag campaign, launched in 1985, which is an award system in which European beaches that fulfil a number of exacting criteria in relation to factors such as the quality of bathing water, cleanliness and safety are given the right to fly the Blue Flag. In 1995, 1463 European beaches were awarded Blue Flags. Since more than half of the world's population lives within 60 km of a coastline, the world's coastal areas are exposed to rapid urban growth, increasing population pressure, pressures from major industries, particularly tourism, and extensive exploitation of marine resources. This publication may be obtained from UNEP-Industry and Environment in Paris: fax 33 1 44 37 1474, e-mail: unepie@unep.fr

Universidad Autónoma de Santo Domingo. N/d. **Maestría En Ecoturismo de la Universidad Autónoma de Santo Domingo**. (available only in Spanish)

Descripción de la Maestría En Ecoturismo de la Universidad Autónoma de Santo Domingo. Disponible a través de: http://www.kiskeya-alternative.org/publica/diversos/maestria-uasd.html

Valdez M., Raúl. 1999**. Design of urban tourist routes for Puebla City (Mexico), a cluster analysis application.**

Theme: ST, HE

Region: AM

This paper describes an investigation whose objective are (1) To know the global image that Puebla City (in central Mexico) offers to visitors. (2) To determine the experiences lived by the tourist visiting Puebla City. (3) To identify the main tourism attractions, in order to design the more
accurate urban tourism routes of Puebla City. Available from:

http://kiskeya-alternative.org/publica/diversos/puebla-valdez.html

Wallace, George N. n/d. **Toward a Principled Evaluation of Ecotourism Ventures**

Theme: ET, PA
Region: AM

This paper discusses a systematic approach to evaluating ecotourism operations in a given locale. It employs a set of six principles as the basis for evaluation. Indicators and standards are site-specific and agreed upon by managers and stakeholders. When possible, tour operators, protected area managers (public and private), visitors and local people participate in the evaluation. The paper gives its definition of ecotourism, discusses how the principles and valuative methods were derived, and describes the evolution of the methodology by looking at ecotour operations in both the Brazilian and Ecuadorian portions of the Amazon Basin. Suggestions are then offered for improving the approach. Available FOR FREE on The International Ecotourism Society website: http://www.ecotourism.org/retiesselfr.html

Wells, Michael P. 1994. *Parks Tourism in Nepal: Reconciling the Social and Economic Opportunities with the Ecological and Cultural Threats* in **Protected Area Economics and Policy. Linking Conservation an Sustainable Development.** The World Bank and The World Conservation Union (IUCN).   Washington, DC.

Theme: ET, PA, EC
Region: AS

An interesting analysis that concludes that economic benefits from protected area tourism in Nepal was not providing (in the early 90s) an adequate incentive for effective park management. Only a very small proportion of the total economic value of protected area tourism has been realized inside Nepal, despite the obvious economic importance of tourism to the country. Many of the problems facing the country's protected areas arise from significant imbalances between economic cost and benefits at local levels – in communities close to park boundaries.

Wesche, Rolf and Andy Drumm. 1999. **Defending our Rainforest: A Guide to Community-based Ecotourism in the Ecuadorian Amazon** Acción Amazonia.

Theme: ET, PA
Region: AM

This compact, practical guide book includes maps and colour photos, together with information on each of over 40 community ecotourism projects in some of the Amazon's most spectacular areas. It also contains chapters on the characteristics of community-based ecotourism, the cultural and environmental context, the role of the responsible traveller and tips for travellers. Available from the International Ecotourism Society: http://www.ecotourism.org

Wight, Pam. n/d. **Catalogue of Exemplary Practices in Adventure Travel and Ecotourism** . Pam Wight & Associates for the Canadian Tourist Commission.

Theme: ET, EC
Region: AM

The principle purpose of this text is to document exemplary practices among ecotourism and adventure travel operators, which will enable sharing a range of successful practices within the industry and among various players: operators, key stakeholders and the tourism industry. This Catalogue of Exemplary Practices is intended as a tool to enable operators to review the applicability of a wide range of successful, practical approaches to their own operations. Available FOR FREE on The International Ecotourism Society website: http://www.ecotourism.org/retiesselfr.html

Wood, Megan Epler. 1998. **Meeting the Global Challenge of Community Participation in Ecotourism: Case Studies and Lessons from Ecuador.** Nature Conservancy America Verde Publications. Washington, DC 1998).

Theme: ET, EC
Region: AM

This report offers a series of targeted recommendations for the development of community ecotourism programs including questions of training, optimal business structures, linkages to the global marketplace, the need for market data, and facing the problem of conflicting land-use strategies. This working paper successfully provides examples from Ecuador that showcase the need for community involvement. Recognition must go to The Nature Conservancy for publishing a work that it is, in fact, fairly critical about a TNC project (Playa de Oro). The entire report traces the development of ecotourism in Ecuador and provides a list of recommendations. Available from America Verde Publications. Email: americaverde@tnc.org

World Tourism Organization. 2000. **Sustainable Development of Tourism – A Compilation of Good Practices.**

Theme: ST, ET, EC, HE, PA
Region: W

The progress towards a more sustainable tourism industry is best demonstrated through success stories. This publication contains around 50 examples of good practices in sustainable development and management of tourism, collected from 31 countries. A great variety of projects are presented, ranging from local to regional and national levels,

including activities of the public, private and NGO sectors, covering aspects of eco-, rural- and cultural tourism, accommodations, tour operations, transportation, protected area management, regulatory and voluntary frameworks, among others. Each case is described in a systematic order, including detailed background information, success factors for sustainability, problems aroused and their solutions, lessons learnt, and monitoring activities. This publication will be of great value to tourism officials, managers, researchers, and anyone interested in the tourism industry. Advertised in WTO web site: **www.world-tourism.org**

WWF. 2001. **Convention on Biological Diversity. COP.5 Nairobi, Kenya**

Theme: BCP
Region: W

The Fifth Conference of the Parties to the Convention on Biological Diversity (CBD COP.5) provides yet another opportunity, and challenge, for the international community to make important policy decisions that will affect the future of the world's remaining biodiversity. This overview paper highlights WWF's main policy recommendations contained in the above mentioned papers. We invite the COP.5 and individual Parties, NGOs and other organisations to adopt and implement these recommendations. The detailed policy papers can be accessed from WWF's website: www.panda.org/resources/publications/sustainability/

WWF. 2000. **Convention on Biological Diversity. WWF plays a catalytic role in implementing**

Theme: BCP
Region: W

A recently completed independent evaluation of a 4.1 million SFs project to implement the Convention on Biological Diversity shows that WWF has been highly successful in translating many issues of the Convention into action in nine countries. See in WWF's website: http://www.panda.org/resources/publications/sustainability/cbd/

WWF. 2000*. Discussion Papers for the SBSTTA.5 Meeting of the Convention on Biological Diversity, January 2000*

Theme: BCP
Region: W

You may download the whole SBSTTA document. The 'Index.doc' contains the index of papers, which include: Overview paper, WWF background papers, and WWF Discussion Papers/Case Studies. See WWF Website:

http://www.panda.org/resources/publications/sustainability/sbstta/

WWF. 2001. **Tourism Web Site**

Theme: ET, ST, BCP, EC, PA
Region: W

This is WWF's web site on tourism. WWF's mission is to conserve nature and ecological processes, to seek the sustainable use of natural resources, and to promote the reduction of pollution and wasteful consumption whilst recognizing and respecting human needs and livelihoods. Our aim is to slow down, and eventually reverse, the accelerating degradation of our planet's natural environment; and to help build the future in which people live in harmony with nature. WWF Position statement on Tourism: 5 pages you can download.
http://www.panda.org/resources/publications/sustainability/tourism/

Ziffer, Karen. 1989. **Ecotourism: The Uneasy Alliance. Conservation International**. Washington, DC.

Theme: ET, EC
Region: W

A thorough investigation into the market for ecotourism, detailing the structure of the nature tourism industry and its potential for success as a local economic development tool.

World Tourism and Travel Council (WTTC). 1999. WTTC Key Statistics 1999.

Theme: ST, EC
Region: W

WTTC is a worldwide NGO organization dealing with the promotion of sustainable tourism. Its web site contains many interesting items, such as the following statistics:

In 1999, Travel & Tourism generated directly and indirectly, across the global economy : 11% of GDP; 200 million jobs; 8% of total employment; and 5.5 million new jobs per year until 2010. This latest report from WTTC/WEFA summarises global and regional Travel & Tourism estimates for 1999. It has been adapted to reflect concepts developed within the World Tourism Organization and shows :

- the Travel & Tourism Economy - the direct and indirect effects of travel demand; and

- the narrower Travel & Tourism Industry - direct effects only.

World Travel & Tourism has largely weathered the Asia/Pacific financial crisis, thanks to the economic strength of the North American and European Union regions. In 1999, Travel & Tourism is expected to generate some $3.5 trillion of GDP and almost 200 million jobs across the world economy - approximately one third of this comes from the industry itself and the remainder from its very strong catalytic *flow-through effect* in other sectors such as retail and construction. See their web site: www.wttc.org

Research-Oriented Web Sites

- **www.world-tourism.org**

  At the World Tourism Organization, you can check out the most recent tourism statistics worldwide.

- **www.wttc.org**

  Visit ECoNETT at the World Travel & Tourism Council web site. ECoNETT is an "information network for Travel & Tourism and the Environment."

? **www.uneptie.org/tourism**

  At the website of the UNEP Division of Technology, Industry and Economics (DTIE), you will find updated information on a number of documents on sustainable tourism, as well as the activities of the Tourism Programme of the DTIE.

- **www.ecotourism.org**

  At the website of The International Ecotourism Society (TIES), you will find extensive information on al subjects of ecotourism, including a number of technical research papers which may be consulted FOR FREE at theTIES website: http://www.ecotourism.org/retiesselfr.htm

? **www.lorenzmur.csu.edu.au/ecotour/pages/EcoTrHme.html**
Visit the Ecotourism Information Centre, developed by the Johnston Centre of Parks, Recreation and Heritage at Charles Sturt University, in collaboration with the Ecotourism Association of Australia.

- **www.green-travel.com**
At Infotec's Green-Travel Home Page, you will find Green-Travel's Directory of Organizations, World Ecotourism Directory and many other useful resources.

- **www.bigvolcano.com.au/ercentre/ercpage.htm**
Big Volcano Tourism Marketing & Media's Ecotourism Resource Centre offers an excellent collection of ecotourism and sustainable tourism research papers, web site links, codes of practice and a bookstore. Lots of information on Australia can be found here.

- **www2.planeta.com/mader**
At Ron Mader's Planeta site you can read the most recent issue of *El Planeta Platica: Ecotravels in Latin America* newsletter and discover many other resources related to travel in Latin America and the Caribbean.

- **www.amazon.com**

  The biggest online book store in the world. Staggering! By searching the subject "ecotourism" on January 8, 2001, 110 book titles were found.

- **www.tourismconcern.org.uk**
  Tourism Concern's homepage provides valuable information on sustainable tourism practices, and updates on the impacts of tourism worldwide.

- **www.ecosourcenetwork.com**
  The Eco-Source Ecotourism Information website is another great source of general information.

- **http://www.ecotour.org/ecotour.htm**

  The Ecotravel Center is Conservation International's home-page dedicated to providing information for the ecotourist.

- **www. yorku.ca/research/dkproj/string/rohr**

  The Sustainable Tourism Research Interest Group website includes a directory of internet resources including multilateral organizations, codes of ethics and practice, and NGO's.

- **http://kiskeya-alternative.org/publica**
  This web site contains much interesting information on ecotourism and sustainable tourism developments, mainly in the Dominican Republic and Haiti, but also in other parts of Latin America and around the world. It includes information on recent publications.

- **http://www.kiskeya-alternative.org/cangonet#sing**

  Since 1996 Cangonet is an electronic forum devoted to discussions and reference exchange on Caribbean ecotourism issues (including sustainable, alternative, cultural, rural, agricultural tourism). Now you can search list archives in English, Spanish and French.This project is launched for developing Information Technologies applications and uses to help sustainable tourism destinations develop and impact positively, as much as possible, on social, economical, cultural and environmental aspects in both Dominican Republic and Haiti.

  HCL
  June 2001