Biodiversity Planning Support Programme

B P S P



Guide to Best Practices for Sectoral Integration:

INTEGRATING BIODIVERSITY INTO THE TOURISM SECTOR

Global Environment Facility

UNEP

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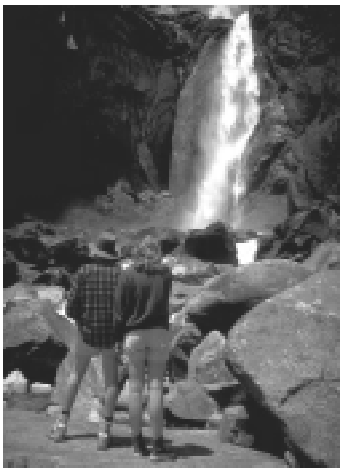


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The UNDP/UNEP/GEF Biodiversity Planning Support Programme (BPSP) had a mandate to provide assistance to national biodiversity planners as they develop and implement their national biodiversity strategies and action plans, or equivalent plans, programmes and policies. 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). Article 6(b) of the CBD states:

Each Contracting Party shall, in accordance with its particular conditions and capabilities:
(b) Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.

Exactly how this integration is to be achieved has not been described clearly by the Convention, subsequent Decisions of the Conference of Parties (COP), or by other specialist bodies. The BPSP was therefore established to respond to needs recognized by the Parties to the CBD for strengthening national capacity to prepare and implement National Biodiversity Strategies and Action Plans (NBSAP) in compliance with Article 6 of the Convention.

The present document is one of eight thematic studies designed to provide guidance to biodiversity planners to mainstream biodiversity into sectoral and economic policy development and planning.

Acknowledgements

The initial draft of this report was prepared by Arq. H. Ceballos-Lascurain as part of a contract from United Nations Environment Programme (UNEP). The preparation of the initial draft benefited from inputs from all participants at a thematic workshop held in Mexico City in March 2001, notably Stephen Edwards, manager of the Ecotourism Development Program of Conservation International; Elizabeth Halpenny, of Nature Tourism Solutions; Lynnaire Sheridan, then the Information Specialist of The International Ecotourism Society; Oliver Hillel, Tourism Programme Coordinator of the UNEP Division of Technology, Industry and Economics (DTIE); Pam Wight of Pam Wight & Associates; Eden Shand, Protected Areas Consultant; and Jeff Violi, Ecotourism Consultant. Revision of the initial draft was undertaken by David Duthie, the UNEP Programme Coordinator of BPSP, in consultation with Stephen Edwards; Elizabeth Halpenny; Lynnaire Sheridan; Pam Wight, and Anna Spenceley (Institute of Natural Resources, Scottsville, South Africa).

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1. Introduction

This report focuses on how to incorporate "global best tourism practice" into practical activities which promote conservation and sustainable use of biodiversity, especially through National Biodiversity Strategy and Action Plans (NBSAPs). This has been attempted using both a "top-down" and a "bottom-up" approach.

The top-down approach was initiated through a commission to provide a global overview of the existing "state of the art" on the integration of biodiversity into the tourism sector (and its converse), whilst the bottom-up approach was undertaken by commissioning 12 national case studies on integration of biodiversity and tourism in a range of countries with a broad spectrum of biodiversity, economic and political profiles (Belize, Botswana, Canada, Chile, Costa Rica, Kazakhstan, Korea, Mexico, Peru, Seychelles, South Africa and Trinidad & Tobago). (All 12 case studies are available as separate pdf files on the Biodiversity Planning Support Program website[x])

The top-down and the bottom-up were brought together at an International Workshop, "Integrating Biodiversity and Tourism", held in Mexico City from March 29th-31st 2001, and hosted by SEMARNAT (the Mexican Ministry of the Environment and Natural Resources) and SECTUR (the Mexican Ministry of Tourism), out of which this guide has been produced.

In order to assist national biodiversity planners who may be unfamiliar with the tourism sector, an annotated bibliography of relevant print and on-line documents is also vailable on the Biodiversity Planning Support Program website[x].

As stated above, the main objective of this report is to provide national biodiversity planners with a practical tool to allow them to better integrate their plans and activities with those of the tourism sector. The report should, however, also assist those working within the tourism industry to better appreciate the growing importance of "biodiversity" as a significant consideration in ALL tourism planning, not just in biodiversity "hotspots".

We hope that different sections of the report will be useful to policy makers and implementers, biodiversity planners, park rangers, tour operators, hotel owners and managers, planners and builders, NGO representatives and local communities.

Specifically, the guide aims to:

1. assist biodiversity planners to better understand the tourism sector by: clarifying concepts and identifying sustainable tourism practices for biodiversity planners; identifying best practices in sustainable tourism policies, especially with respect to impacts on biodiversity; highlighting examples of the kind of stakeholder relationships that drive the tourism/biodiversity dynamic.

2. assist tourism planners and practitioners to better understand biodiversity as a necessary consideration in their own sector by: identifying practical tools to allow tourism planners to develop a more positive interaction with biodiversity planners; helping local communities, NGOs, government officials and park managers, etc. to design sustainable tourism projects, and identifying best practice for tourism operators.

3. identify ways to improve the relationship between biodiversity planners and (sustainable) tourism planners so as to better protect areas of significant biodiversity value by:
   a) providing evidence that ecotourism can be an economically viable alternative to more destructive development options;

   b) identifying alternatives to conventional mass tourism practices that are less harmful to the natural and socio-cultural environment.

Throughout this report there is an emphasis on the potential for sustainable tourism to generate economically viable development alternatives which contribute to biodiversity conservation goals, and from which local communities might benefit, thus allowing tourism to contribute towards the three main goals of the CBD: biodiversity conservation, sustainable use, and equitable sharing of the benefits arising from this use. Achieving this goal requires that tourism and biodiversity planners understand each other's goals, skills and constraints.

This report represents one part of an ongoing activity to gather together links to the best, most relevant information on the integration of biodiversity and tourism into one place easily accessible to national biodiversity planners. The main goal of this BPSP thematic study has been to try to create a better bridge between best policy guidance on the one hand, and using this guidance to enable more effective promotion of practical biodiversity conservation through tourism-related activities on the other.

In this report, we try to link three different levels of information — (i) policy guidance/principles; (ii) case study experience with implementation of this policy guidance; and (iii) links to tools and resources which can assist implementation.

1.1 Structure of the Guide

This guide has been structured in four parts. In the first part, there is a general discussion on the tourism industry and its relationship with the Convention on Biodiversity. This is followed by a discussion of the principles of the 'top-down approach', that is, how governments can specifically integrate tourism policy with biodiversity planning. The third section centres on the principles of waste management and how they relate to the tourism sector. The last section is a discussion of the principles of ecotourism.

1.2 Layout of the Guide

The guide follows basic narrative conventions. However, in keeping with its objectives, the guide also highlights various principles, referred to as 'Best Practice Guidance', and typically marked:

- Aim to establish a biodiversity institution with high political profile and influence

It also relies on case studies, taking various models on the ground to emphasise the links between biodiversity and tourism. Many of these are presented within the text, under "Examples". Longer case study information is presented in boxes, which contain more detailed information than is found in the main report, or highlight certain models.

We also ensured that as many references as possible are available on the Internet, as many biodiversity planners have little access to well-stocked libraries or scientific journals; the web addresses or other sources for information are given in the endnotes listed in the Endnotes.

2. Overview: The Global Tourism Sector and Biodiversity

Tourism has become one of the most important economic activities in the world and thus has a profound influence on the environment at local, regional and global levels. World tourism grew by an estimated 7.4 percent in 2000 — 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[2]. Receipts from international tourism grew at an average annual rate of nine per cent for the 10-year period of 1988 to 1997, reaching $443 billion in 1997. Tourism is especially important to developing countries —30.5 percent of all international tourist arrivals were in developing countries in 1997.

Total numbers of domestic tourists are more difficult to quantify accurately, but are estimated to be 10 times the number of international tourists. Tourism contributes 1.5 percent of world gross national product (GNP). The industry is also a major source of employment, the hotel accommodation sector alone employing around 11.3 million people worldwide.

The scale and geographical scope of the tourism industry make it a major economic force in shaping both the physical and social world. This gives tourism huge potential as both a positive and negative influence on the world around us. Poorly managed tourism growth has, in many parts of the world, degraded the very resources it aimed to provide access to. On the other hand, sensitively designed and carefully implemented tourism can provide sustainable economic flows with less impact on the environment than alternative development options.

2.1 Tourism and Biodiversity

Travel, tourism and biodiversity have long had a close relationship. Indeed, one could consider Charles Darwin and Alfred Wallace, amongst the first scientists to highlight the diversity of life, as being amongst the first international "nature tourists". It might also be argued that the ultimate basis of all tourism lies in the search for diversity – a desire to "escape" to something different. The question therefore arises: if we homogenise the world around us, where will we escape to?

Today, nature tourism comprises around 50 percent of all international tourism and is increasing at a rate of around 20% per year, much more rapidly than the industry as a whole. In the past, "sun, sea and sand" were overwhelmingly the most important features of a nature-based vacation. Nature tourists today are increasingly interested in visiting unspoiled and less-developed areas with a low tourist density, such as savannahs, rain forests and coral reefs.

2.2 Tourism and the Convention on Biological Diversity

The Convention on Biological Diversity (CBD)[3] entered into force in December 1993. Article 10 of the Convention relates to sustainable use of biodiversity. Tourism has been recognised as a major potential sustainable use of biodiversity in the programme structure of the CBD, and a "Sustainable Use and Tourism" programme has been established. Although the Conference of Parties has yet to specifically address this theme in detail, Parties have been requested to contribute their national experiences on this matter. A considerable amount of background work has been undertaken. Box 1 provides a summary and links to the most important documents in this ongoing process.

In 2000, the Conference of Parties of the Convention on Biological Diversity considered the relationship between tourism and biodiversity during its 5th meeting in Nairobi (*UNEP/CBD/COP/5/20: Sustainable Use Including Tourism*[4]). In its final decisions (*UNEP/CBD/COP/5/V.25 Para.5*[5]), the CoP requested Parties to submit case studies on tourism as an example of sustainable use of biological diversity.

Through these, this study makes a contribution to that call.In response to the need to catalogue the growing literature on sustainable tourism, Ecological Tourism for Europe produced, for a CBD workshop on Biodiversity

Box 1. Sustainable tourism within the CBD Process

The CoP/SBSTTA did not specifically consider Article 10 in their first three meetings. SBSTTA 4 considered two documents on sustainable use including tourism:
UNEP/CBD/SBSTTA/4/11 Development of approaches and practices for the sustainable use of biological resources[6], including tourism; and UNEP/CBD/SBSTTA/4/*Inf.9 Sustainable tourism as a development option: practical guides for local planners, developers and decision makers*[7], submitted by the German Federal Ministry for Economic Cooperation and Development; and adopted *Recommendation IV/7 Development of approaches and practices for the sustainable use of biological resources, including tourism*[8].

COP 4 considered *UNEP/CBD/COP/4/Inf.21 Biological diversity and sustainable tourism: preparation of global guidelines*[9]; and asked Parties to submit, *inter alia*, information on sustainable tourism and biological diversity for the Executive Secretary to use as a base for inputs to the Commission on Sustainable Development. *[Decision IV/15, paras 14; 16*[10]*]*. In this Decision [IV/15, para 14(c)], the COP took note of a programme for the further implementation of Agenda 21 and requested Parties to submit information to the Executive Secretary on, *inter alia*, the involvement of the private sector, local and indigenous communities in establishing sustainable tourism practices; and, through Decision IV/16, Annex II[11], decided to include sustainable use, including tourism, in the list of items for in-depth consideration at its fifth meeting.

SBSTTA 5 considered one document: *UNEP/CBD/SBSTTA/5/13 Sustainable use of the components of biological diversity: identification of sectoral activities that could adopt biodiversity-friendly practices and technologies*[12]; whilst CoP 5 reviewed *UNEP/CBD/COP/5/20 Sustainable use, including tourism*[13] and adopted *Decision V/25*[14]. This Decision of the CoP approves an assessment of the linkages between biodiversity and tourism and recommends that it be forwarded to other agencies working on sustainable tourism, such as the Commission on Sustainable Development (CSD) and the World Tourism Organisation (WTO) and also included in 2002 International Year of Ecotourism. This assessment provides a firm basis for improved integration of biodiversity into the tourism sector by highlighting the major issues, both positive and negative.

and Tourism held in Santa Domingo, Dominican Republic from 4-7th June 2001, a *Compilation and Analysis of Existing Codes, Guidelines, Principles and Position Papers on Sustainable Tourism*[15] which provides a convenient overview for biodiversity planners working with the tourism sector. The *Draft International Guidelines For Activities Related To Sustainable Tourism Development In Vulnerable Terrestrial, Marine And Coastal Ecosystems And Habitats Of Major Importance For Biological Diversity And Protected Areas, Including Fragile Riparian And Mountain Ecosystems* are also now available[16].

As the Compilation reveals, there are a large number of other initiatives, outside of the mechanism of the CBD, linking biodiversity and tourism (including ecotourism) that have been undertaken by other organisations, including the World Tourism Organisation[17] (WTO), UNESCO[18], NGOs such as The Ecotourism Society[19], as well as numerous national and regional level destinations, and private tourism companies.

The United Nations Environment Programme (UNEP) Division of Technology, Industry and Economics has assembled an excellent webpage on Sustainable Tourism[20] which contains, among many other useful documents and links, the UNEP Principles on Sustainable Tourism[21]. It is strongly recommended that biodiversity planners working with the tourism sector familiarize themselves with the Compilation and the Principles.

With this veritable explosion of information, it is becoming increasingly difficult for national biodiversity planners to (i) identify, (ii) access, and (iii) assimilate all of the available information on the interface between biodiversity and tourism. It is also sometimes difficult for biodiversity planners, often working in fledgling, under resourced government departments, to see the relevance of so many "*easy-to-speak, yet hard to enact*" bullet-point guidelines and principles to their day-to-day activities on the ground.

2.3 The Government Planning Framework for Biodiversity and Tourism

National and regional development plans aim to improve the social and economic well being of their populations. Increasingly, planners are realizing that, in the past, this aim ignored the need to maintain environmental integrity. In the last ten years, it has become increasingly clear that maintaining environmental integrity is, in fact, a key component of social and economic development. This paradigm shift, from environmental neglect to a realization that a healthy environment is the foundation of all sustainable development, has also begun to influence the tourism sector.

As early as 1988, the World Tourism Organisation (WTO) defined sustainable tourism as "*(tourism) leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems*". Where tourism has been promoted at the expense of environmental integrity, as in much of the Mediterranean Basin, it is clear that a failure to maintain a healthy environment has undermined the sustainability of the both tourist industry, and the social and biological fabric of large parts of the region.

As nations and economic sectors commit themselves, in their policies and strategies, to sustainable development, they are moving into uncharted waters. Sustainable development, at the national level, or sustainable tourism at the sectoral level, requires a fundamental change in the way that planning is done. It requires a more holistic approach, a need to plan to meet multiple objectives, not one single goal, and, perhaps most importantly, requires that a set of quantified indicators of sustainability, including maintenance of biodiversity, be defined and monitored.

Policies to sustain biodiversity need to become an integral component of the sustainable policy of any economic sector. However, planners in other sectors have little experience with the concept of biodiversity and need assistance to develop appropriate and effective policies. There are great opportunities for biodiversity planners and tourism planners to work together to meet commonly-held objectives.

Similarly, national development policies have tended to focus on national goals rather than local goals and, often, local sustainability has been sacrificed to national development goals which, after destroying existing local sustainability, turn out to be unsustainable in the long-term.

Sustainable tourism, based on local biodiversity, has considerable potential to create a "middle ground" — a form of sustainable development which provides both local and national benefits. The challenge facing biodiversity planners is how to get "biodiversity thinking" integrated into overall national development planning, including tourism planning. To date, this has not been very successful, but there are some notable examples of progress being made around the world from which we can all learn.

- Best Practice Guidance: Aim to establish a biodiversity institution with high political profile and influence

It may be impossible in most countries to establish a full-blown Ministry of Biodiversity, or have a biologist as President (!), but there are examples where National Biodiversity Units, or Environment Agencies responsible for biodiversity, have been established under the Office of the President. This allows biodiversity "interests" to interact on an equitable basis with other large and powerful ministries/sectors

2.3.1 Examples of biodiversity institutions in national governments

In Chile, biodiversity is handled inside a strong environment institution. The National Commission for the Environment (CONAMA)[22] was created in 1994. This committee, composed of representatives from 12 ministries, but contained within the President's Secretariat, is responsible for coordination of national environmental matters, administration of all environmental impact assessments, operations of the national environmental information system, coordination and evaluation of ecotourism projects, and of other activities inside and around protected areas.

Even outside of the Office of the President, it is possible to elevate biodiversity to a central position in the national planning process. In Costa Rica, the entire country is divided into 11 regions comprising the National System of Conservation Areas (SINAC) under the jurisdiction of the Ministry of Environment and Energy (MINAE).

A Conservation Area is defined as a territorial unit governed by a single strategy for development and administration, with 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. SINAC's administration thus covers that area of national territory (including protected areas) where exploitation of biodiversity and natural resources may take place. Each Conservation Area contains protected wilderness areas (PWAs) with associated buffer zones. There is good coordination between state institutions and civil society that carry out activities in the areas. This system of making ALL land conservation land, plus the recent environmental and biodiversity legislation which has been enacted in the country, allows SINAC to have a positive influence on all developments , at an early stage in planning, not just those in and around national parks.

In other cases, for example CONABIO in Mexico and INBio in Costa Rica, a biodiversity institution has been established which has a Steering Committee drawn from a wide range of other ministries. A key factor in the success of CONABIO and INBio has been the attempt to establish a politically "neutral" institution — with a mandate to promote biodiversity knowledge nationally and make its information available to all other sectors. (For more information visit the web addresses on CONABIO[23] and INBio[24]. Both sites are in Spanish, with some sections available in English.)

- Best Practice Guidance: Ensure that biodiversity and tourist strategies are harmonized through mutual consultation between government and other stakeholders from both sectors

Biodiversity and tourism planning are complex, inter-disciplinary and inter-sectoral exercises in their own right; integrating and harmonising the two is an extra challenge, especially when the need to include the private tourism sector, NGOs, local communities, and financial institutions is taken into consideration.

Perhaps the simplest way to achieve governmental integration of biodiversity and tourism is to include both biodiversity and tourism in the same institution.

In South Africa, where nature-based tourism is the best-use option for much of the country, responsibility for tourism lies within the Ministry of Environmental Affairs and Tourism. The Minister of Environmental Affairs and Tourism is ultimately responsible for the government's management of tourism (*see Box 2*). Whilst giving the potential for strong harmonisation of environmental and tourism policy, in reality, the Department of Environmental Affairs and Tourism has been under-staffed and barely able to carry out more than liaison and administrative functions.

Some recent progress to strengthen the Department has already been made, but further attention is urgently required to improve the Department's effectiveness and give it greater influence at a higher level.

Even if tourism and biodiversity are not included in the same ministry, it is possible to forge strong working links between them through a range of different mechanisms, ranging from informal consultation, through memoranda of understanding, to jointly developed policies and strategies.

In Mexico, the Commission for the Knowledge and Use of Biodiversity (CONABIO), the Ministry of the Environment

Box 2: The South African Ministry of Environmental Affairs and Tourism

The tourism responsibilities of the Ministry are as follows:

- To raise the profile of the tourism industry and put it in a position to compete with other sectors for funding and other national resources
- To unleash the sector's potential as a leader in wealth-creation and employment generation.
- To link the management of tourism with the critical environmental products that it uses, viz. national parks, protected areas and cultural resources by formulating a cohesive development strategy and introducing specific environmental functions of monitoring, regulation and impact assessment where appropriate.
- To carry out a critical coordinating role among ministries whose mandates and activities directly impact on tourism - namely Ministries of Finance, Public Works, Transport, Trade and Industry, Arts, Culture, Science and Technology, Labour, Education, Home Affairs and Foreign Affairs.
- To facilitate creative and strategic interaction between the tourism policy and policies guiding the management of land, water, energy and other natural resources

Within the Ministry, the Department of Environmental Affairs and Tourism is responsible for:

Planning and policy-making

- tourism policy formulation and revision, in conjunction with the national tourism organisation and other major parties
- long-term planning for tourism (including master planning)
- maintain an overview of the implementation of policies and actions approved by Cabinet and the Minister
- coordination and monitoring of the tourism policy and implementation plan

Development promotion

- take on a dynamic leadership role in lobbying the cause of tourism
- work closely with the national and provincial tourism organisations in supporting and facilitating tourism development
- take the lead in initiating discussions and negotiations with other Ministries and Departments to remove bottlenecks and impediments to tourism development at the national level
- bring about the necessary changes in legislation to promote and facilitate tourism development

Coordination and liaison

- coordination with provincial tourism departments in order to ensure effective cooperation
- coordination, communication and direct liaison with other tourism interests and stakeholders at a national level
- coordination with Environmental Affairs, Foreign Affairs, Trade and Industry, Transport, Home Affairs, Education, Labour, Land Affairs and other related ministries and departments
- international liaison and coordination of international agreements
- representing South Africa in international and regional organizations
- coordination of donor funding

Facilitation

- facilitation of a dedicated tourism fund and funding mechanism
- formulation, approval and management of tourism incentive schemes
- creating an enabling fiscal and legal framework for tourism
- encouragement and promotion of foreign investment
- facilitation of training policies and programmes
- promotion and facilitation of responsible tourism and effective environmental management
- facilitation of tourism safety and security

Source: Government of South Africa (1996) White Paper On The Development and Promotion of Tourism in South Africa

(SEMARNAT), and several other institutions from the public, private, social and academic sectors, all played an important part in the development of the Politica y Estrategia Nacional para el Desarrollo Tur'stico Sustentable (National Policy and Strategy for Sustainable Tourism), in collaboration with the Ministry of Tourism (SECTUR).

Australia has developed a national strategy 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 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, the Department of Tourism published the Australian National Ecotourism Strategy. In 1995, the Department of the Environment, Sport and Territories published "Two Way Track: Biodiversity Conservation and Ecotourism" which contains some excellent general recommendations on tourism/biodiversity sectoral integration[25].

In those countries where the tourism sector is a significant stakeholder, it may be necessary to establish a range of other "associations" to bring everyone "around the same table" during development of strategies and policies for tourism and biodiversity. Box 3 gives some general guidance on how to establish a Sustainable Tourism Committee.

Other examples of this kind of initiative from countries included in this study include:

Costa Rica*:* Strengthening inter-sectoral coordination is achieved by establishing 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). Local communities that have formed tourism associations and cooperatives or established private reserves[3], or that rely on ecotourism as their main source of revenue, carry out their activities in coordination with: a) the Costa Rican Tourism Institute (ICT); b) MINAE in the case of ecotourism projects; c) or the Agrarian Development Institute (IDA) in the case of agrotourism. SINAC has a strong interest in promoting tourist activities since around 60% of its revenues derive from tourist receipts arising from conservation lands.

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.

Canada*:* Canada has a tradition of establishing senior level government committees, including representatives from national, provincial and territorial governments. Examples include: the Council of Ministers of Environment and Wildlife; Ministers of Parks; Ministers of Tourism; the Federal Provincial Parks Committee. While these councils and committees mainly address their core responsibility areas, cross-sectoral topics can be addressed at these high level meetings.

The Canadian Tourism Commission (CTC) developed their vision and mission via a 20- member team of industry experts, then presented them to a broad range of industry stakeholders, provincial and territorial governments, and destination marketing organisations, in order to achieve a consensus on a shared perspective on Canadian tourism. The CTC has commissioned studies on sustainable tourism, including: "*A Catalogue of Exemplary Practices in Adventure Travel and Ecotourism*", also "*Best Practices in Canada's Tourism Industry: Partnerships*, and *Best Practices in Natural Heritage Collaborations: Park Agencies and Eco-Adventure Operators*"[26].

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 partnership aims to: (i) encourage and package sustainable tourism based in nearby communities and utilising the Biosphere Reserves; and (ii) help communities value protected areas through demonstrating that economic benefits can emerge from ecotourism. The partnership has developed Principles and Guidelines for Sustainable Tourism for all its members and tourism opportunities, and invites client feedback from both operators and the Biosphere Reserve Association, and carries out member education activities, such as market-ready workshops.

Even outside of the private sector, there are opportunities for government planners, from both biodiversity and tourism sectors to engage with academic researchers, NGOs, etc.. For example, in Australia, the Cooperative Research Centres (CRC) network has one group dedicated to sustainable tourism[27]. The Sustainable Tourism CRC is a collection of government, academic and private sector institutions which collaborate on a range of tourist-related projects, including glowworm tourism[28]!

In the United Kingdom, the Centre for Responsible Tourism of the University of Greenwich, in a collaborative research venture with the Overseas Development Institute (ODI), the International Institute for Environment and Development (IIED), and funded by the Department for International Development (DFID), has undertaken a major study of "pro-poor tourism"[29], assessing the extent to which tourism has provided benefits to poorest sectors of society in a range of countries.

Box 3. Creating a Biodiversity Conservation Planning/Sustainable TourismCoordinating Body

A number of countries have established mechanisms for inter-sectoral coordination of biodiversity and tourism with varying degrees of success. In each case, any inter-sectoral body for coordinating tourism/biodiversity activities should have representation from government and non-government institutions, including the tourism industry, local community organisations, and NGOs.

The main objectives of a Biodiversity Conservation Planning/Sustainable Tourismcoordination body might include:

1. Policy Coordination at both national and regional levels
- Develop short and long term plans as a joint effort among the government, private sector, and NGOs (including local communities);
- 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;
- Develop appropriate international cooperation within the corresponding region with the aim of establishing related policies and information exchange.

2. Setting and Maintaining Performance Standards within the Industry
- Compile and exchange information on biodiversity conservation planning, ecotourism and other modes of sustainable tourism;
- Contribute to safeguard natural areas from unplanned and uncontrolled development;
- Promoting Codes of Conduct for Tourists, Tour Operators and Hotels;
- Establish specific training programmes for tourism enterprises and protected areas staff.

3. Promoting equitable sharing of Benefits arising from tourism/biodiversity activities
- Establish methods and mechanisms that may allow the active involvement of resident human populations in sustainable tourism projects;
- Strive for tourism to become a lucrative and sustainable activity that will foster socio-economic development;
- 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.

Source: modified after Ceballos-Lascurain, 1998. Ecotourismo, Naturaleza of Desarrollo Sostenible. editorial Diana, Mexico DF.)

3. Involving the Tourism Sector in Biodiversity Planning

As the concept of "use it or lose it" becomes more widely accepted in biodiversity management, the search for sustainable uses and partners with market experience will become increasingly important to biodiversity planners. There are many examples of government controlled attempts to introduce tourism to protected areas — almost all of them have failed to generate true profits. The role of government is to create an enabling environment within which local, national and international entrepreneurs can operate. For this to work, tourism operators, or their government representatives, must be involved in biodiversity planning from an early stage.

In Costa Rica tourism is an important part of the Estrategia Nacional de Biodiversidad (ENB or National Biodiversity Strategy). The ENB considers sustainable tourism to be a major activity in areas of high biodiversity. There are estimated to be over 200 successful initiatives, mostly private but well-integrated into the overall national biodiversity planning. (See pages 52-58 of the Costa Rica Case Study[30] for examples of good practice in tourism and planning for biodiversity conservation.)

Cuba: During the 1992 Earth Summit, Cuba was one of only two countries to obtain the highest rating for implementing sustainable development practices, and 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. The success that Cuba has had with sectoral integration may arise from the strong tradition of centralized planning that exists in socialist countries (see also some Central European countries).

3.1 Partnerships with NGOs

Non-profit organisations can play an important role in promoting the connection between biodiversity decision-makers and tourism planners. Many environment NGOs around the world are developing specific tourism programmes, seeking to link biodiversity conservation with practical sustainable tourism activities. A number of international conservation NGOs, such as IUCN, WWF, Conservation International and The Nature Conservancy, are carrying out specific activities attempting to promote this link between biodiversity planning and tourism, including:

(i) research on linkages between biodiversity and tourism;
(ii) developing national and regional ecotourism strategies;
(iii) applying a local capacity building approach;
(iv) acting as liaison between local communities and the (sustainable) tourism industry;
(v) carrying out ecotourism product development;
(vi) mainstreaming tourism in conservation practices;
(vii) promoting international markets for ecotourism products and destinations.

National and regional NGOs can perform the same roles at different scales utilizing their superior knowledge of local conditions.

3.1.1 Examples of Roles of International NGOs

Conservation International: Conservation International (CI) has an Ecotourism Department. 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. CI's main activities are: developing national/regional ecotourism strategies, capacity building, ecotourism product development, and international marketing. Specific projects include: 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)[31].

The Earthwatch Institute[32]: The Earthwatch Institute is an international non-profit organization, founded in Boston and now with offices in Oxford, England, Melbourne, Australia and Tokyo, Japan. 50,000 members and supporters are spread across the US, Europe, Africa, Asia and Australia and 3,500 members volunteer their time and skills to work with 120 research scientists each year on Earthwatch field research projects in over 50 countries all around the world. The mission of the Earthwatch Institute is to promote sustainable conservation of our natural resources and cultural heritage by creating partnerships between scientists, educators and the general public. This is accomplished through three primary activities:

- Research - Supporting the fieldwork of research scientists worldwide and collecting the base line data essential for sustainable management decisions.
- Education - Educating and inspiring the next generation of leaders in education and business as well as the general public both at home and overseas.
- Conservation - Solving problems by active and ground-breaking collaborations with conservation and preservation partners.

Unlike other environmental organizations, the Earthwatch Institute puts people in the field where they can assist scientists in their fieldwork. They are part of the action, they learn new skills, and develop a deeper understanding of their role in building a sustainable future. Earthwatch believes that teaching and promoting scientific literacy is the best way to systematically approach and solve the many complex environmental and social issues facing society today. The Institute has a commitment to education, offering 300 expedition fellowships to teachers and students every year.

Worldwide Fund for Nature (WWF): WWF is collaborating with Discovery Initiatives[33], the leading sustainable tourism operator in the UK to organise trips to allow travellers to visit projects supported by WWF throughout the world. A series of tours will be available, all of which will follow sustainable tourism guidelines. Among the requirements is that partnerships should be formed with local people wherever possible. The first tour destinations will be Wanglang Reserve in China, home of the Giant panda; and Namibia, where travellers will be given the opportunity to meet local communities who are managing wildlife in conservancies, and to visit the Okonjima Cheetah Sanctuary. (A number of similar projects are coordinated by the Cheetah Conservation Fund, Namibia). As part of the collaboration with WWF, Discovery Initiatives will also sign up to the UN Tour Operator Initiative, which requires its members to participate in best practice activities and to implement a code of practice for sustainable tourism. It is anticipated that each trip will generate substantial funds for the projects and communities that are visited. This will help to provide training for local people in tourism, as well as initiating local enterprise and enabling the development of a monitoring process whereby local communities can determine how Discovery Initiatives operate in their area. The overall aim is to allow local people to take control of the development of tourism in a way that meets their needs without sacrificing their environment.

The Kunene Project[34] in north-west Namibia, funded by WWF and its local partner, Integrated Rural Development and Nature Conservation (IRDNC), provides local communities with alternative sources of income, mainly through eco-tourism, so that the wildlife is valued as a natural resource. Until recently, the communities in Kunene had no rights over the communal, government-owned land which they farmed – unlike the private landowners further south. This gave them little or no incentive to conserve wildlife.

In 1996, some of the communal lands were converted to conservancy areas, following extensive lobbying by the project. The boundaries of each conservancy area are negotiated and agreed by the local community which decides how to use the natural resources within a conservancy - for example, which areas to keep as pristine wildlife areas, which to set aside for tourism and where to allow limited hunting if wildlife numbers can support it.

The project funds community game guards who use their expert tracking skills to monitor the movements of wildlife. They are unarmed but use networks of farmers to alert them to problems as part of their daily livestock management. The project is unusual because Kunene is not an “official” protected area yet people are able and willing to live and work alongside wildlife.

By giving the communities control over their resources, the project has enabled them to overcome some of the challenges, such as creating water holes outside villages thus keeping elephants at a safe distance. But other challenges remain, not least the prospect of future droughts.

The project also recognises women's central role as resource managers: as the ones who walk to and from water holes every day, they must be involved in discussions about locating new water pumps. Local women are therefore employed as "community activators" to travel between villages and talk to other women so that they can participate fully in the project and the management of other enterprises such as conservancies.

Conservancies are an exciting development, empowering poor, disenfranchised rural people, providing alternative livelihoods to subsistence farming and conserving wildlife in the process. A member of one conservancy committee summed up the project's success at a meeting to discuss a proposal for a series of new tourist camps. He said it was the increase in wildlife numbers that was attracting tourist companies to make such proposals in the first place.

(NACOBTA)[35], a non-profit membership organisation that supports communities in their efforts to develop tourism enterprises in Namibia. NACOBTA currently has approximately 45 members including campsites, rest camps, traditional villages, craft centres, open museums and tour guide associations. As of August 2001, about 25 are currently open for business, whilst the others are in development. These enterprises are located throughout Namibia but predominantly in the Erongo, Kunene and Caprivi regions. Further community tourism enterprise development is planned for the north, central and southern regions from January 2002. Support of these enterprises makes a crucial contribution to rural development in Namibia. It allows communities to take part in the tourism sector and to develop businesses, which will provide employment opportunities and generate income in the region where they live.

3.1.2 Examples of Roles of National NGOs

Costa Rica: A number of Costa Rican NGOs, dedicated primarily to environmental research and biodiversity education, also promote sustainable tourism activities. Examples are the Tropical Scientific Center (CCT), the Monteverde Conservation Association (ACM), the National Biodiversity 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 targets many of its training activities at tour operators, nature guides, protected areas (SINAC) staff, and members of rural communities throughout the country. INBio is also running a series of courses called "*Biodiversity, Safety, Prevention and Rescue*", for ecotourism and adventure guides from Central American countries. These courses are organised in coordination with the Costa Rican Red Cross and the Costa Rican Tourism Institute (ICT).

Canada has a number of long-established NGOs 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/territory-based environment NGOs such as the Alberta Wilderness Association. The CNF is a nonprofit 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". Such NGOs support 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.

Netherlands
"Nature for Tourism, Tourism for Nature" is a project launched by the Netherlands Committee for IUCN[36]
(The World Conservation Union) focusing on the positive effects tourism may have on the conservation of nature.

The project aims to create close links between Dutch tour operators and local nature conservation organisations and projects in the countries in which they operate, thus making use of the IUCN network. This gives tour operators the opportunity to support financially 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 targets small-scale biodiversity conservation initiatives through training, education, capacity building of local NGOs and sustainable ecotourism.

3.2 Land-use planning

The phrase that "possession is nine-tenths of the law" holds as much in planning as in real life. Mapping is an integral part of all planning and the increasing use of GIS to superimpose different maps is a powerful tool for identifying and resolving land use conflicts.

- Best Practice Guidance: Ensure that both biodiversity conservation and tourism are recognized as a (potential) land use in any national land use classification system

3.2.1 Examples of Land-use Planning Systems

Namibia: The Namibian Ministry of Environment and Tourism's 1994 Policy Document "Land Use Planning: Towards Sustainable Development" supports "*rational sustainable and integrated planning of land use in all environments throughout Namibia according to the sound ecological principles contained in Article 95(l) of the National Constitution*", placing sustainable development at the core of all land use change in communal state land, privately-owned commercial farmland, proclaimed State land, urban areas and wetlands systems, including catchments. The policy document refers specifically to conservation and sustainable use (including tourism) of biological diversity as a land use.

Eritrea: Mapping those areas considered to be important by different economic sectors does not necessarily require high technology. In Eritrea, each ministry, including the Ministry of Tourism, mapped "areas of interest" on transparent sheets laid over the national map.

These transparencies formed the basis of a land use map which was built into the national environmental assessment procedures — any project location which overlaps with an "area of interest" of another sector triggers mandatory consultation with that sector during project design and before approval. The original maps are now being converted to more accurate GIS layers.

At a more detailed level, national and regional land-use maps could be zoned both for biodiversity and for different levels of potential tourism use (eg. high, medium or low intensity). Only nature-based and ecotourism projects should be allowed in areas of high biodiversity or fragile ecology, in order to minimise negative impacts. Wherever possible, local communities should be involved in the land-use zoning (and any tourism projects also).

Egypt: The 1997 Egyptian Ecotourism Master Plan for the southern coast of the Red Sea includes a zoning scheme, including strictly-protected, restricted, moderate tourism and semi-intensive tourism zones. The objective of the Master Plan was to promote a sustainable tourism development model for a 215-km strip of the southern coastline, 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 implemented, and includes the development of four new eco-lodges[37].

Australia: Even within a single conservation area, it is imperative to undertake a careful process of zoning for multiple-use. The Great Barrier Marine Park and World Heritage Area[38] in north-eastern Australia covers an area of 350,000 km2, larger than many countries. Zoning is specified, by the Great Barrier Reef Marine Park Act 1975, as one of the primary tools for protecting and preserving the Great Barrier Reef Marine Park and World Heritage Area. Zoning separates activities that may conflict with each other, such as commercial fishing and tourism.

Zoning also allows areas that need permanent conservation to be protected from potentially threatening processes by being placed "off limits" to users (except for the purpose of scientific research) for varying lengths of time. Marine Park zoning plans are not dissimilar to planning schemes prepared for local government areas. For example, zoning plans provide for activities that are as-of-right, with permission or prohibited. Each zone category specifies which activities can or cannot be undertaken and whether or not permission is required to undertake those activities.

The principle objectives of any GBR zoning plan (according to sec. 32(7) of the Act) are:

a) the conservation of the Great Barrier Reef;

b) the regulation of the use of the Marine Park so as to protect the Great Barrier Reef while allowing reasonable use of the Great Barrier Reef Region;

c) the regulation of activities that exploit the resources of the Great Barrier Reef Region so as to minimise the effect of those activities on the Great Barrier Reef;

d) the reservation of some areas of the Great Barrier Reef for its appreciation and enjoyment by the public; and

e) the preservation of some areas of the Great Barrier Reef in its natural state undisturbed by man except for the purposes of scientific research.

More details are provided in boxes 4a and 4b.

Box 4a. Controlling tourism impacts in the Great Barrier Reef Marine ParkThrough Zoning

There are seven general stages in the development of a zoning plan for the Great Barrier Reef Marine Park.

1. Initial information gathering and preparation: the Authority assembles and reviews information on the nature and uses of the area, and develops materials for public participation and for consideration by the public.
2. Public participation and consultation before the preparation of the plan: the Authority seeks public comment on the accuracy and adequacy of the information, and gathers suggestions for the content of the zoning plan.
3. Preparation of a draft plan: a draft zoning plan is prepared with accompanying notes and/or displays explaining the plan to the public. Specific objectives are defined for each zone at this stage.
4. Revision of the draft plan through public participation and consultation: the Authority seeks comment on the published draft plan.
5. Consideration of public comment and finalisation of the plan.
6. Adoption of the revised plan: the plan now takes into account the comments and information received in response to the published draft plan.
7. Submission of the plan to the Commonwealth Minister for the Environment and Heritage: if the plan is accepted, the Minister tables it in both houses of Parliament. If no motion of disallowance is passed after 15 days, the plan is brought into force.

Zoning maps are then prepared and distributed. They show what activities are permitted (and where those activities are permitted), the locations of zones and other relevant information to help park users abide by their responsibilities. Continued research and constant monitoring of Marine Park activities and changing circumstances require that zoning plans be reviewed as required. Zoning plans can be reviewed individually or on a Reef-wide scale.

Box 4b. Guide to Zone Types in the Great Barrier Reef National Park and World Heritage Area

General Use 'A' Zone
The least restrictive of the zones, this provides for all reasonable uses including shipping and trawling. Prohibited activities are mining, oil drilling, commercial spearfishing and spearfishing with underwater breathing apparatus.

General Use 'B' Zone
Provides for reasonable use, including most commercial and recreational activities. Trawling and general shipping are prohibited as well as those activities not allowed in General Use 'A' Zone.

General Use Zone
Provides areas of Marine Parks for a diverse range of recreational and commercial activities, consistent with the Region's long-term conservation.

Marine National Park 'A' Zone
For appreciation and recreational use, including limited line-fishing. Fishing is restricted to one line with one hook per person. (When trolling for pelagic species more than one line may be used.) Spearfishing and collecting are prohibited, as well as those activities not allowed in General Use 'B' Zone.

Habitat Protection Zone
Provides areas of Marine Parks free from the effects of trawling, while allowing for a diverse range of recreational and commercial activities.

Estuarine Conservation Zone
Provides for estuarine areas free from loss of vegetation and disturbance and from changes to the natural tidal flushing regime, while maintaining opportunities for commercial and recreational activities.

Conservation Park Zone
Provides areas of Marine Parks which allow opportunities for their appreciation and enjoyment including limited recreational fishing.

Marine National Park 'B' Zone
Provides for appreciation and enjoyment of areas in their relatively undisturbed state. It is a "look but don't take" zone. Fishing and all other activities which remove natural resources are prohibited. Marine National Park Buffer Zone: Normally 500 metres wide, this zone provides for trolling for pelagic species around reefs which have been given a level of protection which prohibits all fishing. Trolling for pelagic species is unlikely to significantly affect the 'resident' marine life for which protection is needed. Buffer Zone Provides protected areas of Marine Parks and allows opportunities for their appreciation and enjoyment. Buffer Zones allow mackerel trolling in areas adjacent to reefs zoned as National Park. National Park Zone Provides protected areas of Marine Parks of high conservation importance: a 'look but don't take' area.

Scientific Research Zone
Set aside exclusively for scientific research. Entry and use for other reasons is prohibited.

Preservation Zone
Provides for the preservation of the area in an undisturbed state. All entry is prohibited, except in an emergency, with the exception of permitted scientific research which cannot be conducted elsewhere.

Source: http://www.gbrmpa.gov.au/corp_site/management/zoning_and_plans_of_management.html

3.3 Environmental Impact Assessment

No system of zoning is perfect and there will always be situations where projects are proposed in locations where they may have significant negative impacts on the environment (including biodiversity). The Environmental Impact Assessment (EIA) was developed in the 1970s for exactly this reason. It should be used to ensure that tourism-related projects are screened for negative impact on biodiversity. In the past, EIA procedures have been criticized as being inadequate for assessment of impacts of tourism on biodiversity (see Warnken and Buckley 1995 for a review[39]) but, in most countries, they still form the most realistic and (potentially) effective tool for improving project design to reduce potential impacts. The Annex of CoP Decision V/25 on biological diversity and tourism outlines the major environmental and socio-economic impacts of tourism as follows:

Environmental impacts: (i) use of land and resources;(ii)impacts on vegetation; (iii)impacts on wildlife; (iv) impacts on sensitive ecosystems (e.g. mountain environments, marine and coastal environments); (v) Impacts on water resources; (vi) waste management; and (vii) environmental impact of travel.

Socio-economic and cultural impacts of tourism: (i) influx of people and related social degradation; (ii) impacts on local communities; (iii) impacts on cultural values.

- Best Practice Guidance: Ensure that all tourism projects enter into the national environmental assessment process at the appropriate level by creating cross-references to relevant legislation and policy documents.

National environmental assessment procedures have been enacted in most countries. Although most do not explicitly mention biodiversity as a particular component of assessment (see the UNEP/BPSP thematic study on Integration of Biodiversity into Environmental Assessment Procedures for more details[40]), most address biodiversity implicitly through mention of protected areas, endangered species, etc. Similarly, tourism projects are sometimes neglected in Environmental Assessment Procedures, especially the potential for cumulative impacts arising from a combination of small tourism projects.

Biodiversity planners can make a great contribution to improving this situation by ensuring that appropriate information on significant ecosystem, species and genetic diversity is made available to EIA practitioners. They can also work with tourism planners and project proponents to develop appropriate indicators for monitoring potential cumulative impacts arising from tourism projects.

Box 4b: The Seychelles Environmental Protection Act

In the Seychelles, the Environment Protection Act (1994) and its Environmental ImpactAssessment regulations (1996) are, and will be for some time, the means by which all physical developments are controlled and the concerns of biodiversity incorporated therein. All developments require environmental authorisation under the EPA and this is distinct from planning approval, and according to the law, cannot be overruled by the Planning Authority. This would apply to tourism projects with significant infrastructure. Biodiversity issues are incorporated into the EIA by reference to the Environmentally Sensitive Areas Atlas held and maintained by Ministry of Environment and Transport (MET) and by specific biodiversity assessments if required.

In the Seychelles (draft) Tourism Master Plan there is a section entitled "Environment Impact Assessment and Control Measures", that describes projects, future utilities and infrastructure requirements of the expanded tourism industry, laying out assessed capacities of various potential sites and specifying the required technologies to be utilized to minimise impacts. Crucially the Tourism Plan refers to a land use plan to be developed by the Ministry of Land Use and Habitat (MLUH) and how it is essential that this be consistent with both the tourism land use plans and the Environment Sensitive Area Atlas held and maintained by the MET.

- Best Practice Guidance: Ensure that individual projects pass through an appropriate level of environmental assessment.

A number of specific guidelines have been developed for environmental impact assessment of tourism projects. Amongst these is a useful guideline on environmental assessment of coastal tourism from Mozambique[41].

Even outside of official EIA procedures, biodiversity planners can devise simple questionnaires, backed up with useful information on practical steps to avoid environmental impacts, which can be used in planning and project approval.

3.3.1 Example of Environmental Impact Assessment Process in Ecotourism Development

Australia: Below is a typical set of screening actions for assessing the likely impact of a tourism-related project for the Great Barrier Reef World Heritage Area, and a linked case study.

In order to control the impact of tourism on the park, those responsible for tourist developments and operations are required to obtain a permit. Prior to issuing a permit, the potential environmental effects of the proposal are evaluated.

The evaluation should involve:
- identifying potential impacts;
- seeking public comment on the likely effect the proposed activity might have on the area;
- removing, preventing or minimizing unacceptable impacts;
- identifying remaining risks for which protective measures are developed in case rehabilitation, restoration or removal is required;
- identifying those potential impacts for which monitoring is required
- providing, as far as possible, adequate legal and financial protection for the Australian taxpayer in the event that the Authority has to complete the project or rehabilitate the site in the event of default or catastrophe.

In deciding whether a permit should be issued, the following are taken into account:
- objective of the zone (i.e. general use or restricted);
- orderly and proper management (e.g. does the activity comply with other laws?);
- future options for use of the Marine Park;
- conservation of the park's natural resources;
- existing, future and desirable use and amenity of the area and its surroundings;
- adequacy of transport arrangements;
- health and safety provisions;
- provisions for removal;
- arrangements to make good any damage;
- size, extent and location of any proposed use in relation to any nearby use;
- likely effects of any proposed use on adjoining and adjacent areas and any possible effects of the proposed use or entry on the environment; and proposed means of access to and egress from any use, and adequacy of provision for aircraft or vessel mooring, landing, parking, loading and unloading.

An example of the application of these actions is in the proposal for an ecotourism resort on Green Island, a part of the Great Barrier Reef, Australia[41]. This case study provides a good example of the use of the principles of EIA in the design phase of a tourism project in a highly sensitive environment.

Philippines: A document entitled, "Appropriate Tourism Impact Assessment: A Case Study of Kankiki Point Resort, Plawan, Philippines" [42]also provides a useful general framework for environmental assessment of tourism projects. This document is available for download on The International Ecotourism Society website[42].

In Eritrea, there is no environmental legislation, yet an environmental assessment process operates on a voluntary compliance basis. Examples of the simple questionnaires they use to complete environmental assessment of small hotel projects are available on the internet[43].

3.4 Carrying Capacity and Limits of Acceptable Change

Carrying capacity is an ecological term that has been widely applied to areas beyond its original application. Even within ecological theory, the term has been extensively criticised, but retains some value as a conceptual heuristic (a device for thinking) which should not be applied to the real world too rigidly. As early as 1981, the World Tourism Organisation defined carrying capacity for tourism as: "*the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic and socio-cultural environment and an unacceptable decrease in the quality of visitor satisfaction*"**.**

The obvious weakness with this definition is its focus on a precise number of tourists, when so many of the underlying variables are not fixed. In reality, each tourist can have a different level of impact, technological changes can alter this impact, environmental resilience may fluctuate, etc.

These weaknesses of the carrying capacity concept have led to a focus on alternative measures of tourism impact, such as Limits of Acceptable Change (LAC) and Visitor Impact Management (VIM). This shift from a specified use level to defining desired, measurable limits to human-induced changes in the natural and social setting of an area used for tourism, allows the identification of appropriate management strategies to maintain and/or restore desired conditions.

VIM was developed by the National Parks and Conservation Association of the USA to assess and manage 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 simple numbers of visitors. Several references provide insights into the application of the traditional concept of carrying capacity[44].

3.4.1 Examples of Carrying Capacity Concept

Botswana: Tourism in the north and northeast portions of the country (mainly wildlife watching) is considered to be approaching its carrying capacity. A new ecotourism strategy is being developed which aims at product diversification by identifying new projects in other 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.

Kenya: In Kenya, a similar policy has been adopted, in conjunction with a differential pricing policy, with international visitor rates ranging from US$15 for underused parks to US$27 for the most crowded. In Costa Rica, however, there is evidence that a similar increase in protected area entrance fees resulted in a decrease in the number of foreign visitors during 1994-95, a trend which reversed following reduction in the fees.

Costa Rica: The increase in daily visitor numbers to the Monteverde Cloud Forest Reserve in the late 1980's led to a restructuring of visitation in 1991, limiting visitors to only 100 at a time (later raised to 120) and restricting most tourists to well-marked trails covering only about 2% of the reserve. At the same time, more naturalist guides were hired and trained, and entrance fees for foreigners were increased sharply to US$23 (including a guided tour and slide show), in the hope of reducing the number of visitors, especially those on package tours.

Ecuador: The Quito-based tour operator TROPIC Ecological Adventures and the Huaorani people have worked together to design trips to encourage tourists to stay with the local community. In order to limit environmental and cultural impact to acceptable levels, they have set a limit of just eight guests, once a month[45].

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.

3.5 Greening Tourism

Conventional mass tourism constitutes the bulk of the tourism industry and this will remain the case for some time. Biodiversity planners must, therefore, live with the reality of the impact of mass tourism on biodiversity, and work with tourism planners and operators to identify measures to make mass tourism more environmentally-friendly and minimise its negative impacts on biodiversity.

The negative environmental impacts of tourism were outlined in Section 3.3 — these apply especially to mass tourism. But, because the majority of these impacts are indirect, cumulative or diffuse, it is especially hard to mitigate against them. In fact, these impacts all arise from the "tragedy of the commons", where individual tour operators tend to 'grab' a little more of the market, whilst neglecting their contribution to the overall degrading of the global environment. For example, many traditional beach destinations are experiencing a loss of repeat visitors because of water pollution. Clearly, more environmentally-friendly practices are definitely in the interest of beach resort owners, operators and clients, and yet they are proving very difficult to put in place.

Another facet of the same general tragedy is a version of NIMBY (Not In My Back Yard). Whilst on holiday, a tourist is in someone else's backyard and it is very easy to turn a blind eye to the impact the holiday is having on other people's backyards. For example, tourism cruise ships cause enormous environmental damage, discarding many thousands of tons of untreated waste into the oceans of the world every day, but it usually takes the force of strong local opposition to halt a cruise tourism project (see Trinidad & Tobago example in section 4.1).

Biodiversity planners should work to ensure that all parts of the mass tourism industry, including airlines, airports, big amusement and theme parks, golf courses, and sports stadia, become more aware of the overall negative impact of their industry.

This communication strategy should have three components:
(i) a clear identification of the causal link between mass tourism and the decline and loss of biodiversity;
(ii) a clear demonstration that changes in operation will produce an improvement in this situation; and
(iii) access to relevant information to reduce the barriers to adoption of these changes.

This strategy can be implemented at all levels in the mass tourism sector (i.e. government, private sector, consumers).

It is important to realize that the solutions to the problems of mass tourism — a result of a "tyranny of small decisions"[46] can only be reversed by exactly the same mechanism. In other words, "an avalanche of small changes" is required, where the first few steps seem to be so small compared to the magnitude of the task. For example, hotel room requests to save water and energy by reducing the rate of washing of towels may have become clichéd but the global impact can now be measured in million of litres of water and tens of thousands of tons of carbon dioxide.

In analysing mass tourism impacts, both new tourism facilities and pre-existing ones must be considered. In the former case, the application of minimal environmental standards for siting of new tourism services and facilities is 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) can and should be demonstrated.

It is important to encourage the tourism sector to become more environmentally-friendly and to try to facilitate this process by providing the sector with information and contacts thereby overcoming the severe "inertia hurdle" which prevents us all from adopting environmental measures even when they are proven to be profitable. 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.

The transformation of the mass tourism industry described above requires a sustained effort and must be initiated at all levels of the industry. One starting point is to work from the "top down" through the development of "Codes of Ethics" or "Codes of Conduct" for different sectors of the tourism industry. Some examples of a typical draft of Tourist Code of Conduct are available over the internet[47].

Like any other economic activity, tourism needs to operate within a policy, legislative and regulatory framework, in order to maintain standards and rights. Environment and biodiversity, should form as important a part of this framework as should standards that are set for labour, investment, etc. A number of international environmental standards could potentially be applied to a large part of the tourism industry, for example, the International Organization for Standardisation (ISO) international voluntary ISO 14001 standard for environmental management systems (EMS) (a part of the ISO 14000 core series). The ISO 9000 series describes comprehensive quality management and quality assurance concepts and guidance, together with several models for external quality assurance requirements. The official ISO web site provides further information[48].

3.5.1 Examples of Greening Tourism: principles and practice

UNEP Principles: As mentioned in Section 2, the UNEP Tourism Programme has prepared UNEP Principles on Sustainable Tourism[21] which provide a good framework for more specific tourism standards and regulations. UNEP also hosts the Tour Operators Initiative for Sustainable Tourism Development and their website[49] hosts a number of useful case studies of the action adopted by members of the Initiative. The Initiative's best practice guidance includes:

- responsible use of natural resources such as land, soil, energy, and water;
- reducing, minimizing and preventing pollution and wastes including solid, liquid and air emissions;
- maintaining or enhancing biodiversity through the protection of plants, animals, ecosystems and sensitive areas;
- maintaining or enhancing cultural diversity through the protection of landscapes and cultural heritage;
- respecting the integrity of local cultures;
- cooperating with local communities and people;
- using local products and skills.

The Global Code of Ethics: The World Tourism Organisation[2] has launched the Global Code of Ethics for Tourism[50], which addresses environmental, social and economical principles of sustainable tourism. Articles 3, 5, and 9 in particular address the environmental and social aspects of sustainability. The text of the Code provides a useful resource for anyone drawing up similar agreements at a national or regional level.

Box 5. provides links to a selection of different Codes of Conduct and Charters which have developed by a range of different tourism associations.

Box 5. Links to Tourism Codes of Conduct and Charters

Associations

Code of Practice for Ecotourism Operators, *The Conservation Lands of Ontario*[51]

Code of Ethics for Tourists, *Tourism Industry Association of Canada* APEC/PATA[52]

Code for Sustainable Tourism, *Pacific Asia Travel Association (PATA) Foundation*[53]

Charter, *Association of Independent Tour Operators (AITO)*[54]

Ten Commandments on Eco-Tourism, *American Society of Travel Agents (ASTA)*[55]

Code of Practice for Ecotourism Operators, *Ecotourism Association of Australia*[56]

Code of Ethics, *Belize Eco-Tourism Association*[57]

NGOs

Code of Conduct, *Tourism Concern*, UK NGO[58]

The Himalayan Tourist Code, *British and Nepalese tour operators and NGOs*[59]

International Porter Protection Group, *Nepal*[60]

Survival Code, *UK NGO*[61]

Ecumenical Coalition on Third World Tourism, *Bangkok NGO*[62]

Tourism with Insight, *German NGO*[63]

Traveller's Code for Travelling Responsibly: Guidelines for Individuals, *Partners in Responsible Travel*[64]

Coral Reef Alliance: *For divers and dive operators*[65]

Source: Compiled by Anna Spenceley in "*Development of National Responsible Tourism Guidelines and Indicators for South Africa. Literature review: Principles, Codes, Guidelines, Indicators and Accreditation for Responsible & Sustainable Tourism*"[66].

3.6 Certification

A step further than voluntary codes of conduct are certification schemes, which set standards that tourism operators must meet before they can use the logo or name of the certification scheme. Good examples of certification schemes with a strong focus on biodiversity are the Marine Stewardship Council[67] and the Forest Stewardship Council[68]. These sites can provide useful guidance on the kinds of biodiversity components one might need to introduce a similar scheme for tourism operators.

There are now over 100 tourist certification schemes worldwide offering logos and labels but with no agreed set of standards. This has made it difficult for tourists to distinguish exactly what is being certified. This confusion leads to a lack of consumer demand for certified holidays, and less than one per cent of total tourism business has joined up to these schemes. The failure to establish clear brand recognition could seriously undermine the potential of certification to bring about sustainable tourism.

In a review of some of the largest tourism certification schemes, WWF recommended that:

- all certification schemes to collaborate in setting up an umbrella accreditation body to oversee the creation of universal standards and to increase credibility and comparability amongst schemes;
- the awarding of logos only to companies meeting or exceeding specific performance criteria rather than simply for making a commitment to improve or for implementing environmental management processes; and
- certification for sustainable performance (covering environmental, social and economic aspects) rather than only for environmental performance.

- Best Practice Guidance: Ensure that the objectives of a certification scheme are clearly stated.

- Ensure that any certification scheme provides tangible benefits to tourism providers and a means for tourists to choose 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 the 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.
- Ensure 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 certified audits.
- Make the certification programme recognisable and understandable by tourists. Use clear labelling of hotels and other tourism products and services which meet the certification criteria.

3.6.1 Examples of Certification in Practice

The Mohonk Agreement[69] is an agreed framework, including principles, for the certification of ecotourism and sustainable tourism, which was adopted unanimously at 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 for ecotourism and sustainable tourism certification programmes. 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 should form the basis of any ecotourism and sustainable certification programme. The development of a certification scheme should be a participatory, multistakeholder and multi-sectoral process, including representatives from local communities; tourism businesses, governments, non-governmental organisations, community-based organisations, and others.

National Ecotourism Accreditation Program (NEAP) in Australia[70] was launched by the Ecotourism Association of Australia in 1996, and is jointly run with the Australian Tour Operators Network. 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 crucial in helping ecotourism operators improve the profile of their products, which in turn has led to greater customer recognition and an edge in a competitive market.

The National Accreditation Commission for the Certification for Sustainable Tourism in Costa Rica issues a Certificate of Touristic Sustainability (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.

3.7 Financial Incentives and Funding for Sustainable Tourism

Policies, regulations and certificates may help the shift to more sustainable tourism but, ultimately, it is money that talks. Tourism is a fiercely competitive global business operating on knife-edge profit margins. As in many other areas of environmental protection, sustainable tourism requires the removal of perverse subsidies that reward environmentally degrading activities, and their replacement with positive incentives to undertake market activities which meet environmental (biodiversity management) objectives at the same time. (See parallel Biodiversity Planning Support Program guide to Financial Planning for Biodiversity Conservation[1].)

3.7.1 Examples of Financial Incentives

The Protected Areas Conservation Trust (PACT) in Belize is a classic example of tourism revenue being used for conservation. PACT, which began operations in 1996, 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.

The Paid Environmental Services Programme in Costa Rica pays compensation 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 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 enter national accounting systems. Costa Rica recognises PES for: 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 maintaining of natural landscapes for tourism and scientific purposes. PES is applied to private farms on condition that they maintain sustainable, environmentally-friendly activities, such as ecotourism. Native forests under private protection covered 3.8% of national territory.

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

4. Putting Policy Initiatives into Practice

Although the "top down" shift in policy, regulatory and incentive regimes is a necessary component of the transition to sustainable tourism and improved biodiversity management, it is not sufficient. Unless accompanied by actual changes in the way that traditional (mass) tourism operates "on the ground", then the policy will remain just so much "lip service", and biodiversity will continue to disappear.

The changes on the ground are not yet the "avalanche" that is needed, but there are sufficient examples to be "proof of concept" — the necessary changes can be put in place, all it takes is some commitment…and mutual support.

4.1. Examples of Policy in Practice

The Green Hotels Association is "*committed to encouraging, promoting and supporting ecological consciousness in the hospitality industry*"[71] and see Box 6.

Australia: Kingfisher Bay Resort & Village is located on Fraser Island, a World Heritage site located 250 km north of Brisbane. The site encompasses 65 hectares 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 not strictly an ecolodge due to its size, 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 storeys and are below the tree line; all timber used is from common, native species; the hotel centre complex is designed without air-conditioning; natural convection 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; and 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.

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.

Box 6. What are "Green" Hotels?

"Green" Hotels are properties whose management is eager to institute programs that save water and energy and reduce solid waste-and help Save Our Planet.

The "Green" Hotels Association's purpose is to bring together hotels interested in environmental issues, From adding "Drinking water served on request only" to the menu to installing new HVAC systems, and with every measure in between, "Green" Hotels Association encourages, promotes and supports the "greening" of the lodging industry.

Hotel managers, chief engineers and executive housekeepers do not have the time to search out all the water-and energy-saving ideas that apply to the hospitality industry. So, "Green" Hotels Association(r) has devoted itself to that purpose. On joining, members receive a comprehensive list of suggestions and ideas on how to reduce the hotel's impact on our environment.

"Green" Hotels Association offers a TOWEL RACK HANGER and a SHEET CHANGING CARD which ask guests to consider using their linens more than once. These gentle reminders, now found in thousands of hotel guest bathrooms, can save 5 percent on utilities* and at least 70 percent of guests will probably participate.

The "GREEN" CATALOG: "Green" Hotels Association researched energy and water-saving products, and chose the best of the choices for hotels for our CATALOG OF ENVIRONMENTAL PRODUCTS FOR THE LODGING INDUSTRY. The catalog contains such water-saving devices as a toilet-tank fill diverter, which saves about 3/4 gallon of water per flush, is invisible to the guest, does not affect the flush in any way, and costs less than $1! Hair and skin care dispensers save money and offer guests shampoo and soap at the push of a button. The guestroom recycler basket is a beautiful, sturdy open-diamond pattern, and is designed for long service.

We urge all hoteliers interested in our environment to take advantage of "GREEN" HOTELS ASSOCIATION MEMBERSHIP immediately. Benefits to hotels include our "Membership Conservation Guidelines and Ideas", a bi-monthly newsletter packed with practical, smart ideas, heavy media publicity, an Internet listing and public identification as a "Green" Hotel via pole and front desk flags. Hotels can join for as little as $50!

We welcome worldwide membership. For further information contact us today![71]

Examples from Individual Hotels:

- A Toronto hotel is recycling stained tablecloths into napkins, chef's aprons and neckties.
- Bicycles are being loaned or rented to guests.
- A Florida hotel bought a mulcher to chop up their garden clippings and create their own mulch. The mulcher paid for itself in three months.
- A Wisconsin B&B has installed beautiful blue floor tiles made from recycled automobile windshields.
- Chief engineers have found that toilet tank fill diverters in older toilets save about 3/4 of a gallon of water per flush.
- A Pennsylvania property has a 400 sq. ft. garden and produces organically-grown vegetables for its restaurant.
- Don't throw anything out of your car windows, and don't let any of your passengers throw anything out either.
- Install dimmers on light switches and save electricity. We don't always need full lighting.
- Turn off the lights and TV, and close the drapes when you leave your hotel room.
- Use about half or two-thirds of the amount of detergent recommended, and then adjust with each load.
- Direct rainwater downspouts into gardens rather than into the street so that plantings.
- Use of pesticides and all lawn and garden chemicals should be kept to the absolute minimum.

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. Wastewater 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 it saves 70 m^3 of water and US$70 per day in the high season. By placing cards in the bathroom, guests are invited to save water and reuse towels, and this is estimated that laundry loads have been reduced by 25 percent.

Trinidad&Tobago: Over the last five years, cruise ship tourism has grown dramatically while ecotourism continues to be specially targeted for development, given the rich inventory of natural and cultural assets in this small island developing state (SIDS). Government plans were in an advanced state for the establishment of a large industrial port for, among other things, cruise ship tourism, a development which was seen by the local community to have serious consequences for the marine ecology and a proposed national park in the area. The local community organised themselves into a pressure group called Stakeholders Against Destruction (SAD) for Toco and demanded meaningful public participation in the process. The Government, forced into observing its own strategy of public participation in policy development, arranged for a genuine process of public consultation. SAD convinced the Government that lower-intensity ecotourism was the better option for the region and for biodiversity conservation. The port project was officially cancelled by Cabinet decision in October 2000 and the associated Land Acquisition Orders rescinded the following month.

Canada: Several large hotels have been applying a series of environmentally-friendly practices. for example, the Skydome Hotel in Toronto, placed recycling boxes for glass and cans in just 70 rooms, and collected 58,000 cans and 12,000

bottles in a single year. 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 %.

UK: On the island of Jersey, at five of the island's hotels, guests can rent a Toyota RAV4 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[72].

Australia: The 19-level Novotel at Homebush Bay in Sydney[73] 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 m^2 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.

Oregon, USA: 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.

Florida,USA: 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.

Arkansas and Ohio: The Meadowcreek Project conducted studies of the food systems of Hendrix College in Conway, Arkansas, and Oberlin College in Ohio. Both institutions are served by nationwide food-brokering networks that are not sustainable and that tend to undermine regional economies. In the Hendrix study, students discovered that the college was buying only 9% of its food within the state. Beef came from Amarillo, Texas, rice from Mississippi. Yet the college is located in a cattle and rice-farming region.

Students uncovered ample opportunities for the institutions to expand purchases of locally grown products. Not infrequently, these are fresher, less likely to be contaminated with chemicals, and, not surprisingly, they are cheaper because shipping costs are lower. Both colleges responded cooperatively in the implementation of plans to increase local buying. In the Hendrix case, in-state purchases doubled in the year following the study.

The willingness of both colleges to support local economies helps to bridge the gap between the institutions and their locality in a way no public relations campaign could have done. (This situation applies equally well to tourism projects)

4.2 Waste Management

Management of waste is a major environmental problem globally in all aspects of life, including tourism. Because tourism, especially mass tourism, creates high densities of people, or brings people to fragile natural areas with limited assimilative capacity, there are particular problems of waste management associated with this sector. A basic management aim of a tourism operation should be to minimise waste generation and to minimize the impact of the disposal of waste that is created. A key principle of successful waste management is "separation" — mixed wastes become increasingly harder to reuse or recycle.

The fundamental principles of waste management are well known: "Reduce, Replace, Reuse and Recycle". Examples of each are given below.

4.2.1 Examples of Waste Management Practices

Reduce: Canada

The Hotel Beausejour in New Brunswick saved 100,000 litres of water per year by putting sand-filled bottles in toilet tanks to reduce flush volumes in one quarter of its rooms. In order to save water, use dry toilets or pit latrines, where conditions are suitable.

Replace: Canada

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

Reuse: General

Reuse both grey (sink) and black (toilet) wastewater 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 order to re-use both grey and black waters, separate drainage lines and septic systems must be installed. Whenever possible, use natural or constructed wetlands treatment systems in treating wastewater

Reuse: India

At the Taj Jungle Lodge at Thekaddi, wastewater is discharged into the subsurface root zone of hardy plants — micro-organisms in the root rhizosphere utilise the organic material in the wastewater.

Reuse: St. John, US Virgin Islands:

Nearly all building materials at the Harmony Resort are made from the waste stream of other industries, such as sawdust and plastic. The resort is now attempting to “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.

Recycle: General

Biodegradable materials are a special case of recycle, working at the level of natural ecosystems rather than human systems. Almost all organic materials of natural origin can be recyled as compost and need not enter the general waste disposal chain.

Recycle: Thailand

The Phuket Yacht Club donates its 400 litres of organic waste per day to a local pig farm.

Recycle: Australia

At Great Keppel Island Resort, paper, cardboard, garden waste, sewage sludge and some food scraps (not oils, fats or meats) are shredded, composted for several weeks, and then fed to the resortÕs worm farm. Within several months, the worms produce a rich compost that is used in the resortÕs gardens, instead of fertiliser. Also in Australia, the Rainforest Habitat, Port Douglas has set up a worm farm, which receives wood scraps, leaf litter and animal droppings from the project. The worms digest the material, creating excellent compost. The worms are fed to wildlife in the sanctuary. The worm farm produces no odour, is easy to maintain, and reduces disposal costs[73].

Recycle: Sweden

The Sanga Saby Conference & Study Centre has set up a waste separation programme that ensures the separation of paper, aluminum, organic waste from kitchen and garden, glass, batteries, and other hazardous waste substances. A wastewater 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 is then purified by oxygenation using air compressors. At the final precipitation stage PAX21 (a substance free from chloride aluminum) is added to sink sludge. Residues are destroyed by bacteria before water is transported to the municipal sewage treatment plant. Wastewater from the kitchen goes through a separate cycle where fats enter a separating tank before reaching the sewage plant for further treatment[74].

4.3 Education and Training

Education and training are vital for enhancing the links between biodiversity planning and tourism. Appropriate environmental education and awareness-building among local communities, the private sector, tourists and government will help 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 important to increase public awareness of environmental issues through TV and radio programmes, magazines and posters. Consumer education campaigns can support this process. Governments can further promote environmental and social goals through general awareness-building campaigns targeted at 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 should be encouraged to carry out continually training programmes among their staff (at all levels), striving to teach them sound environmental practices.

Best Practice Guidance

- Biodiversity planners should, with tourism operators, prepare tourists before they arrive at sensitive locations, by providing introductory information, environmental guidelines, etc. on the people and ecosystems to be visited in pre-departure packages (including use of the Internet), en route briefing and even on arrival.
- Similarly, biodiversity planners should ensure that they provide appropriate "biodiversity" materials for use in public sector environmental education and ecological awareness (including tourists, the tourist industry and the local communities).
- Help to prepare tour guides working 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 help 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 for local cultures).
- Avoid introduction of alien species, both vegetable and animal, by informing tourists of the severe threat this creates for protected areas and by performing routine inspections.
- Carry out regular monitoring of impacts, using local communities and tour operators where appropriate.
- 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.

4.3.1 Examples of Education and Training

Costa Rica: Recently set up by the National Institute of Biodiversity (INBio), the INBioparque[75] is a kind of "Disneyworld" for Costa Rica's biodiversity, providing an educational park to introduce people to the national parks and biodiversity of Costa Rica. It received the National Tourism Chamber "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's goal is: "bioliteracy", a life-long process in educating and changing peoples attitudes and behaviour towards biodiversity. INBioparque offers nature trails, a natural lagoon to observe native wetland plants and animals, and interactive exhibition halls with multimedia and audiovisuals.

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.

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.

Chile*:* Rangers of the Chilean National System of Protected Areas recently began 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.

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

Thailand*:* The government is carrying out a "Magic Eyes Anti-littering Campaign", which has greatly improved litter control in that country[72].

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

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[74].

South Africa*:* The Ngala Private Game Reserve has provided bursaries for local individuals to finance academic and vocational training in a range of subjects. Students financed by Ngala's Africa Foundation are required to return to their community for up to two years after their training, in order to assist their community or give motivational talks. The Africa Foundation[76] emphasises environmental and health education in the local community. It hosts donor funded Bush Schools and Conservation Lessons for pupils from local junior schools. Both schemes are designed to fit in with local natural science school curriculums, and the Bush Schools entail a 3-day, 2-night program while the Conservation Lessons take place over one day. The health education has focused on HIV/AIDS awareness, and has financed a group of youths from the local community of Welverdiend to write, produce, and perform an informative play that reflected local issues and concerns[77].

5. Developing Ecotourism

Ecotourism is that section of sustainable tourism which is related to visitation of relatively undisturbed natural areas, including protected areas. It has been estimated that 15-20 % of all international tourism might be classified as ecotourism. The 15% per year rate of growth of ecotourism and other nature-based tourism activities is higher than most other tourism segments[78].

By definition, ecotourism is a tool for conservation of natural and cultural resources (including biodiversity) and an instrument for sustainable development for local communities, especially in rural areas. There is no absolute distinction between ecotourism and other forms of tourism; rather the different types of tourism form part of a continuum.

The challenge to biodiversity and tourism planners is to match the appropriate type of tourism with the aspirations of stakeholders and assimilative capacity of land, culture and communities. In reality, many tourists combine ecotourism with conventional tourism activities. Creating linkages between types of tourism can introduce and attract more conservative tourists to ecotourism practices.

Biodiversity planners should focus on ecotourism as an important ally in meeting the three main objectives of the CBD. 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.

The first task for biodiversity planners and protected area managers considering developing an ecotourism venture should be to develop an inventory of ecotourism attractions found in the proposed area. This will not be identical to a purely biological inventory — a biodiversity hotspot may not necessarily be a good or viable ecotourism prospect.

Ecotourism attractions in a potential project area may be divided into three categories:
(i) focal or flagship attractions (which may provide the main reason for visiting an area),
(ii) complementary attractions (which give added value to the area and encourage a longer stay for the tourist), and;
(iii) 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[79].

An ecotourism inventory is not equivalent to an exhaustive scientific inventory of all the biodiversity resources in a given region. Rather, it is a selection of those most attractive, or "marketable" elements of the biodiversity resource base and other natural and cultural components of the area. The inventory should be the basis of promotional activities, because ultimately, it will contribute to conserving the whole environment.

Box 6. Three Views of Ecoturism in a Biodiversity Hotspot — Tambopata, Peru

These three summaries and attached articles illustrate just how tough it is to generate sustainable tourism projects that meet all three of the Convention on Biological Diversity's three major objectives.

Tambopata: Community Owned Venture Redefines Ecotourism[80]

In early 1996, most of the adult members of the Eseieja Native Community of Tambopata, Peru gathered to discuss and unanimously sign a 20-year contract with a private Peruvian tour company called Rainforest Expeditions to develop an ecotour operation within community territory, giving birth to the Eseieja Ecotourism Project. It was the first time in the community's 20-year history that any kind of meeting had managed to exceed the quorum necessary to make it official. Almost two years later, this good omen is being proven correct by the project's first product, Posada Amazonas Lodge, a 23-bedroom ecolodge that opened March 1, 1998. The lodge is being built on the community's largest tract of intact rain forest

and is directly adjacent to the pristine, Connecticut-sized, Tambopata Candamo Reserved Zone in south-eastern Amazonian Peru. Posada Amazonas not only hopes to become a first class lodge and nature tour destination but also a successful pilot in community and private enterprise partnerships. Working to develop a profitable ecotourism product, it would effectively catalyse the conservation of natural and wildlife resources. The ecotourism product being shaped at Posada Amazonas will have to compete in the Tambopata ecotourism industry which sells similar two- to four-day products to over 10,000 nature tourists yearly.

Project Tambopata: Tourism Development and the Status of Neotropical Lowland Wildlife in Tambopata, South-eastern Peru: Recommendations for Tourism and Conservation[81]
This report presents evidence that certain species of mammals and amphibians are strongly influenced by the presence of tourists and trail infrastructure in their habitat. The principal ecological mechanisms underlying the impact are not clear, but include:

1) shyness due to past hunting pressure;

2) habituation and intrinsic ecological resistance to disturbance;

3) variations in predation pressure;

4) inter-specific competition for resources; and

5) changes in the micro-structure of the habitat which either improves or diminishes the successful search for prey, for herpetofauna species.

Some of these impacted species, particularly mammals, are positively influenced by tourism, although the report warns that it would be wrong to conclude that this is a good thing and should be encouraged, since ecological "knock-on effects, such as changes in plant pollinators and dispersers are difficult to predict". If the variations between tourist and control areas, in terms of the abundance of wildlife, are to be minimised then a prudent first step would be to reduce trail-use The report suggests a level around 696 people per year would be appropriate. The report advises that trail-use intensity should be capped at this average figure at all lodges for the time being and that an Adaptive Traffic Management Strategy be implemented thereafter to adjust this figure up or down as is deemed appropriate[82].

Yu, D. W., T. Hendrickson, and A. Castillo. (1996) "*Ecotourism and conservation in Amazonian Peru: the interplay of national policies and local interests.*"[83]
Abstract: Two rainforest lodges (Cuzco-Amazonico Lodge and Explorer's Lodge, both part of Tambopata) dating from the 1970s and located in south-eastern Amazonian Peru have been held up as early success stories in tourism-driven conservation, but a more recent assessment reveals that both lodges have since lost parts of their rainforest reserves to encroachment. We suggest that the major reason for failure is because the national land laws in effect at the time did not allow titling of land in the rainforest. Recently, Peru has instituted a process for titling land in the rainforest, and we present a case history of how one lodge has had some success in using the new land tenure laws to create a rainforest reserve. We observe that the very attempt to buy land for purposes of conservation can promote encroachment and that the lodge's current agreement with its neighbours to provide a school in exchange for a promise of non-encroachment is fraught with moral hazards. Thus, we argue that the primary level at which tourism can promote conservation is at the national level. Finally, we note that to the extent that ecotourism can be used as a model for sustainable development, the experiences of the tourist lodges presented here suggest that a major and perhaps fatal flaw in many sustainable development schemes is the need to consistently apply a high degree of managerial expertise.

5.1 Examples of Ecotourism in Practice

Costa Rica has earned a reputation as a leading ecotourism destination, 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 contributed to conserving Costa Rica's biodiversity by providing a viable alternative land use to forest clearance, etc.

Cooprena R.L[84] is a Costa Rican organization created to organize, structure, design and promote tourism products of its members. These ecotourism projects constitute an attempt to generate new alternatives in the diversification beyond agriculture of the cooperative product lines as well as to ensure the rational exploitation and sustainable use of natural resources, allowing members of Cooprena to supplement their agricultural income and improve their standard of living through the development of non-traditional tourism products. Each cooperative is formed by low-income rural families living a modest lifestyle. They share a common goal: exploring new and sustainable land uses, while generating economic resources that protect the environment — their home. Six projects, covering diverse areas of the country, are managed by the cooperatives and agriculture organizations, including Catarata below.

La Catarata Ecotourism Lodge[85] is run by the Association for the Enviroment and sustainable development of Zeta Trece Community (ASPROADES) in La Fortuna. The association was formed by five farming families who decided to start a tourist initiative to make sustainable use of the natural resources and beauty of the region like the Arenal Volcano, the most active volcano in Costa Rica. When agricultural product prices fell in the mid-1990s, they decided to create an association for environmental protection and sustainable development of their region. The project includes eight cabins for ecotourism, horse riding, 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. The lodge also offers day trips to an agroecotouristic farm, Coope San Juan, visiting their biological reserve, with ancient trees, and the possibility to see green macaws among a wide variety of birds and animals. The visit continues to the organic plantations of bananas, pineapple, manioc, and other roots of the cooperative.

The Monteverde Cloud Forest Reserve[86] is a 26,000-acre private non-profit reserve (not a national park) administered by the Tropical Science Centre. Last year it attracted 50,000 tourists. It supports itself through donations and a US$8 entrance fee. Down the hill, the 42,500-acre Children's Eternal Rainforest was purchased with money contributed by schoolchildren and adults from 44 countries. Even the local high school runs its own 775-acre refuge: the Santa Elena High School Cloud Forest Reserve, whose income helps support the school, and whose biodiversity teaches students about the environment. There are six distinct ecological zones in this reserve. It is called a cloud forest rather than a rain forest because of its altitude: the clouds go right through the forest. Monteverde continues to develop new tourist products such as the Sky Walk and Sky Trek (suspended bridges in the forest canopy).

The Ecological Farm: Until a few years ago, Jorge Rodriguez oversaw this farm whose climate was too wet for vegetables, and whose terrain was so steep the cattle kept falling into ravines and breaking their necks. But he noticed its proximity to Monteverde's hotels and wondered if tourists might pay to visit the farm and see its abundant wildlife, such as the endangered bell bird, with its clang-like call that can be heard for half a mile. With the absentee owner's approval, Rodriguez put in trails and a parking lot, and renamed it the Ecological Farm. "Now for the first time," says Rodriguez, "The farm is making a little profit, enough to maintain the paths and sustain my family." However, some people worry that Monteverde is being tarnished by its unforeseen popularity. Land prices have spiralled, burglaries and petty theft have shot up. Too many hotels have opened — 30 in all – and several are expected to fail.

"It's easy to talk about eco-tourism, and sustainable development," says Huber Barquero, the leading investor in a failing hotel located outside of town called the EcoVerde Lodge. "But the reality is very difficult. For the first year, we've had less than four percent occupancy."[87]

Kruger National Park, South Africa*:* Kruger National Park (KNP) covers around two million hectares of mostly bushveld and is the most celebrated and most visited of South Africa's protected areas. Community development forums are carried out regularly between the Social Ecology Department of South African National Parks (SANP) and neighbouring communities. Products from local rural entrepreneurs and black empowerment companies are giving preferential treatment. Also encouraged is the facilitation of entrepreneurial activities that 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 within the context of the KNP Management Plan. A number of community associations have been formed, and economic partnerships and training opportunities in ecotoursim are being developed.

Hato Pinero, Venezuela*:* Hato Pinero, a private reserve in the Llanos, originally a cattle ranch, has become a well known destination for international ecotourists especially US bird watchers. The ranch owners decided to conserve a major proportion of the land in its natural condition, and converted some of the ranch facilities into lodging facilities, so that ecotourism has become a prime source of income generating many additional jobs, and complementing the traditional cattle raising activities.

Rocktail Bay, South Africa*:* The local community neighbouring Rocktail Bay benefits from its presence by owning shares in both the lodge owning and lodge operating companies. Therefore, the benefits are dependent upon tourism revenue and the proportional size of their equity.

The community receives dividends from its shares in the lodge *owning* company on a quarterly basis from lease payments paid by Wilderness Safaris, and also from the lodge *operating* company when operational profits are sufficient. Wilderness Safaris runs Rocktail Bay as a small, luxury coastal lodge with opportunity for fishing, diving, snorkelling, sea turtle tours and beach activities. The presence of Rocktail Bay contributes financially towards biodiversity conservation in the provincial nature reserves through its lease payments to the commercial arm of KZNNCS. WS also finances loggerhead and leatherback turtle monitoring along the coastline. Conducted by the conservation authority for many years, turtle monitoring would have been restricted to a minimum had it not been for WS' donations.

Guests at Rocktail Bay are encouraged to 'adopt' a turtle, and thereby assist in funding the conservation authority's satellite tracking of adult turtles. 'Hippo tours' were initiated for Rocktail Bay guests, where members of the local community are used to guide guests to where hippos are living around their village. Previously, the hippos had been considered a great pest to the villagers. Now they are tolerated because the tours generate a fixed monthly fee for the community, and money per tourist if hippos are seen. This initiative has benefits including increasing awareness of the value of biodiversity conservation in rural areas by generating a regular income for local guides[88].

Sian Ka'an, Mexico*:* Soon after Sian Ka'an was declared both a Biosphere Reserve and a World Heritage Area by UNESCO, an NGO called Amigos de Sian Ka'an (Friends of Sian Ka'an) was set up, to collaborate with the Mexican government on the conservation and sustainable use of the natural resources of the area, which include 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.

Ajusco Mountain, Mexico*:* Parque San Nicolas Totolapan[89] was created in 1998 on the lower slopes of the Ajusco Mountain, just south of Mexico City. The park is an experiment in Mexico's growing ecotourism trade. Two thousand visitors arrive each week, almost half of them cyclists.

5.2 Involvement of Local Communities

Nature-based tourism is, with few exceptions, still a complex mix of natural, social and cultural components, not just wilderness. Whenever tourism takes place in inhabited regions, local communities should always be active participants in the process. In all cases, it should be the community's own decision to actively participate, or not, in the tourism process.

Culture shock (in both directions: from tourist to community, and from community to tourist) should be avoided at all costs and appropriate sociological expertise should be used to assess this during project formulation.

Best Practice Guidance

- Stakeholders should be involved in all aspects of project design.
- Ecotourism projects should only be approved with the full support of local stakeholders, i.e. following full consultation and participation in both design and profit-sharing.
- Technical, planning, managerial, legal and financial assistance may be required at the beginning of ecotourism projects. Government agencies can play the role of "honest broker" between local communities and private operators.
- Plans for tourism projects should include training and capacity building to increase the role of local communities and should allow for career development.
- Diversify the socio-economic benefits associated with the project as much as possible — this will increase stakeholder "buy-in" and reduce market sensitivity.

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 both directly and indirectly (livelihood impacts). This can be done by delegating tourism rights to the 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[90].

It is important to recognize that the goals and objectives of a tourism project may be as complex as the tourism experience. Different stakeholders will have different goals and these will change over time. Remember that a local community can be thought of as "*a group of people who shake hands with each other in the morning, and then talk behind each others' backs in the afternoon*"! A mixed set of development goals will be required to involve and reward all stakeholders; maximizing cash returns or providing low-skill jobs with no opportunities for career development may not suffice to generate a truly sustainable product.

Recent research shows that growing numbers of tourists would like more meaningful contact with local communities, including informative interactions. Meeting this demand could provide low-cost economic opportunities for local people, creating a more balanced and sustainable tourism product. Although most local communities show a strong sense of engagement with the land around them, there is no guarantee that this will automatically agree with the goals of biodiversity planners. Project development will often require a long negotiation process and the creation of strong binding agreements on agreed goals and actions. There are many examples of nature-based tourism projects failing after the initial enthusiasm wanes, or long-term expectations are not met.

5.2.1 Examples of Local Community Involvement

Parks Canada: Recently, Canadian aboriginal people have played an important role collaborating with Parks Canada in the establishment of new protected areas, particularly in the north. 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. Approximately one-third of Canada's 39 National Parks have cooperative management boards involving aboriginals. Aboriginal communities are also important service providers to protected areas visitors. Through jointly developed tourism strategies, there are many opportunities for Parks Canada and Aboriginal people to promote authentic visitor experiences. Aboriginal people also participate in environmental assessments and review panels, and 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.

The Lerato Case, 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. These assessments identified many problems, such as lack of clarity on the size and exclusivity of proposed use areas; lack of proposals for joint management or local Training; risk of environmental damage; and Lerato's *"domineering attitude"*. The Conservancy group developed a counter-proposal of the kind of issues they would like to see reflected in an agreement, which reflects the benefits the communities seek from tourism on their land, and better addresses negative impacts. Main themes were: major community concerns about issues on control, partnership, land-use, environmental management, and securing their future[90].

The Bergsig Negotiations, 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 and finally reached the point where the company demanded a "yes or a no". The community decided against it. The prospect of high cash returns was outweighed, in the eyes of the community, by a number of disadvantages, namely high risk, alienating people and livestock from a much larger land area, and a much longer lease agreement[90].

Seychelles Rules: 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.

Cofan Community, 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 of Amazonian Indians. The area was relatively isolated until the first foreign tourists came to the area in the early 1980s, introducing the first shifts towards a market economy in the region and altering the social structure. In response to this, the Cofan people explored several new marketing opportunities, but decided that only eco-tourism could provide adequate sustainable income. Initially, canoe trips were offered to backpackers hiking in the area. After it was observed that the cultural aspects of the community appealed to visitors as much as the natural features of the area, anthropological and ethnic components were included in the planning of the tours.

Slowly, the operation expanded. Simple tourist cabins, as well as a small ethnic "museum", were built alongside the Aguarico River about one mile further downstream and on the opposite bank from the Indian village. A strict zoning scheme has been set up, including 60-km of nature trails for tourists (with walks guided by the local Cofanes), and subsistence hunting areas used solely by the local community. Rare and attractive wildlife species (eg. macaws, hawks, eagles, waterbirds, wild felines) are protected as the main assets of the ecotourism operation. The tourism activity is managed directly by the local council, which administers the community funds. In 1999, the total revenues of the project were US$120,000[78].

KwaZulu Natal, South Africa: The Simunye Zulu Natural Heritage Site (KwaZulu Natal) has developed an ecotourism project which attempts to strengthen local traditions through the active participation of local communities in all aspects of the project. The project has built a simple but comfortable lodge close to the village. African

Tracks[91] safaris promote the lodge as follows: "Simunye Zulu Lodge, in the hills of central Zululand. Here you will be accommodated in traditional Zulu fashion but with all modern comforts. Guests are encouraged to practice the traditions and customs of the Zulus during their stay, and thus learn about them firsthand, with fun and laughter guaranteed. Activities include Zulu dancing, walks in the bush with a Zulu witch-doctor, horse-riding, traditional Zulu games and sundowners around a fire on the river bank. A local guide and host is always available to answer any questions you have and to give you a full account of the history of the Zulu people and their land, Zululand". A video of the project is available on the internet[91].

Sangomas (*isangoma)* are traditional healers in Southern Africa who practice divination and complement holistic health care through the administration of herbal remedies and treatment. The principal sangoma, who provides excursions and performances for Wilderness Safaris guests at Rocktail Bay and Ndumo lodge in Maputaland, runs a successful practice and training school for aspiring sangomas. The money earned from the performances for tourist guests has allowed the Sangoma Training School to take on financially disadvantaged students, and to speed up training by funding materials for key ceremonies. It has also allowed the principal Sangoma to employ people to work in the fields, and to initiate the development of a small shop. Therefore this cultural attraction has benefited the livelihoods of local people[88].

6. End piece

This report has surveyed just a small part of the global shift towards a greener, more sustainable tourism industry that may eventually become a net contributor to the three objectives of the Convention on Biological Diversity — conservation, sustainable use and equitable sharing of the benefits arising from biodiversity. We hope that the guidance we have highlighted here will assist biodiversity planners to better integrate their activities with those of the tourism sector. Future versions of the report will continue to add more links to best practice and resources that biodiversity planners can use.

For more details about future work in this project,
please contact: David Duthie
UNEP/GEF Biodiversity Enabling Activities,
PO Box 30552, Nairobi, Kenya.
Tel: +254-2-623717;
Fax: +254-2-624268;
e-mail: david.duthie@unep.org

Endnotes

1. http://www.undp.org/bpsp/thematics
2. World Tourism Organisation (WTO): http://www.world-tourism.org/
3. Convention on Biodiversity : http://www.biodiv.org/
4. UNEP/CBD/COP/5/20:Sustainable use including tourism: http://www.biodiv.org/doc/meeting.asp?lg=0&wg=cop-05
5. http://www.biodiv.org/decisions/default.asp?lg=0&dec=V/25
6. http://www.biodiv.org/doc/meetings/sbstta/sbstta-04/official/sbstta-04-11-en.pdf
7. UNEP/CBD/SBSTTA/4/Inf.9: Sustainable tourism as a development option: http://www.biodiv.org/doc/meetings/sbstta/sbstta-04/information/sbstta-04-inf-09-en.pdf
8. Recommendation IV/7Development of approaches and practices for the sustainable use of biological resources, including tourism: http://www.biodiv.org/recommendations/default.asp?lg=0&m=sbstta-04&r=07
9. UNEP/CBD/COP/4/Inf.21 Biological diversity and sustainable tourism: preparation of global guidelines: http://www.biodiv.org/doc/meetings/cop/cop-04/information/cop-04-inf-21-en.pdf
10. Decision IV/15, paras 14:16: http://www.biodiv.org/decisions/default.asp?lg=0&m=cop-04&d=15
11. Decision IV/16, Annex II: http://www.biodiv.org/decisions/default.asp?lg=0&m=cop-04&d=16
12. UNEP/CBD/SBSTTA/5/13 Sustainable use of the components of biological diversity: identification of sectoral activities that could adopt…: http://www.biodiv.org/doc/meetings/sbstta/sbstta-05/official/sbstta-05-13-en.doc
13. UNEP/CBD/COP/5/20:Sustainable use including tourism: http://www.biodiv.org/doc/meeting.asp?lg=0&wg=cop-05
14. http://www.biodiv.org/decisions/default.asp?lg=0&dec=V/25
15. Compilation and analysis of existing Codes, Guidelines: http://www.biodiv.org/doc/meetings/wstour/wstour-1/wstour-01-inf-01-en.pdf
16. Draft International Guidelines for activities: see accompanying CD file: CBD Tourism workshop.pdf
17. World Tourism Organisation (WTO): http://www.world-tourism.org/
18. UNESCO: http://www.unesco.org/
19. The Ecotourism Society: http://www.ecotourism.org/
20. Sustainable Tourism: http://www.uneptie.org/
21. UNEP Principles on Sustainable Tourism: http://www.uneptie.org/pc/tourism/home.htm
22. The National Commission for the Environment (CONAMA) (pp.10): http://www.conama.cl/
23. CONABIO: http://www.conabio.gob.mx/
24. INBio: http://www.inbio.ac.cr/es/default.html
25. "Two Way Track Biodiversity Conservation and Ecotourism (pp.1): http://ww.ea.gov.au/biodiversitypublications/series/paper5/index.html
26. http://www.canadatourism.com/en/ctc/ctc_index.cfm or contact: Pam Wight & Associates (pamwight@superiway.net)
27. http://www.crctourism.com.au
28. Glow-worm tourism: http://www.crctourism.com.au/projects/projectinfo.asp?projId=41012

29. Pro-poor tourism: http://www.propoortourism.org.uk/
30. Costa Rica Case Study: accompanying CD file: Case Studies/Costa Rica (Tourism).pdf
31. http://www.ecotour.org/ecotour.htm
32. Earthwatch Institute: http://www.earthwatch.org/
33. Discovery Initiatives : http://www.discoveryinitiatives.com/
34. Kunene: http://nacobta.com.na/en/Regions/KU-1.html
35. Namibia Community Based Tourism Association (NACOBTA): http://www.nacobta.com.na/en/Index.htm
36. Netherlands Committee for IUCN: http://www.nciucn.nl/
37. (*Ceballos-Lascurain, 1997b*)- incomplete reference
38. Great Barrier Marine Park and World Heritage Area: http://www.gbrmpa.gov.au/
39. Warnken, J. and Buckley, R.C. 1995. Triggering EIA in Queensland: a decade of tourism development. Environmental Policy and Law, 25: 340-347 (please change the referral in the text page 19 also)
40. http://www.undp.org/bpsp/thematics
41. Ecotourism resort on Green Island: See accompanying CD file: Green Island.pdf
42. http://www.ecotourism.org/textfiles/etspaper.txt
43. Environmental assessiment of small hotels : see accompanying CD file: Eritrea Small Hotel.pdf
44. PAP/RAC (1997) Guidelines for Carrying Capacity Assessment of Tourism in Mediterranean Coastal Areas. PAP-9/1997/G.1 Split, Priority Actions Programme Regional Centre Activity. For an example of the LAC concept applied to defining use levels in the context of North American protected areas. For more information on LAC and VIM see the following references : Stankey, G.H. et al. 1985; Graefe, A.R., F.R. Kuss, and J.J. Vaske. 1990.
45. http://www.tropiceco.com/html/huaorani.html
46. Odum, W. E. (1982). “Environmental degradation and the tyranny of small decisions.” BioScience 32(9): 728-729.
47. Tourist Code of Conduct: (see accompanying CD file: Draft code of Conduct.pdf)
48. http://www.iso.ch
49. Our Operators Initiative for Sustainable Tourism Development: http://www.uneptie.org/pc/tourism/industry/toi-cases.htm
50. Global Code of Ethics for Tourism: see accompanying CD file: WTO Code of Conduct.pdf
51. http://www.greenontario.org/strategy/tools.html
52. http://www.tiac-aitc.ca/english/index.asp
53. Code for Sustainable Tourism: http://www.pata.org/
54. Charter: http://www.aito.co.uk/home/quality.html
55. Ten Commandments on Ecotourism: http://www.astanet.com/travel/ecotravel.asp
56. Code of Practice for Ecotourism Operators: http://lorenz.mur.csu.edu.au/ecotour/EAACoP.html
57. Code of Ethics: http://www.belizenet.com/beta/ethics.html
58. Code of Conduct: http://www.tourismconcern.org.uk/
59. The Himalayan Tourist Code: http://www.tiac-aitc.ca/english/index.asp
60. International Porter Protection Group: http://www.tiac-aitc.ca/english/index.asp

61. Survival Code : http://www.tiac-aitc.ca/english/index.asp
62. Ecumenical Coalition on Third World Tourism: http://www.tiac-aitc.ca/english/index.asp
63. Tourism with Insight : http://www.tiac-aitc.ca/english/index.asp
64. Traveller's Code for Travelling Responsibly (http://www.pirt.org/travelcode.html
65. Coral Reef Alliance :http://www.coralreefalliance.org/
66. Spenceley A. (2001). Development of National Responsible Tourism Guidelines and Indicators for South Africa. Literature review: Principles, Codes, Guidelines, Indicators and Accreditation for Responsible & Sustainable Tourism. A Report to the Department of Environmental Affairs and Tourism, and the Department for International Development (UK).
67. Marine Stewardship Council: http://www.msc.org/
68. Forest Stewardship Council: http://www.fsc-uk.info/
69. Mohonk Agreement: Contact: gchester@ghd.com
70. www.ecotourism.org.au/
71. Green Hotels Association: http://www.greenhotels.com/index.html
72. Sweeting, James E.N., Aaron G. Bruner, and Amy B. Rosenfeld, The Green Host Effect: An Integrated Approach To Sustainable Tourism and Resort Development. Washington, D.C.: Conservation International, 1999.
73. www.oca.nsw.gov.au/
74. Environmental Good Practice in Hotels, Case Studies form the International Hotel and Restaurant Association Environmental Award, UNEP/IHRA.1997.
75. INBioparque: http://www.inbio.ac.cr/inbioparque/
76. Africa Foundation: http://www.africafoundation.org/
77. Spenceley, A. (2001) Sustainability of tourism with respect to neighbouring community impacts: Case Study of the Welvediend Community, South Africa, Institute of Natural Resources Occasional Paper No. 191
80. Tambopata: see accompanying CD file: Tambapota1.pdf
81. Project Tambopata: see accompanying CD file: Tambapota2.pdf
82. summary by David Duthie
83. Ecotourism and conservation in Amazonian Peru: The author can be reached at: yu@mcz.harvard.edu
84. Cooprena R.L (pp.45):Visit Cooprena R.L.at: http://www.agroecoturismo.net; the organisation's email address is: cooprena@sol.racsa.co.cr
85. La Catarata Ecotourism Lodge (pp.45): http://www.agroecoturismo.net/english/catarata.htm
86. Monteverde Cloud Forest Reserve (pp.45): http://www.monteverdeinfo.com/
87. E-mail: montever@monteverdeinfo.com)
88. Poultney, C. and Spenceley, A. (2000) Pro-poor tourism strategies of Wilderness Safaris, Maputaland: Case study for the pro-poor tourism project, Report to the Overseas Development Institute, www.propoortourism.org.uk
89. For more information see: www.planeta.com/
90. http://www.propoortourism.org.uk/namibia_vol1.pdf
91. African Tracks: http://www.africantracks.co.za/video.html.
92. http://www.africantracks.co.za/video.html.