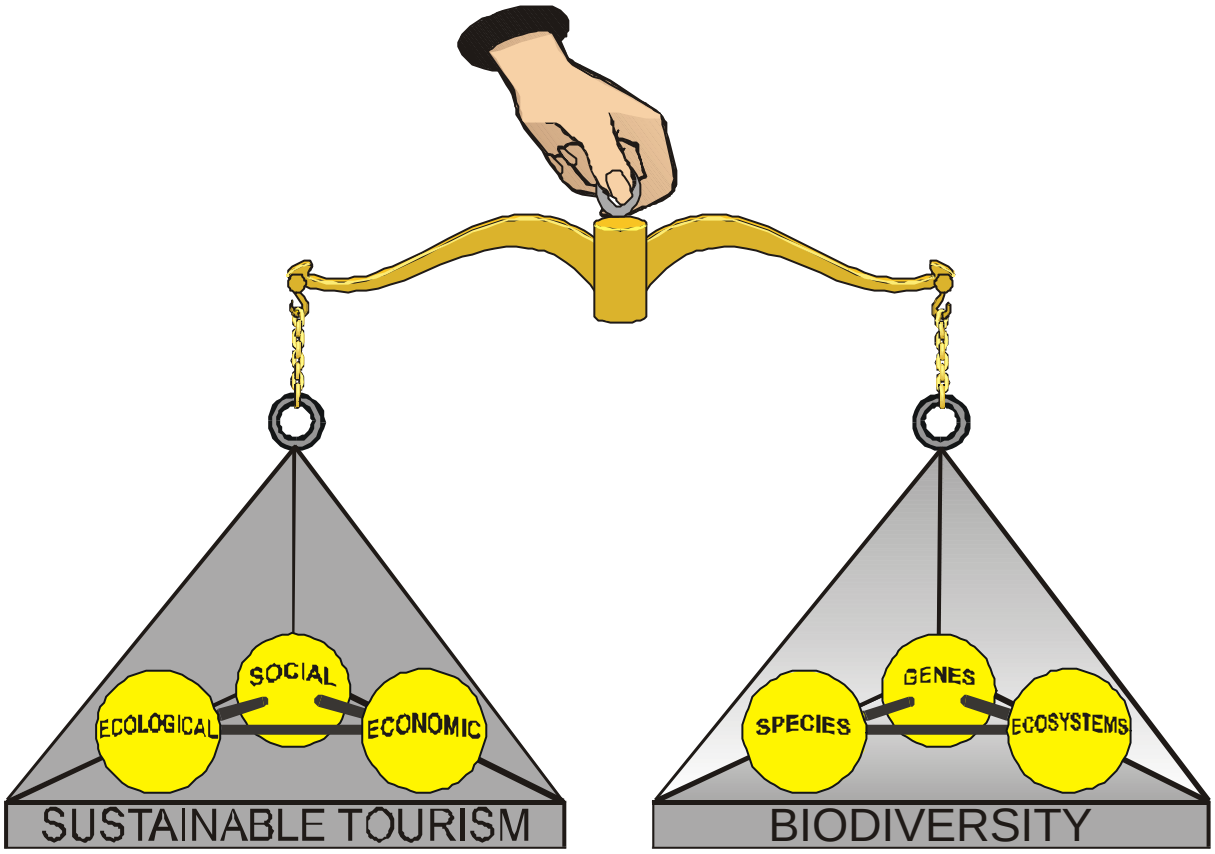
Lothar Gündling, Horst Korn & Rudolf Specht (Eds.)

International Workshop: Case Studies on Sustainable Tourism and Biological Diversity



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Report of the International Expert Workshop "Case Studies on Sustainable Tourism and Biological Diversity"

at the International Academy for Nature Conservation
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Lothar Gündling, Horst Korn & Rudolf Specht (Eds.)

German Federal Agency for Nature Conservation 2000

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Obituary for Dr. Günter Merz

For those of us who remember Günter Merz and his presentation during the workshop, the news of his death in a car accident on February 24, 2000, comes as a very sudden and unexpected blow. Whoever had the opportunity to get to know him better was struck by his friendliness, his sense of humour, his unassuming manner and his sense of dedication to nature conservation, a dedication which he managed to impart to those who had the luck to work with him. The international work of WWF Germany, the organization Günter Merz had been working for since 1991, profited considerably by his organizational and planning skills in the pursuit of conservation objectives, especially in Africa, his openness and his ability to achieve compromises with those who held - or seemed to hold - opposing views.

Trained as a biologist at the University of Heidelberg, Günter Merz was involved in the establishment of the Tai National Park in Côte d´Ivoire and in programmes for the conservation of the rain forest and forest elephant populations in Sierra Leone. He taught courses in wildlife ecology at the University of Juba in southern Sudan and worked as a consultant on nature conservation issues and the use of wildlife in German development cooperation projects in eastern Zaire. For ten years, he served as lecturer in tropical ecology at the University of Göttingen. In his capacity as head of the department for tropical forests with WWF Germany, Günter Merz was able to use his expertise to benefit the Africa programme of the international organization of WWF. Nature conservation in general and Africa in particular have lost a great friend, a friend who was convinced that the conservation of nature and natural resources and the well-being of the people who live off these resources are inseparable twins.

Günter Merz was not able to stay for the whole length of the workshop and so many of the participants may not have had a chance to get to know him. We - the organizers of the workshop - were convinced at that time that we would soon enough meet him again, hopefully under circumstances which would allow us to share more time. It was not meant to be. We can only hope to remain inspired by his dedication and enthusiasm.

We therefore dedicate this workshop report to the memory of Günter Merz.

Dr. Horst Korn Dr. Lothar Gündling Dr. Rudolf Specht

SUSTAINABLE USE OF BIODIVERSITY - THE EXAMPLE OF TOURISM

The International Expert Workshop
"Case Studies on Sustainable Tourism and Biological Diversity"

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Background

Sustainable tourism - sometimes also called "eco-tourism", "responsible tourism" or "environment-friendly tourism" - has become a popular and much debated issue in recent years. After adoption and entry into force of the Convention on Biological Diversity (CBD) the subject "sustainable tourism and biological diversity" entered the CBD context recognizing that tourism can be a means of sustainable use of the components of biological diversity being one of the three objectives (conservation of biological diversity / sustainable use of its components / fair and equitable sharing of the benefits arising out of the utilization of genetic resources, Article 1 CBD). However, it was also recognized that tourism, if it is to contribute to sustainable use of biological diversity, must fulfil certain requirements and criteria which, on the one hand, allow for a reasonable use but which, on the other hand, prevent that tourism destroys the very basis upon which it depends. Many declarations, charters, recommendations or codes of conduct have been developed since then proposing principles of sustainable tourism and biological diversity. Major milestones include:

- In 1994, the Sustainable Tourism World Conference, held in Lanzarote, agreed on the "Charter for Sustainable Tourism".
- In 1997, the "Berlin Declaration on Biological Diversity and Sustainable Tourism" adopted by an International Ministerial Conference in which governments, international

organizations and national NGOs were represented, formulated general and specific principles as a framework for biodiversity-friendly tourism.

- The Special Session of the United Nations General Assembly, held from 23 to 27 June 1997, adopted a "Programme for the Further Implementation of Agenda 21" which included a chapter on sustainable tourism.
- The 4th Conference of the Parties to the Convention on Biological Diversity, held in Bratislava from 4 to 15 May 1998, adopted Decision IV/15 which requested the Parties to the Convention to submit to the Executive Secretary information on basic aspects of sustainable tourism and biodiversity; at the Conference, Germany had submitted an Information Document entitled "Biological Diversity and Sustainable Tourism - Preparation of Global Guidelines" (UNEP/CBD/COP/4/Inf. 21).
- The Commission on Sustainable Development (CSD) at its 7th Session in April 1999 adopted Recommendations on "Tourism and Sustainable Development" which included an invitation to the Conference of the Parties to the Convention on Biological Diversity "to further consider, in the context of the process of the exchange of experiences, existing knowledge and best practice on sustainable tourism development and biological diversity with a view to contributing to 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 mountain ecosystems".
- The Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), at its 4th Meeting in Montreal from 21 to 25 June 1999, adopted Recommendations entitled "Development of approaches and practices for the sustainable use of biological resources, including tourism" (UNEP/CBD/SBSTTA/4/L.4, 24 June 1999).

The SBSTTA Recommendations underlined the linkages between tourism and sustainable use of biological diversity and noted that these linkages would be examined by the Executive Secretary of the Convention at the 5th Meeting of SBSTTA and that in further preparing for the Meeting contacts would be initiated with other groups involved in sustainable use, such as the Sustainable Use Initiative. The document adopted at the 4th Meeting of SBSTTA spelled out a number of principles of sustainable use and biodiversity and encouraged parties, governments and relevant organizations to continue to submit to the Executive Secretary **case studies** in this regard.

Expectations

After the 4th Meeting of SBSTTA, and responding to the Recommendations, the German Federal Government decided to organize a workshop on case studies on sustainable tourism and biodiversity with the objective to compile examples and good practices of sustainable tourism. The plan was to hold a technical meeting to examine the possible contributions of sustainable tourism to conservation and sustainable use of biological diversity. The Workshop was to assemble representatives from various regions of the world and also from various ecosystems important for tourism. A Concept Paper was prepared and sent out to invited participants. It is attached to this Report as Annex 3.

The Concept Paper proposed the following criteria / indicators of sustainable tourism as a means of sustainable use of biological diversity:

- Tourism activities are environmentally, economically, socially and culturally sustainable.
- Tourism contributes to conservation and sustainable use of biodiversity either by serving as incentive for conservation and sustainable use or by generating financial means allocated to conservation and sustainable use activities.
- Tourism respects the integrity and carrying capacity of ecosystems and habitats; due attention is paid to the characteristics of particular ecosystems, such as forests, grasslands, wetlands, mountains, etc.; additional burdens by tourism activities are avoided where the carrying capacity has been exhausted; restoration measures are taken where the environment has already been degraded.
- An inventory of tourism activities has been (is being) made; monitoring and integrated planning of tourism activities has been carried out (is being carried out).
- Tourism infrastructure planning is subject to a comprehensive and meaningful environmental impact assessment (EIA).
- Tourism activities rely on environmentally friendly technologies, such as e.g. no-waste or low-waste technologies or public transport.
- Tourism mobilizes the responsibility of all stakeholders involved, such as business, governments at all levels, local communities, NGOs; it uses economic instruments and incentives to stimulate the responsibility; financial means are generated and allocated to conservation and sustainable use.

- Planning and carrying out of tourism allows for the effective participation of local communities; tourism benefits local communities (local economy, local labour force).
- Tourism respects the values, lifestyles, cultures, and interests of indigenous and traditional communities; where these communities may be effected by tourism activities they are effectively involved in the planning and carrying out of such activities.
- Tourism in protected areas and other sensitive or vulnerable areas are managed and controlled; restrictions are established and enforced where necessary to attain the objectives of protection; special legal regimes are provided for protected areas, sensitive or vulnerable areas; numbers of tourists are limited where necessary; tourism may be prohibited in highly vulnerable or degraded areas which need to recover.
- Tourism in coastal, marine and island areas rely on integrated coastal zone management (ICZM) techniques; tourism respects the requirements of conservation and sustainable use in such areas.
- Rules and regulations for sport and outdoor activities, hunting tourism and trade in souvenirs are effectively enforced.
- Sustainability of tourism is part of the formal education and training of tourism professionals; the general public is being made aware of the requirements of sustainable tourism, conservation and sustainable use of biodiversity.

The Workshop Programme (see Annex 1 below) classified the case studies proposed by participants into three groups:

- Key issues of sustainable tourism and biological diversity;
- Sustainable tourism and protected areas;
- Participation.

The Workshop had 29 participants from 14 countries in all parts of the world (see list of participants, Annex 2 below). Represented were governments, non-governmental organizations, academics, the private sector and indigenous communities.

Key issues: Potential, problems, instruments of "nature-based" ("eco"-) tourism

Trevor Sandwith, in his case study on nature-based tourism in KwaZulu-Natal, suggested that "the sustainable use of natural resources is a key strategy for nature conservation in KwaZulu-Natal, since by creating a means whereby natural resources create direct economic benefits, nature conservation in the province is recognized as a major contributor to the quality of life of all communities. Nature-based tourism is an important component of this overall approach, and the development and management of visitor facilities in and adjacent to protected areas contributes directly to the nature conservation budget, enables participation and benefits to be derived for neighbouring communities, and contributes to the provincial and national economy."

However, sustainable use of natural resources through tourism must be supported by mechanisms by which the opportunities and benefits reach all communities involved and ensure an environmentally, socially and economically sustainable community life. In line with the country's Reconstruction and Development Programme, the environment is considered to play a vital role in satisfying basic needs of South African society which implies the utilization of natural resources based, however, on strategies to correct unequal access, ensure participation of communities in management and decision-making in wildlife conservation and tourism development, and promote environmental education and awareness. It is South Africa's experience that tourism has a growth potential also to local markets if the natural heritage of country is appreciated, if planning is sound, and if tourism is based on thorough research and consultation. The KwaZulu-Natal Nature Conservation Service's "Policy on Ecotourism and Protected Areas", adopted on 25 June 1999, is an attempt to translate these principles into action (the "Policy" document is reproduced in Trevor Sandwith's paper as Appendix).

Petra Stephan adds a word of caution and realism. She points at short-comings and constraints as well as risks involved in "eco-tourism", a term which, she believes, is often being misused in order to label and advertise tourism products that just "take place in nature" ("eco-tourism light"). She suggests to consider that:

- From an environmental point of view a stronger focus on domestic or regional markets may be more favourable than the international and global orientation;
- Sustainable tourism projects may have limited environmental effects in the region and that rapid growth of sustainable eco-tourism may soon exceed the carrying capacity of the region ("the curse of success");
- While active participation of local communities is essential, even the best form of participation may be no guarantee for a successful project;
- "Big money" made with tourism may stay with the international companies in the North and to a lesser extent to the societies in the South, particularly the local communities, so that "fair and equitable benefit-sharing" may be somewhat doubtful.

Tourism if it is to make a contribution to conservation and sustainable use of biodiversity needs to be managed. Essential tools are policies, legislation programmes, strategies and plans. A particular important instrument is Environmental Impact Assessment (EIA) which can ensure that proposed tourism projects respect the requirements of biodiversity conservation and sustainable use. *Beatriz Graterol* has developed a method to assess impacts on wildlife, an essential aspect of any EIA procedure for nature-based tourism projects. The particular value of the model is its formal and systematic nature which has the potential to increase the standing and weight of biodiversity considerations in the planning process.

Tourism and protected areas

Nature-based tourism often takes place in protected areas. It is, therefore, a basic issue how the interests of tourism can be accommodated with the needs of protected area management. This is a matter of law since management measures must have strength and must be complied with.

Piret Kiristaya's paper is a case study in protected area legislation as it can be applied on tourism. She takes the example of the Tolkuse Nature Reserve in Estonia, a protected area the objective of which is to preserve a diverse nature and the habitats of endangered plant and animal species. At the same time the protected area is placed attractively and receives a high number of visitors. Essential for its management is the zoning concept

which consists of a web of "special management zones" and a "limited management zone". The paper is realistic enough to address the practical problems which are caused by insufficient monitoring and enforcement. Strict and reliable monitoring and enforcement are essential if the very basis of tourism in Tolkuse is to be maintained: its attractive landscape and its rare plant and animals species.

The paper by *Robyn Bushell*, supported by members of the Task Force on Tourism and Protected Areas of the World Commission on Protected Areas of IUCN, discusses opportunities for partnerships between governments, the private sector and NGOs. Such partnerships - that is the lesson learned from the various case-studies from Australia - are needed to make management of tourism in protected areas successful. But they are a challenge: "The partnerships are necessary in areas of research and monitoring, training, and the establishment of viable local networks that share a common vision of protecting the well-being of the natural, social and cultural heritage. With the establishment of tourism and protected area partnerships benefit sharing will continue to be a vexed question, in relation to who has the rights to expect financial returns, who has invested intellectually, economically, and physically to make a project profitable? How much of the success is due not to these contributions but to the "value" placed on the cultural and natural heritage of a place and how can benefit sharing equitably address all these stakeholders?"
Günter Merz presents the famous case of Dzanga-Sangha in the Central African Republic, an eco-tourism project in one of the few remaining lowland tropical forest areas in Africa which is also the home of various ethnic groups, including different indigenous hunter-gatherer groups depending on the forests for food but also for the spiritual and cultural life. The project is an attempt to protect the forests in the Dzanga-Sangha protected area system (consisting of the Dzanga-Sangha Dense Forest Reserve and the Dzanga-Ndoki National Park) in such a way that local culture and socio-economic development of the local communities are respected and maintained.

The paper reports that the eco-tourism project realized in a "world class" resource, battling, however, with many infrastructural problems, had substantial positive effects on the local economy demonstrating that tourism can be an alternative to destructive activities such as poaching, diamond mining and logging. On the other hand, experience with the project showed that the present form of eco-tourism in the area does not fully cover the operational

costs; additional income is required (e.g. from gorilla tourism or a trust fund). Lessons learned from the case may be summarized as follows: Tourism in relatively undisturbed areas can be attractive and can be managed through a high-quality "interpretation and visitor service"; such tourism can provide a development alternative to local communities; it does, however, experience difficulties with covering the operational costs.

In Russia, there is a great potential for eco-tourism as *Natalia Moraleva, Elena Ledovshikh* and *Boris Sheftel* explain in their joint paper. Particularly promising are Siberia, the Far East, Kamchatka Peninsula or the Lake Baikal region. Eco-tourism, however, needs to be "an attractive and economically viable development option in the regions." The authors are optimistic in this regard: Investments are financially feasible, and eco-tourism has a potential to provide employment for local people, especially in remote, non-industrialized areas.

The particular conditions of economic and political change in Russia also suggest to use the opportunities provided by eco-tourism: On the one hand, the local population, in many regions, was forced to return to traditional activities, such as cattle growing, hay-making, hunting and gathering; on the other hand, weakening of the control structures increase the risk of unsustainable use of natural resources. "Eco-tourism can provide for the local population the economic incentives for conservation, change their attitude towards protected areas, and ensure their collaboration."

Lessons learned from eco-tourism in Russia are: (1) Eco-tourism development needs to be based on a complex approach including infrastructure improvement, training of personnel at different levels, information, advertising and marketing involving locals. (2) Eco-tourism needs thorough professional planning, management and monitoring. (3) Different protected areas may require different regimes. (4) The local population must be involved; benefits must reach them but must also be used by them to protected the natural environment. (5) "Zapovedniks" may not all be suited for eco-tourism; core zones should be free from any eco-tourism activity.

"Scientific tourism" can play a major role in protected area conservation and sustainable use. *Boris Sheftel* and *Natalia Moraleva* even consider it "the kind of ecological tourism in

Russia with the best perspective". The "Ecological Travel Centre" established in 1997 is an initiative to support student field practice in protected areas in Russia. The country not only has established a well organized system of protected areas; it also has a good tradition of scientific research in protected areas. Building upon this basis, and involving student groups, may increase the financial sources for the management of the protected areas as it may provide incentives for preserving the state of the environment.

The paper submitted to the Workshop by *Pierre Godin* discusses the role of "quality tourism" in the management of protected areas. It presents the results of case studies in a number of European countries where an "Integrated Quality Management" (IQM) approach has been developed and tested. IQM is an attempt to combine three different objectives: bringing benefits to the local economics; meeting social needs; and preserving the cultural and natural environment. Essential elements of IQM are: Defined strategies developed with the key partners; implementation of good practices; development and application of monitoring and evaluation tools; and permanent adjustment of the tourism practices according to their economic, social and environmental impacts.

The results from the case studies suggest that tourist destinations should "respect certain principles, in particular: integration of quality at all levels, including the environment; a combination of authenticity, distinctiveness and creativity; fitting tourist supply with targeted market segments; monitoring and managing the impact on the environment and the local community; professionalism; interdependence between tourism and other local activities; cooperation and commitments of all partners with a long-term vision; and last but not least, patience and continuous feedback."

Participation: the particular case of indigenous communities

That all stakeholders need to be involved in planning, management and benefit sharing is a view which is probably shared by everyone; no presentation or comment made at the Workshop without emphasizing it. Still, the consensus on the principle is one side; making it a reality and applying it in practice is another. How difficult it may be, and how far we still have to go, was illustrated by the case studies presented.

Alison Johnston reminds us of Article 8(j) of the CBD requiring to protect traditional knowledge, promote its wider application and ensure the sharing of benefits from the use of traditional knowledge. Tourism as a means of sustainable use of biodiversity must respect these principles. The paper is another suggestion to look at (eco)-tourism carefully, particularly with regard to local and indigenous communities' interests and values. "A candid look at industry trends, especially the flow of tourism from North to South, or tourism involving indigenous peoples, begs us to move the discussion of sustainability beyond the politically correct goal of inter-generational equity, to include respectful inter-changes in the present."

The paper presents the case study of a consultation process established by the government of Canada as an interim measure to concluding treaty negotiations with indigenous peoples in British Columbia, in order to protect indigenous rights with regard to customary practices. The experience, the paper suggests, has been somewhat sobering: "It has not been indigenous peoples' experience that the process works to their benefit"; it rather "facilitates 'business as usual'". Meaningful consultation, instead, requires: (1) shared conceptualization of the process; (2) an understanding to guide the process; (3) regular review of the effectiveness of the process; (4) anticipation of possible conflict sources; (5) cross-cultural education and exchanges; (6) hands-on involvement of both managers and local contact points; and (7) equitable negotiations as issues arise.

Another approach to meaningful involvement of indigenous communities is joint management of protected areas by government and indigenous communities, as the examples from Western Canada to which the paper refers illustrate. Collaborative planning and management methodologies need to be negotiated with indigenous (and local) communities which "is dependant on formalizing a respectful protocol for dialogue."

Norbert Hohl and *Emilio Grefa Mamallacta* present a case study concerned with community-based eco-tourism in the Ecuadorian Amazon. RICANCIE, founded in 1993, is a network of 10 Quichua communities (involving 250 indigenous families) which offer tourism infrastructure, usually built outside the community centres and using traditionally designed guest cabins or lodges. RICANCIE itself as well as each affiliated community has

a formal organizational structure, even though, as the paper explains, not in all cases the structure corresponded to the traditional way of managing communal work.

The experience of the RICANCIE communities shows that both cultural survival and maintenance of biodiversity may be critical. Indigenous communities must exercise control and market their traditional knowledge. Clash of cultural values cannot completely be prevented as well as conflicts between local people and tourists. Rules and norms must be established as the communities have done. A crucial role is being played by local guides who possess traditional knowledge; their role has at the same time strengthened traditional communal structures.

Issues for debates

A number of issues raised by the presentations and papers were identified requiring further and in-depth discussion. Issues were classified as "ecological" (preconditions for sustainable tourism such as strategic planning, policies, legislation, incentives; tools of management in protected areas, such as management plans, zoning, monitoring, EIA, licensing, control; integration of local and traditional cultures; participation; partnership between stakeholders; education and awareness) and "socio-economic" (economic impacts of tourism; value of nature; generating financial means; economic benefit to local communities; involvement in policy-making, decisions, management and business; respective roles of government and business; cost recovery), recognizing, however, that multiple interlinkages exist between the two.

Two Working Groups met briefly and attempted to make a contribution to the discussion needed. The Working Groups had to focus on a few issues. Group 1 compiled and discussed possible incentives for various groups of stakeholders, particularly investors, operators, visitors and locals. The Group agreed - as later on did the Plenary - that performance standards with which the compliance must be controlled are crucial, particularly where economic instruments are used. The Group also stressed the important role of education for sustainable tourism and endorsed fully the idea of partnerships between relevant governmental departments (ministries/departments of environment,

education, tourism, national parks/protected areas), community conservation groups, and the private sector.

Working Group 2 concentrated on the socio-economic conditions for sustainable and biodiversity-friendly tourism. Two objectives were identified: the viability of the enterprise and the equitable distribution of benefits and costs.

The Working Group listed a number of indicators for both objectives. Indicators for the viability of the enterprise were the coverage of operational costs and the return on investment. Indicators for equitable distribution of benefits and costs included: percentage of total spend distributed at different levels; percentage of accruing used for the maintenance of the resource; employment, numbers and type of jobs; the level of community-controlled investment; the respect of traditional resource rights with regard to access and use of biodiversity; and the distribution of property rights.

Working Group 2 also discussed the means of verification of the indicators. Means proposed for viability of the enterprise indicators included business plans, balance sheets and pricing; verification means for the equitable distribution of benefits and costs indicators included social impact assessment, household and income surveys, budgets of relevant agencies, employee surveys, audits of ownership and management and monitoring compliance with international standards for traditional resource rights.

Perspectives

The Workshop agreed that more information and discussion on the pertinent issues were needed, and that data gathering through case studies and international scientific exchange should continue. The participants expressed their hope that the debate in the CBD context progresses, coordinated with efforts undertaken in other international fora, both within and outside the United Nations system. Eventually, there should be an international understanding on rules - legally binding or "soft" - on tourism as a means of sustainable use of biological diversity.

SESSION 1: KEY ISSUES

NATURE-BASED TOURISM: A KEY STRATEGY FOR SUSTAINING BIODIVERSITY IN KWAZULU-NATAL, SOUTH AFRICA

TREVOR SANDWITH
KwaZulu-Natal Nature Conservation Service
South Africa

"It is by starting with the poorer, and enabling them to gain the livelihoods they want and need, that both they and sustainable development can best be served.....For the protection of the environment, poor people are not the problem, they are the solution"

Chambers, 1988

1. Introduction

Sustaining biodiversity in KwaZulu-Natal is based on three strategic pillars:

* Managing components of biodiversity
* Ensuring sustainable use
* Fostering nature conservation value in society

The application of sound conservation management principles and strategies is paramount, and throughout the protected area system, and across the landscape of the province, the KwaZulu-Natal Nature Conservation Service applies an approach of managing by objectives and adaptive management, supported by research and information, to achieve key performance measures for biodiversity.

The sustainable use of natural resources is a key strategy for nature conservation in KwaZulu-Natal, since by creating a means whereby natural resources create direct economic benefits, nature conservation in the province is recognized as a major

contributor to the quality of life of all communities. Nature-based tourism is an important component of this overall approach, and the development and management of visitor facilities in and adjacent to protected areas contributes directly to the nature conservation budget, enables participation and benefits to be derived for neighbouring communities, and contributes to the provincial and national economy.

Strategies for community conservation complement this approach, primarily through working with people to ensure that the opportunities and values / benefits of nature conservation can be harnessed by all communities, within a framework of environmentally, socially and economically self-sustaining community-based natural resource management.

In this paper, biodiversity, economic and social criteria for sustainable tourism are examined in the KwaZulu-Natal context. Emphasis will be given to the manner in which the KZNNCS has responded or is responding to the challenge of ensuring sustainability. Finally key challenges and opportunities for the future will be identified.

2. Legal and policy mandate for the promotion of ecotourism

The KwaZulu-Natal Nature Conservation Board and Service is a parastatal nature conservation agency for the province of KwaZulu-Natal in South Africa. Nature conservation is a provincial legislative competency in terms of the Constitution of South Africa, except for national parks, marine resources and national botanical gardens. Established in terms of the KwaZulu-Natal Nature Conservation Management Act, the KZNNCS is responsible for the conservation of biodiversity, the management of protected areas and the promotion of ecotourism in KwaZulu-Natal. The KZNNCS therefore has a legal mandate to promote and develop ecotourism within and adjacent to protected areas in the province.

This is consistent with the policies of the national and provincial governments. In particular, the government's Reconstruction and Development Programme (RDP) consists of five key programmes, namely to address the basic needs of people, the development of the country's human resources, the building of the economy, the democratization of the state

and society and to establish institutions which will ensure effective and coordinated implementation. In terms of the RDP, the environment is considered to play a vital role in meeting basic needs, and strategies are aimed at correcting unequal access to natural resources, ensuring the participation of communities in management and decision-making in wildlife conservation and tourism development, and promoting environmental education and awareness. Recognition is given to the growth potential of tourism in both foreign and local markets, with a particular emphasis on a culture of appreciation of the country's natural heritage. Sound planning, based on thorough research and consultation, is required to minimize potentially damaging impacts on cultural and natural resources.

The revision of national policies also reflects these principles, with the government's White Paper on the Development and Promotion of Tourism emphasizing "responsible tourism" as the most appropriate approach. The key economic, social and environmental objectives encompass all of those attributes which would generally be regarded as encompassing ecotourism, or responsible tourism. Importantly, the role of nature conservation agencies is specifically recognised, as including, amongst others, to:

(i) ensure the protection of biological diversity in South Africa, within the network of protected areas and other areas which contribute to nature conservation and tourism;

(ii) where appropriate, provide tourist facilities and experiences in areas under their control in a responsible manner;

(iii) promote the diversity of tourism experiences offered within and adjacent to protected areas;

(iv) offer a range of tourism experiences which remain accessible to the average South African;

(v) facilitate and support the establishment of biosphere reserves, conservancies and community-owned reserves;

(vi) where appropriate, facilitate and support the establishment of partnership tourism ventures between communities, private business and conservation agencies inside or adjacent to protected areas;

(vii) promote and provide opportunities for local entrepreneurs to integrate their operations with tourism activities inside protected areas.

At both a national and provincial level, tourism is regarded as a lead economic sector, and since its growth is largely dependent on the natural and cultural resource base, the strategic linkage between ecotourism and protected areas, and the contribution to social and economic objectives is explicit.

In particular, the allocation of resources to the sound management of biodiversity and the maintenance of a supportive policy and regulatory environment is contingent on biodiversity being perceived to be making a substantial contribution to the transformation of the state and society. To be successful, and therefore sustainable, it is necessary that the biodiversity, social and economic criteria for sustainability are met concurrently, since a failure in any dimension can affect the whole, and most importantly result in a perceived failure and hence lower priority for biodiversity conservation.

3. KZNNCS Policy on Ecotourism and Protected Areas

A Policy on Ecotourism and Protected Areas was formally approved by the new KwaZulu-Natal Nature Conservation Board in 1999 (Appendix 1).

There are eight principal undertakings which inform and commit the organisation to a particular approach to ecotourism. By examining and reflecting case studies in each theme, it is proposed to indicate progress and future challenges for harnessing the strategic advantage of ecotourism, within the above national and provincial policy framework, as a tool for ensuring long-term biodiversity conservation.

THEME 1

Optimise the nature and scale of ecotourism opportunities in protected areas to provide a range of visitor facilities which are attractive and affordable to a broad range of South Africans and other visitors, and which contribute to nature conservation, to the provision of visitor enjoyment, relaxation and learning, and to the economic development of the region, within limits of acceptable environmental change

At the provincial scale, it is the responsibility of the KZNNCS to provide access to the opportunities which are created by protected areas. In addition to making areas attractive to visitors from other parts of South Africa and other countries, there is a responsibility to provide equitable access to the people of KwaZulu-Natal. In general, this has been approached by ensuring that there is a range of facilities giving access to a diversity of opportunities in the 120 protected areas in the province, and within each area, ensuring that facilities are provided across a spectrum of recreational opportunities and pricing. Development in each protected area is governed by the objectives of the area set out in a management plan, and by the preparation of a conceptual development plan which through a zonation scheme, spatially defines opportunities and constraints and allocates resources optimally, dealing with the potential synergistic and cumulative impacts of development in the protected area. A biophysical rationale for zonation has been adopted, akin to the Recreational Opportunity Spectrum approach of the US Fish and Wildlife Service, with zonation categories including ranging through unmodified, partially modified and extensively modified environments, which enable recreational opportunities from pure wilderness experiences through to intensively developed and managed visitor facilities in selected nodes. Development and activities in each zone category are carefully controlled and monitored using a framewok of limits of acceptable, where environmental, social and economic thresholds are defined and monitored. The planning process is designed to be continuous and adaptive, so that there is no absolute blueprint for development, and in terms of a policy of open access to information, opportunities are provided to interested and affected parties to contribute to and influence the planning process.

Several key concerns remain. In particular, it is extremely difficult to predict the optimal nature and scale of development on any of the biophysical, social or economic dimensions.

It is really only through the application of performance indicators and by continuous monitoring that it is possible to adaptively approach an optimum level of development, and steer a course through the minefield of conservative or cautious approaches to development while ensuring that development opportunities which meet sustainability goals are implemented.

THEME 2

Plan, develop and manage visitor facilities in protected areas in accordance with the principles and practice of Integrated Environmental Management (IEM), including the assessment of the environmental, social and economic impacts of proposed development opportunities, public participation and consultation, transparent decision-making, mitigation of negative impacts and environmental auditing

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All developments in protected areas in KwaZulu-Natal are conceptualized and considered through an iterative process of environmental assessment and public consultation. A project planning protocol is applied as follows:

(1) the development opportunity is defined and revised;

(2) an initial screening and scoping exercise is conducted to identify any potentially significant impacts (biosphyical, social and economic) and the need for further detailed investigation;

(3) following the preparation of detailed plans, the scoping exercise is refined and concluc

(4) mitigation measures for identified impacts are designed;

(5) an environmental management plan is prepared for the construction as well as operational phases;

(6) monitoring and auditing is undertaken.

In addition, a number of policies are in place which control development and associated impacts, including, for example, policies on the use of plants for rehabilitation and

landscaping purposes; on the use of doomed biological material; on prohibition of servitudes in protected areas; on partnerships for ecotourism in protected areas.

Although adopted by the nature conservation authorities in the 1970s, the types of controls mentioned are now regulated by law, and authorisation for development in protected areas is regulated by the National Ministry of Environmental Affairs and Tourism. Whereas the controls are in place, environmental impact assessment remains an art rather than an exact science, and the limits of knowledge of the affected environment, as well as the lack of explicit methods of ensuring that effective trade-offs among alternative objectives are achieved, remain constraints to decision-making. There remains a need to define the baseline conditions, and to monitor change within an agreed framework to improve the accuracy and consistency of impact management.

THEME 3

Construct visitor facilities in protected areas which maintain the integrity of the built and natural environment, which are aesthetically pleasing, and which incorporate environmentally-friendly technologies for the provision of water and energy and for dealing with waste materials

Development is often considered only from the point of view that it creates negative impacts, whereas well considered and executed tourism projects in protected areas can and should complement the natural landscape to provide visitors with an enhanced opportunity to appreciate the natural resource base. In this way, the positive impact on the public perception of biodiversity conservation can be traded off against the defined and controllable impacts which accompany any development. The approach of the KZNNCS has been to design a strong relationship with the natural and cultural environment. For example, buildings are designed which take advantage of and even enhance views of the immediate and distant surroundings, attention is given to the texture and colour of materials, building styles are adopted which allow the development to rest lightly in the natural setting and which evoke the traditional building styles or cultural themes. In recent

years an approach has been adopted to theme developments with biodiversity or cultural elements.

The Ukhahlamba Drakensberg Park, for example, is a candidate World Heritage Site as it meets criteria of outstanding universal value for a natural property (unique mountain range, high levels of endemism) and cultural property (in-situ San rock art including in excess of 35000 images in 450 sites). The re-development of the successful Giant's Castle camp has been themed on the wild flowers of the Park, with paintings and interpretation of the rich floral diversity in every accommodation unit. The gardens in and around the camp recreate natural vegetation communities and make these accessible to every visitor. The planned San interpretative centre at Cathedral Peak carries the form of the rock shelters into the organic building style and creates "soul places" in the landscaped grounds to interpret and promote reverence for this culture displaced in the last century.

More practical measures include the use of environmental friendly technologies, especially for the provision of services to developments. It is standard practice to employ energy and water-saving measures in new developments and to promote these practices among visitors. To avoid the need for a continuous process of maintaining gravel roads, a programme is in place to permanently seal major access routes or to stabilize roads in sensitive environments. This reduces the demand for road-surfacing materials and prevents the run-off of gravel into the environment. Experimentation is being undertaken using a foam bitumen surfacing technique, which results in a permanent road surface using in-situ materials. Attention is also given to the handling of solid waste, with re-use and recycling programmes in many areas, and the use of artificial wetlands for effluent treatment.

There remain extensive challenges in this area, and a need to adopt and apply standards for environmentally friendly technologies which are economically feasible and ensure that impacts on biodiversity are minimized.

THEME 4

Enter into partnerships with community and private sector parties, where appropriate, and to assist with the planning and management of ecotourism within and adjacent to protected areas which will maximise community involvement and employment, and contribute to capacity-building and the creation of entrepreneurial opportunities among protected area neighbours

The location of protected areas throughout the landscape creates an important opportunity for especially rural communities to participate in tourism development in addition to rural agricultural or the direct harvesting of natural resources. In many rural areas of KwaZulu-Natal, nature conservation and the associated tourism opportunities provide the only prospect of alternative economic activity to rural subsistence. In addition, there may be real or perceived impacts of nature conservation on local communities. For example, the escape of predators or other animals from protected areas may adversely affect rural livestock or cultivation. In some cases, where people have historically been moved from areas which are now protected areas, there may be grounds for the restitution of land rights. In all of these cases, the creation of opportunities for local communities or entrepreneurs to participate in the development of tourism, may serve to resolve actual or perceived conflicts, and result in a more sustainable relationship serving both more effective biodiversity conservation and sustainable rural economic development. Examples of these projects and programmes have included the facilitation and/or brokering or leverage of funds for communities to undertake development projects, e.g. local markets for traditional crafts, vegetable gardens, traditional dancing teams and educational or health projects.

Building on a number of participatory forums, liaison and advisory structures with local communities, the KwaZulu-Natal Nature Conservation Management Act has now made provision for the establishment of Local Boards for Protected Areas. In terms of the Act, the Minister may appoint a Local Board made up of traditional authorities, non-governmental organisations, organized agriculture, tourism bodies and so on. The functions of the Local Boards include compiling the management plan for the protected area, enhancing communication between the protected area and the local community, and

integrating the activities of the local community and the protected area for the promotion of the sustainable use of natural resources .

In this way, a statutory basis has been provided for the participation and involvement of the local community into nature conservation activities. In many other areas where involvement has been limited to advisory structures, it has proved difficult to sustain the relationship. The Local Board structure, governed within the framework of laws and policies established for nature conservation in the province, is an innovative step to provide a more level power gradient between community and authorities and meets a real need for people to influence decision-making that affects them.

In association with the provision for Local Boards, the KwaZulu-Natal Nature Conservation Service established a Community Trust. All overnight and day visitors to protected areas are required to pay a levy per visit, which accrues to the Community Trust. In addition, the sale of game from the protected area contributes funds to the Trust. Ninety percent of the proceeds is made available for community projects in the relevant community, and the remainder accrues to a capital fund which can be distributed at the discretion of the Trustees. Since the Trust and levy was launched in February 1998, the total amount accumulated has been in excess of R7 million (US$1.1m). This may not appear to be a vast sum, but it is a significant contribution in a situation where there are few alternative sources of income, and it represents a sustainable source of income. Communities were requested by the Trust to make application for the use of the funds. An example of such as request was the ten tribal authorities around the Hluhluwe-Umfolozi Park agreeing the pool their resources and invest in an equity share in a tourism development in conjunction with the KwaZulu-Natal Nature Conservation Service. In this way tourism based on protected areas can create opportunities for community participation and empowerment. The cumulative and compounding impact of further contributions increasing the equity share in a development, while generating further income for the Trust may be a powerful tool for ensuring economic and social sustainability, both based on and contributing to biodiversity conservation. As the Local Boards are implemented during 2000, they will assume the function of requesting and evaluating proposals for the use of the Community Trust funds. Figure 1 illustrates the structure and relationships between the KZNNCS, the Local Boards, the Community and the Community Trust and levy.

An illustration of the power of the Community Trust to contribute to sustainable biodiversity conservation was provided in the order of the Land Claims Court regarding the restitution of the rights to beneficial occupation of the Eastern Shores of Lake St Lucia, which will be announced as South Africa's first World Heritage Site in December 1999. Instead of allowing the re-occupation of the land and hence its loss to biodiversity conservation, the Court, in accepting the validity of the claim, provided compensation in the form a monetary payment for alternative land, and entrenched the right of the community to receive benefits in the form of payments from the Community Trust in perpertuity. The biodiversity values of St Lucia were protected in the way, and the community will benefit from the proceeds of sustainable tourism. This is a graphic example of the interlinked nature of sustainable biodiversity, economic and social benefits hinging on tourism.

THEME 5

Provide appropriate nature conservation interpretation and information regarding the ecological, economic, historical and cultural values of the protected areas, and to promote nature conservation awareness and sustainable living among visitors to protected areas, as well as reverence for the history and culture of the region

Reference has been made to the integrated approach to designing and interpreting the natural resource base through visitor facilities. This has been taken further in the development of facilities which provide access to visitors to unique nature conservation management functions. The most recent example of this is the Centenary Game Capture Centre in the Hluhluwe-Umfolozi Park (HUP). HUP is well known as the site of the last remaining populations of the white rhinoceros *Ceratotherium simum simum*, and where the conservation effort has resulted in the increase of the population in the wild on state, private and community land to over 7000 animals. Fundamental to this programme was the game capture operation initiated in Umfolozi Game Reserve, where capture techniques were perfected, and which today sustains a significant wildlife auction, certainly the biggest in Africa.

An interpretative centre is currently under construction in Umfolozi Game Reserve, which consolidates the earlier facilities in a more suitable site, and provides a visitor facility which enables visitors to see the game capture operation in action. Associated with the centre is a community conservation centre which provides overnight accommodation and training facilities for the local community, a curio market which is owned and managed by the Vulamehlo Women's Group, a food outlet which will be operated by entrepreneurs in the local community. Provision has also been made for the training of tour guides from the local community, who will take visitors through he interpretation facility and into the game capture complex itself. In this way, a biodiversity conservation function has provided an economic opportunity to expand revenues, ensure greater community participation and interpret nature conservation functions. In a similar way, the San rock art centre at Cathedral Peak includes a state of the art interpretation facility, drawing the link between this stone age culture and the natural environment. Opportunities have been created for members of the local community to display and sell crafts in the centre and to take visitors to rock art shelters under supervision.

THEME 6

Motivate to the relevant authorities the need for infrastructure and essential support services, including roads, telecommunications, international and domestic airports, tourism marketing, and safety and security measures

Tourism based on protected areas has demonstrated that it can leverage the provision of essential infrastructure which is also required for community development generally. Effective communications, road, power and water supply infrastructure are often established in areas surrounding protected areas which have been developed for tourism. Although some might view this as potentially threatening for biodiversity, by far the greatest threat to biodiversity in the context of KwaZulu-Natal is rural poverty and dependence on direct consumptive use of natural resources. Upgraded regional infrastructure contributes towards the meeting of basic needs, and is an indirect impact of both nature conservation management and its associated tourism. Examples of this have been the routing of

powerlines and roads for protected area tourism developments through impoverished communities.

Community forums and liaison structures often cite basic infrastructure as among the critical needs for community development. Through participatory rural appraisal, nature conservation staff have worked with communities to identify these needs, and then jointly approached the relevant authorities to facilitate the provision of these services. There are a number of knock-on effects, including the reduction in the capital needed for an investor to start a new tourism development, and ensuring that a better relationship is established between the nature conservation authority and the community. Several memoranda of understanding have resulted, signifying greater cooperation. It is also possible through this process to steer development appropriately, as otherwise, the provision of services in an ad hoc way can itself be a threat to biodiversity conservation. A particular problem which has emerged over the past two years has been an escalation in crime, including crime which has targetted tourists or resulted in the poaching of animals. Communities who have been exposed to the benefits of nature-based tourism have developed community security forums to combat crime and therefore ensure that tourists keep visiting their areas. In addition, community members have identified suspects and informed both the nature conservation authorities and the police and security forces enabling better security measures to be put in place.

THEME 7

Motivate to the relevant authorities the need to consider nature conservation concerns in all economic and tourism policies, plans and programmes

In the context of a developing region, and where tourism is cited as the lead economic sector, there has been a rapid increase in the preparation of regional and local integrated development plans. A strategic assessment of the biodiversity resources of KwaZulu-Natal has been undertaken, to ensure that important components of biodiversity across the landscape are identified and that suitable measures are taken to protect them. By feeding this information into planning exercises, the KZNNCS has been able to secure appropriate zonation for these areas, and also to argue a case for biodiversity in the face of

development pressure. A strategic alliance between tourism and biodiversity conservation is relatively easy to motivate. However, it is critical that criteria are established for biodiversity significance, and that information is spatially explicit, so that effort can be appropriately directed.

A further dimension is the need to ensure that tourism products capitalise on the unique attraction value of the region's natural and cultural diversity, and are competitive in the market. The concept of geographically-linked tourism products is currently investigated. For example, the unique values of the Ukhahlamba Drakensberg Park are being linked with adjacent areas in the Lesotho highlands to form a Roof of Africa Circuit. In so doing, the collective attraction value can be jointly marketed, as opposed to many disparate elements, and norms and standards can be applied regionally.

THEME 8

Optimise the financial contribution which these facilities can and should provide to the conservation service of the Province

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A fundamental performance measure for sustainable tourism development is whether it creates an acceptable return on investment. This is true both at the project level and the level of the region. At the provincial level, the KZNNCS has invested in tourism as a source of revenue to sustain nature conservation activities in the face of declining state funding for nature conservation. Of a total budget of R255 million (US$ 42 million), R103 million or approximately 40% was derived from tourism and trade revenue in 1998/99. Many of the facilities are still operating at below optimal occupancy levels, although with increased marketing and a continued growth in demand, the current levels are more favourable.

At the level of the facilities themselves, the managers, who are not nature conservation officers, are charged with the preparation and implementation of effective business plans, and with controlling concessionaires who provide accommodation and associated catering services. For tourism in protected areas to be sustainable, it is essential that there is a net positive contribution and that the nature conservation agency, concessionaire, private developer or community partner achieves an acceptable return on investment. Recently,

more attention has been given to the structures themselves, to ensure that responsibility and accountability of each role player is clearly defined. This is particularly necessary when members of a community are involved as landlord and as employees in the same development. I am emphasizing this point, as poor management of tourism facilities can severely impact the confidence of the respective roleplayers, impact negatively on the experience of the visitor, and place the ecosystem at risk. If carefully managed, operations can contribute to sustainability in all dimensions, and be a real force in convincing people that biodiversity conservation makes a meaningful contribution.

There remains a need to monitor the performance of the products in the market, and to ensure that in addition to accurate statistics on visitor numbers and activities, that tourism is responsive to market trends (demand-driven) rather than supply-driven. It is also important to establish the contribution which nature conservation/tourism makes to the local, regional and national economies. This will enable an argument to put to local and regional authorities to sustain contributions to nature conservation and its associated tourism as an investment or cost in relation to the values derived.

4. High level performance measures for nature conservation in KwaZulu-Natal

In this paper, it has been attempted to describe how biodiversity, economics and social factors interact to create conditions in which tourism can sustain biodiversity conservation in KwaZulu-Natal. The preparation of a Business Model for the KwaZulu-Natal Nature Conservation Service identified that there were several dimensions which characterised the core business of the Service, and that these were indivisible and had to be co-measured to determine both goal achievement and sustainability.

The six key performance areas for the KZNNCS are:

* Biodiversity
* Community
* Customer
* Finance
* Organisation
* Innovation and learning

By regularly measuring indices across the balanced scorecard, the organisation is able to promote strategic thinking and guide decision-making which achieves synergy among these competing objectives. This exercise has revealed just how difficult it is to achieve a balanced scorecard, i.e. ensure that the relative level of achievement across the six dimensions is in harmony. This discussion on the sustainability of tourism within the context of nature conservation management has attempted to provide a rationale for an integrated and balanced approach to the promotion of tourism based on unique biodiversity resources. It has, however, emphasized the need for an explicit recognition of performance measurement as basis for evaluating sustainability, whether at the high level, regional level, or at the site-specific level of a particular tourism operation. Most importantly, there remain concerns that what appear to be appropriate approaches and strategies for sustainable tourism need to be backed up by hard evidence. Measurable indices of performance remain elusive, and a key area for research.

Acknowledgements

The German Federal Agency for Nature Conservation is gratefully acknowledged for financial support enabling my attendance at the International expert workshop on "Sustainable Use of Biodiversity - The Example of Tourism". It is hoped that the interaction and stimulation of colleagues working around the world will continue to develop the themes and approaches demanding by this exacting topic, and that tourism for biodiversity conservation will move from advocacy and experiment to measurable sustainability.

APPENDIX 1: KZNNCS Policy on Ecotourism and Protected Areas

E Z O K O N G I W A K W E M V E L O K Z N
K Z N N A T U R E C O N S E R V A T I O N S E R V I C E
K Z N N A T U U R B E W A R I N G S D I E N S

POLICY

SUBJECT: **ECOTOURISM AND PROTECTED AREAS** POLICY FILE NO: 7x
DATE OF BOARD APPROVAL: 25 June 1999 BOARD MINUTE: 4.1.2.

The KwaZulu-Natal Nature Conservation Board **RECOGNISING** that:

* the sustainable use of wildlife resources is considered to be a key strategy for the conservation of biodiversity;

* tourism is a lead economic sector in the province as a whole, and that ecotourism provides economic opportunities which are especially important in rural areas where few other opportunities exist;

* the statutorily proclaimed protected areas of the province of KwaZulu-Natal are the key attractions for domestic and international tourism to the province;

and **NOTING** further that:

* ecotourism development has the potential to create jobs and generate entrepreneurial opportunities for people with a variety of backgrounds, skills and experience, including rural communities and especially women;

* tourism can generate negative impacts on the environment and on rural communities if not developed and managed sensitively;

* successful ecotourism development is dependent on the provision of infrastructure and essential support services by the State;

and **REALISING** that:

* the provision of visitor access to protected areas is an integral component of the sustainable use of the wildlife resources of the province;

* the flow of benefits from protected areas at the local, regional, national and international level, should be equitable and sustainable;

* the provision of visitor access to protected areas provides a source of revenue to complement state funding for nature conservation, and hence to maintain the nature conservation resource base;

* all of the people in the province and further afield have the right to benefit from the recreational opportunities presented by protected areas, including those persons who have disabilities necessitating the provision of modified access or accommodation facilities.

DEFINES ECOTOURISM TO ENCOMPASS:

Responsible tourism, based on the wildlife resources of the province, developed and managed to maintain or enhance environmental quality and to ensure that benefits accrue to society and, particularly, to communities neighbouring protected areas;

UNDERTAKES to:

1. optimise the nature and scale of ecotourism opportunities in protected areas to provide a range of visitor facilities which are attractive and affordable to a broad range of South Africans and other visitors, and which contribute to nature conservation, to the provision of visitor enjoyment, relaxation and learning, and to the economic development of the region, within limits of acceptable environmental change;

2. plan, develop and manage visitor facilities in protected areas in accordance with the principles and practice of Integrated Environmental Management (IEM), including the assessment of the environmental, social and economic impacts of proposed development opportunities, public participation and consultation, transparent decision-making, mitigation of negative impacts and environmental auditing;

3. construct visitor facilities in protected areas which maintain the integrity of the built and natural environment, which are aesthetically pleasing, and which incorporate

environmentally-friendly technologies for the provision of water and energy and for dealing with waste materials;

4. enter into partnerships with community and private sector parties, where appropriate, and to assist with the planning and management of ecotourism within and adjacent to protected areas which will maximise community involvement and employment, and contribute to capacity-building and the creation of entrepreneurial opportunities among protected area neighbours;

5. provide appropriate nature conservation interpretation and information regarding the ecological, economic, historical and cultural values of the protected areas, and to promote nature conservation awareness and sustainable living among visitors to protected areas, as well as reverence for the history and culture of the region;

6. motivate to the relevant authorities the need for infrastructure and essential support services, including roads, telecommunications, international and domestic airports, tourism marketing, and safety and security measures;

7. motivate to the relevant authorities the need to consider nature conservation concerns in all economic and tourism policies, plans and programmes.

8. optimise the financial contribution which these facilities can and should provide to the conservation service of the Province.

ANNEXURE 1

CHARACTERISTICS OF THE NATURE CONSERVATION SERVICE'S ECOTOURISM DEVELOPMENTS

1. Integrated Environmental Management

All development within protected areas is subject to an environmental assessment procedure which extends through concept planning at the protected area scale, through to decision-making regarding development on particular sites. This is in accordance with regulations for environmental assessment promulgated in terms of the Environment Conservation Act (Act No 73 of 1989).

2. Nature-based facilities

A range of nature-based visitor facilities is provided, to optimise the recreational opportunity spectrum within protected areas. These facilities range from pure wilderness experiences, far removed from the sights and sounds of man, to comfortable accommodation within landscaped natural settings. Facilities are all nature-based and designed to evoke a sense of naturalness. Consequently, materials are predominantly natural or blend with natural textures and colours. Constructed recreational facilities are limited to swimming pools designed to blend in with their surroundings, or board walks and paths designed to provide access to otherwise inaccessible or sensitive environments. Built facilities include the provision of curio and food or restaurant facilities, and, in some locations, the availability of conference or function rooms for visitors in groups. Although playgrounds using natural materials may be provided in suitable locations, there will be no other sporting or leisure facilities constructed in protected areas.

Furthermore, all electricity and telephone cables will be channelled underground as far as possible. No television or radio transmitters will be provided in accommodation units.

3. Equity of access

The ecotourism facilities built by the Nature Conservation Service are intended to provide affordable access to as broad a range of visitors as possible, ranging from the provision of free access to protected area neighbours, to comfortable self-catering facilities in hutted camps and bush lodges. Tariffs are designed to recover the costs of the provision of visitor facilities and to generate surplus revenue which is used to maintain the nature conservation values of the protected areas.

4. Environmentally friendly design and construction

The design and construction of visitor facilities is in accordance with the highest standard of professional expertise and practice. Of paramount importance is the integrity of the natural environment, and environmental protection measures are instituted, as is a construction and post-construction environmental audit protocol. Architecture, materials and landscaping will ensure that facilities complement the natural environment, and where possible will restore environmental quality on disturbed sites. Environmentally-friendly technologies which minimize the use of natural resources, e.g. energy and water saving technologies, will be incorporated into the development of visitor facilities.

5. Community opportunity

Every opportunity will be used to promote the participation of local people in the design, construction, operation and management of visitor facilities in protected areas, and to use these facilities to generate further complementary entrepreneurial opportunities.

SUSTAINABLE USE OF BIODIVERSITY – WHAT WE CAN LEARN FROM ECOTOURISM IN DEVELOPING COUNTRIES

PETRA STEPHAN
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Germany

1. Introduction

The General Assembly of the United Nations proclaimed the year 2002 as "The International Year of Ecotourism". Multilateral development institutions such as the World Bank, the Global Environmental Facility, governments in developing countries, the tourism industry as well as local non-governmental organizations all over the world count on ecotourism as a supposed panacea for development and biodiversity protection. With assumed annual growth rates from ten up to thirty percent, ecotourism is often praised as the most dynamic sector in the tourism industry.[1] But some of the stakeholders in the tourism industry seem to use a very extended definition of ecotourism. It includes wildlife watching as well as adventure tourism. Tourism products that are advertised under the label "eco" often only have in common, that they take place in nature. A lot of these offers can be called "ecotourism-light". They only add visits to protected areas to regular package tours, for instance. The concept of "ecotourism" seems to share this fate with the concept of "sustainable development": everybody talks about it and everybody defines it in accordance with one's own interests.

There are only few ecotourism projects which can really create opportunities for sustainable development within a region. Most of these projects are of a manageable size, and have been established in cooperation with or by non-governmental organizations (NGO) that are engaged in nature protection schemes. The affected local communities actively and intensively participate in the planning and implementation of these projects. A factor that is often decisive for the success of a project is the commitment of some dedicated individuals who push the projects against the many obstacles. But even projects

[1] The Ecotourism Society (TES) 1998: Ecotourism Statistical Fact Sheet, www.ecotourism.org/datafr.html 08/24/1999.

with excellent starting conditions struggle with problems. This is not surprising. Having ecological, social, cultural and economical goals at the same time gives a lot of opportunities for ecotourism to fail. The different goals are not always compatible with each other.

Every project has its own character, develops its own dynamic, and needs an individual strategy. This strategy usually is based on the ecological, political, social and cultural uniqueness of a region.

In this article some of the challenges and shortcomings which seem to apply to most of the ecotourism-projects are discussed. These constraints seem to apply as well to other forms of sustainable use of biodiversity which include - apart from ecotourism - sustainable timber production, use of non-wood forest products (like rattan), agroforestry (e.g. the cultivation of coffee or bananas under coconut trees), wildlife utilization (hunting or domestication of wildlife), and biodiversity prospecting, which means the exploitation of biodiversity for commercially valuable genetic and biochemical resources for pharmacy, agriculture and industry.

2. International versus Regional Orientation

Most of the ecotourism projects in developing countries try to attract tourists from the North - at least in the long run. But for several reasons the planning and implemenation of eco-tourism projects for the international market remains a risky business. From the environmental and the management point of view a stronger focus on domestic or regional markets is more favorable for ecotourism projects as well as for bioresources-based enterprises.

2.1 The environmental aspect

Most of the ecotourists depart in the North and travel by plane to their travel destination in the south. Even if they continued to travel by eco-friendly means of transportation in the country of destination this would not compensate for the ecological damage caused by the long-distant flight. Up to 97% of the primary energy that a tourist needs for transportation

during his entire trip will be used up by the flight.[2] Meanwhile researchers acknowledge the fact that emissions by aviation contribute to climate change and that in turn the predicted climate change will have major consequences on tourism itself.[3] The promises of tour companies to plant trees in compensation for the emissions by airplanes might soothe the environmental conscience of the tourists, but it does not stop global climate changes. The northern tourist would theoretically reduce the impact of his "eco-sin" by expanding the duration of his stay. The longer the stay the better the eco-ratio.

It would be more favorable if the ecotourist started his travel within the region of his destination. This often means that he can travel more eco-friendly. Some developing countries already have a potential for domestic tourism. Typical for these countries is an advanced integration into the global economy that results in a higher level of social stratification and a strong middle-class when compared to poorer countries. The family income rises together with the number of working women, and the transport and communication sector has been improved. These factors strengthened domestic tourism in countries such as Brazil, Mexico, South Africa and China. In South Africa, the number of domestic tourists has risen from 4.2 million foreign visitors in 1995 to 7.9 million in 1997.[4] In India 500,000 domestic eco-tourists visited the "Green Triangle" in the northeastern states Assam, Arunachal Pradesh, Tripura, Meghalaya and Nagaland in 1996.[5]

[2] Verkehrsclub Österreich (VCÖ) (ed.) 1997: Flugverkehr – Wachstum auf Kosten der Umwelt. Wissenschaft & Verkehr, 5/1997, p.18.
[3] Intergovernmental Panel on Climate Change (IPCC) 1999: Aviation and the Global Atmosphere, Cambridge; Viner, David/Mauren Agnew 1999: Climate Change and Its Impacts on Tourism. Report prepared for WWF-UK, Norwich.
[4] Ghimire, Krishna 1997: Emerging Mass Tourism in the South: Reflections on the Social Opportunities and Costs of National and Regional Tourism in Developing Countries. UNRISD Discussion Paper No. 85, p. 13.
[5] Rao, Nina/K.T. Suresh 1999: Domestic Tourism in India, in: Ghimire, Krishna (eds.) 1999: The Native Tourist. Emerging National and Regional Mass Tourism in Developing Countries, Geneva, p. 198.

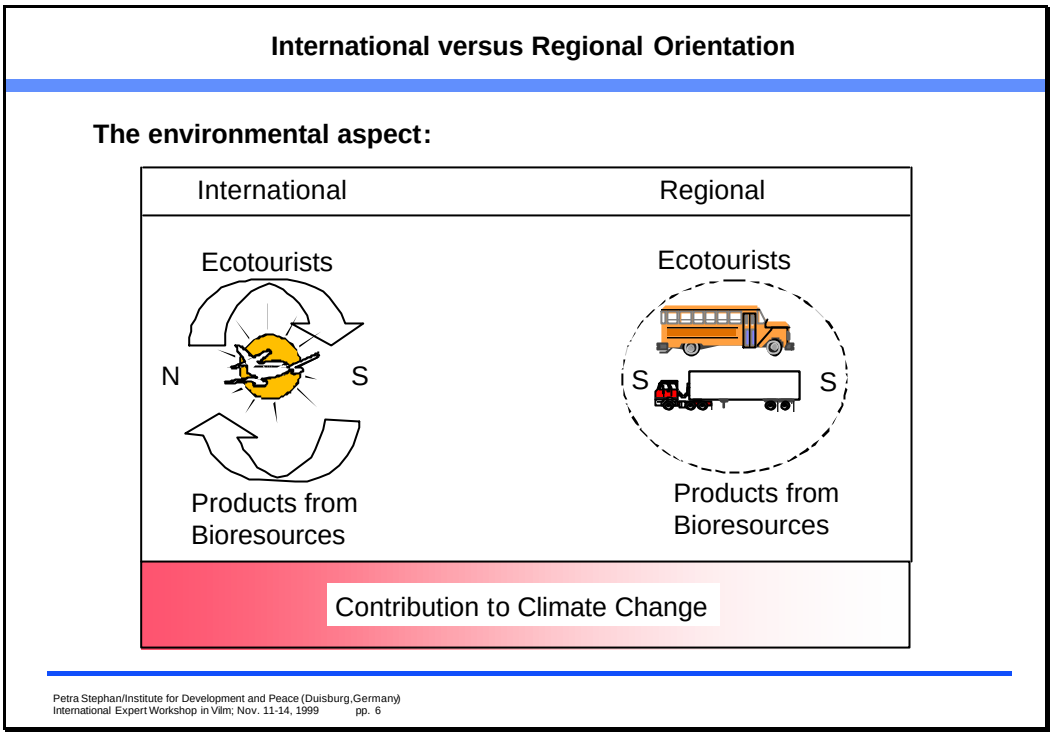

Figure 1: International versus regional orientation – The environmental aspect

It is obvious that the focus on regional markets and consumers lowers the environmental costs of transportation. But: In large countries with inadequate transport infrastructures domestic eco-tourists will still be forced to travel by plane. Furthermore: In developing countries in which the majority of people struggle to meet their daily needs there still is not enough demand for (comparably expensive) domestic ecotours. These countries can only attract ecotourists from the North. One has to bear in mind that even domestic tourism can include social, cultural and ecological risks for the destinations and that it demands a lot of regulations, monitoring and educational work.

2.2 The management aspect

Especially ecotourism projects in developing or newly industrializing countries whose target groups are so far mainly domestic or regional tourists have difficulties in getting access to the international tourist markets in the North. The non-governmental organization Thai Volunteer Service (TVS) in Thailand had to make this experience.

Since 1994 TVS offers socially and ecologically responsible tours in cooperation with local NGOs. One of their main goals is an active participation of the visited communities in the planning and implemention process of the projects. In order to prevent local families to become economically dependent on tourism alone, NGOs see to it that money earned from tourism remains an additional income. The travellers stay with local families and participate in their daily activities. This project has hosted up to 700 visitors per year who were 'distributed' over various regions in Thailand. Still, most of the visitors are Thais, but TVS tries to attract foreign tourists.[6] In 1998, two small German tour operators offered TVS tours. Since only few German tourists seemed to be interested in these ecotours, the tour operators cancelled the tours in 1999. When asked for the reasons of this failure, one of the German tour operators answered that Thailand does not seem to be the right destination for organized ecotourism-tours. Instead, Thailand is reputed to be a bargain destination for individualist tourists. Now, TVS tries to offer these tours to foreign individual tourists within Thailand.[7]

This experience is shared by the "Deutsche Gesellschaft für Technische Zusammenarbeit" (GTZ), the German development agency. A collaborator of the GTZ complained that it is very difficult to get German tour operators interested in their ecotourism projects. Often the destinations seem to be too exotic[8].

The two examples show how difficult it can be to obtain access to foreign markets. Tourism projects which meet the requirements of international markets, are often based on heavy capital investments. These investments are rarely available for local investors. Furthermore, it is a risky business to invest in attracting foreign tourists since tourism offers to international destinations are vulnerable to product substitution due to high competition among the destinations. Domestic and regional tourism projects whose target group is those of domestic tourists are in a better position: they are less susceptible to international political crises or economic recessions. Although domestic or regional tourism does not harvest hard currencies, it can help to halt an out-flow of foreign exchange by preventing national tourists to leave the country for vacations.

[6] Thai Volunteer Service: Responsible Ecological Social Tour Project 1998 – 1999; Interview with Nicole Häusler; March, 22nd. 1999.
[7] Interview with Kai Pardon/One World reisen mit Sinnen; August 30th 1999.
[8] Und was haben die Armen davon? Ernüchternde Bilanz des Ökotourismus in Entwicklungsländern, in: Frankfurter Rundschau, 24th of January 1998,p. M8.

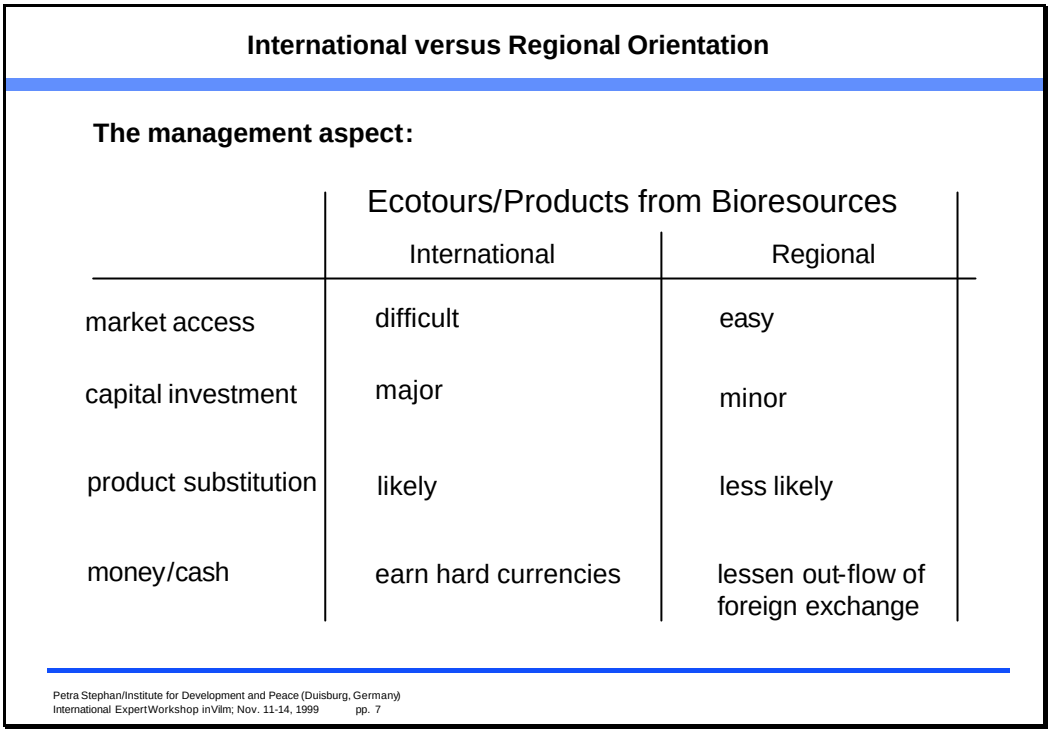

Figure 2: International versus regional orientation – The management aspect

2.3 Lessons for sustainable use of biodiversity in general

The above mentioned environmental and economical concerns regarding international tourist markets equally apply to other products deriving from bioresources. Products produced for local or nearby markets reduce transportation costs- and at the same time - emissions. Bioresources which are consumed within the region are therefore more eco-friendly. In some developing countries such as Egypt, South Africa and China there seems to be growing market for ecologically grown or manufactured products. The Food and Agricultural Organization (FAO) points out that in China, for example, more and more people are asking for organically grown food.[9] These people might also be interested in other bioresources related products. A regional orientation improves at the same time the opportunity for local people to satisfy their basic needs in rural areas.

Seen from the management perspective an initial focus on nearby markets seems to be the best strategy for profitable business with bioresources. A study in Nepal showed that locally made medicines deriving from forest ecosystems which had no chance on export markets show good prospects when produced and sold locally.[10] In this example, nearby markets can be entered and monitored more easily and production for those markets requires only moderate capital investment. Furthermore, compared to international markets local markets for products made of bioresources are much more predictable in terms of product substitution.

3. The curse of success

Sustainable tourism projects can have only limited economical effects in the region. Rapid growth even of sustainable ecotourism projects soon exceeds the ecological and social carrying capacity of the region.

3.1 Examples

Pioneers of ecotourism are –among others – the Galapagos Islands in Ecuador and the Monteverde Cloud Forest Reserve in Costa Rica. The Cloud Forest Reserve on the hills of the Cordillera de Tilarán in the northwestern part of Costa Rica has been visited by 400 tourists in 1974. Twenty years later this number has grown twenty fold. With annual receipts of 850,000 US-$, tourism contributes up to 70 % of the region's income. On the Galapagos Islands, the number of tourists has grown from 4,500 in 1970 up to 60,000 in 1995. The income from the Galapagos Islands accounts for half of the total tourism income of Ecuador. The number of tourists who were allowed to visit the archipelago increased along with the demand. But not only the growing numbers of tourists jeopardize nature and social structure within both of the protected areas. Numerous Ecuadorians from the mainland

[9] Food and Agricultural Organization of the UN (FAO) 1999: http://www.fao.org/unfao/bodies/COAG/COAG15/X0075E.htm.
[10] Taylor, David. A. 1997: Saving the Forest for the Trees. Alternative Products from Woodlands, in: Environment. Vol.39/No.1, pp. 6 – 11 & 33 – 36.

respectively Costaricans from other parts of their country migrate into the protected areas. They are attracted by supposedly good job opportunities in the tourism industry. The number of inhabitants on the Galapagos Islands has grown from 1,300 in 1950 up to 13,000 today. Less than one third of the today's inhabitants were born on the islands.[11] In Monteverde, 25% of today's inhabitants have moved to the region within the last five years. Tourists and migrants overburden the capacity of the local infrastructure in both of the protected areas, and affect the habitats by overuse of the natural resources. Due to expanded tourism, the costs of living have risen in these areas.

In the "Reserva Monteverde" in Costa Rica nature and biodiversity as well as local community values and institutions are threatened by the tourism development. In this area, there has been developed a traditional community live with communal decision making that helped nonviolent forms of conflict solution. These unique and valuable mechanisms are put at risk by rapid increase in the number of tourists and migrants and their lifestyles[12].

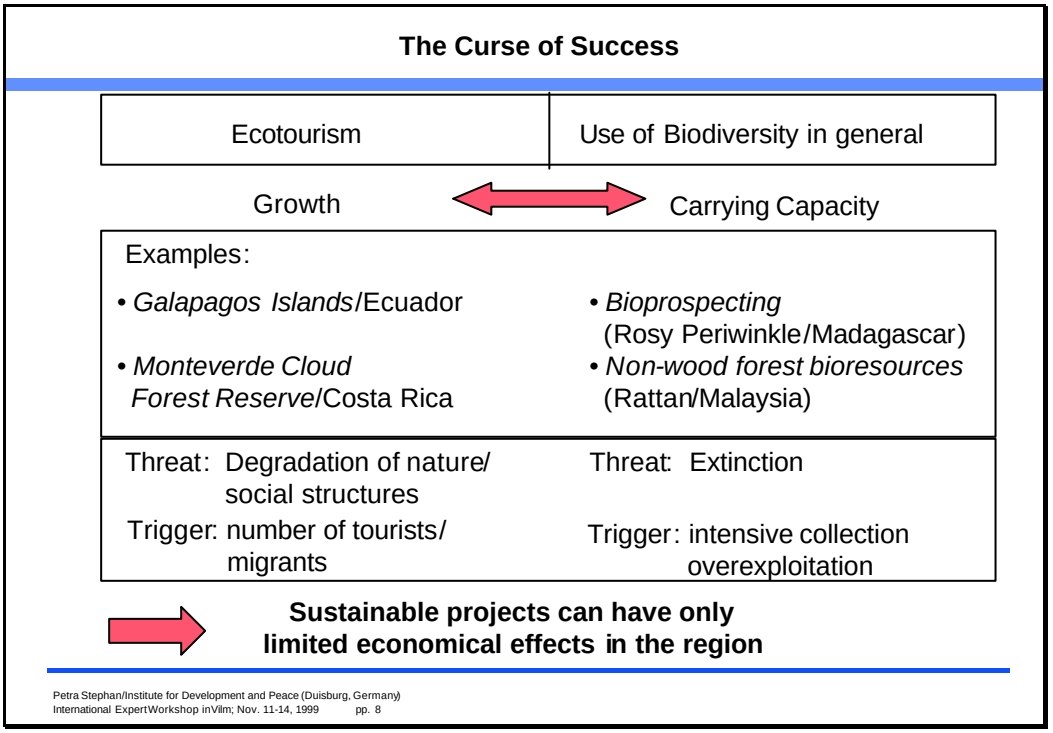

Figure 3: The Curse of success

[11] World Wide Fund for Nature (WWF) 1997: Galapagos Report 1996 – 1997, Quito, p. 1.

3.2 Lessons for sustainable use of biodiversity in general

As shown before, tourism can become ecologically, socially and culturally destructive, when it becomes the only resource that the local or regional economy can rely on. This seems to apply to any other form of usage of biodiversity as well. It seems to be valid for most sustainable commercialized bioresources that they can only have limited economic effects in the region. This becomes evident in the case of bioprospecting. Intensive collection of plants for the pharmaceutical industry has put some species at the risk of extinction. A well known example is Rosy Periwinkle (Catharanthus roseus), a plant which is used against several kinds of cancer. Collected mainly in Madagascar, the species has become almost extinct on this African Island. Various examples from India, Nepal and Kenya could be added.[13] Non-wood forest bioresources face the same risk. Rattan for instance is a tropical forest plant used in many ways by locals since decades. The plant has become an important export article in Malaysia and on the Philippines. Growing demand has already lead to overexploitation in some areas. Today, 35% of the rattan species are endangered in Malaysia.[14]

4. Participation – not always a guarantee for success

Evaluations of (not only) ecotourism projects demonstrate that there is no way around the active participation of local communities for an ecologically and economically successful project. But even projects which are completely run by locals are not automatically successful as the following example of the Kuna-Indios in Pananma shows.

4.1 The example of the Kunas

[12] Honey, Martha: Paying the Price of Ecotourism, in: Américas, pp. 40 – 47.

[13] Gettkant, Andreas, Petra Stephan 1994: Die Auswirkungen biotechnologischer Nutzungsstrategien (v.a. Biodiversity prospecting) im Bezug zu Flächenschutzstrategien am Beispiel des tropischen Regenwaldes. Unveröffentlichtes Gutachten im Auftrag des Ausschusses für Forschung, Technologie und Technikfolgeabschätzung des Deutschen Bundestages für das Projekt: "Auswirkungen moderner Biotechnologien auf Entwicklungsländer und Folgen für die zukünftige Zusammenarbeit zwischen Industrie- und Entwicklungsländern", p. 24.

The 47,000 Kunas live on tiny islands along the Caribbean cost northeast from Panama City. They won the territorial rights to their homelands which consist of more than 365 islands in 1925. The trade with coconuts which accounted for more than 70 % of the regions total income in the 1960s is now declining. Also, the lobsters are over-fished, and they can no longer contribute effectively to the living of the community. Today, there are only a few sustainable options left for the indigenous people to earn their living – tourism being the most important one.

With support of the World Wide Fund of Nature (WWF), the Kunas established the protected areas "Nusagandi" and "Pemasky" in the Kuna highlands. These reserves aim at protecting the forests and its biodiversity and attracting scientists and ecotourists. The community passed tourism regulations in order to lessen negative consequences which might accompany this form of usage. The regulations cover the distribution of the profits as well as the participation of the community members. According to the regulations, tourism projects must be designed ecologically and socially appropriate. The tourist have to follow a special code of conduct. The accommodations are exclusively run by indigenous families and foreign investors are not welcome. The Kunas attacked and expelled North American investors who had opened a hotel on San Blas prior to the regulations.

Today, there are 13 hotels on the islands. A few are relatively successful, many are not. There are several reasons for the failures: The Kuna owners have little business experience, insufficient access to markets, and communication is difficult between the islands and the mainland. A tourism strategy which could help to maximize the profits for the local people does not exist. At present, for example, the hotels import most of their food from the mainland instead of promoting the local cultivation the food. The profit is generated elsewhere. There is an urgent need for education and training of the locals in order to become competitive.[15]

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[14] World Resources Institute (WRI), World Conservation Union (IUCN), United Nations Environment Program (UNEP) 1992: Global Biodiversity Strategy, Washington.

[15] Schmid, Mark 1997: Hausordnung für Paradies-Besucher. Indianisches Volk bestimmt Tourismus-Entwicklung selbst, in: mosqito, No.1/February 1997, pp. 28 – 29; Epler Wood, Megan 1998: In Search of True Ecotourism. The Kuna Kingdom, http://www.greenbuilder.com/mader/planeta/0898/0898journey.html; Bennett, Judy 1999: The Dream and the Reality: Tourism in Kuna Yala, in: Cultural Survival Quarterly, Summer 1999, pp. 33 – 35.

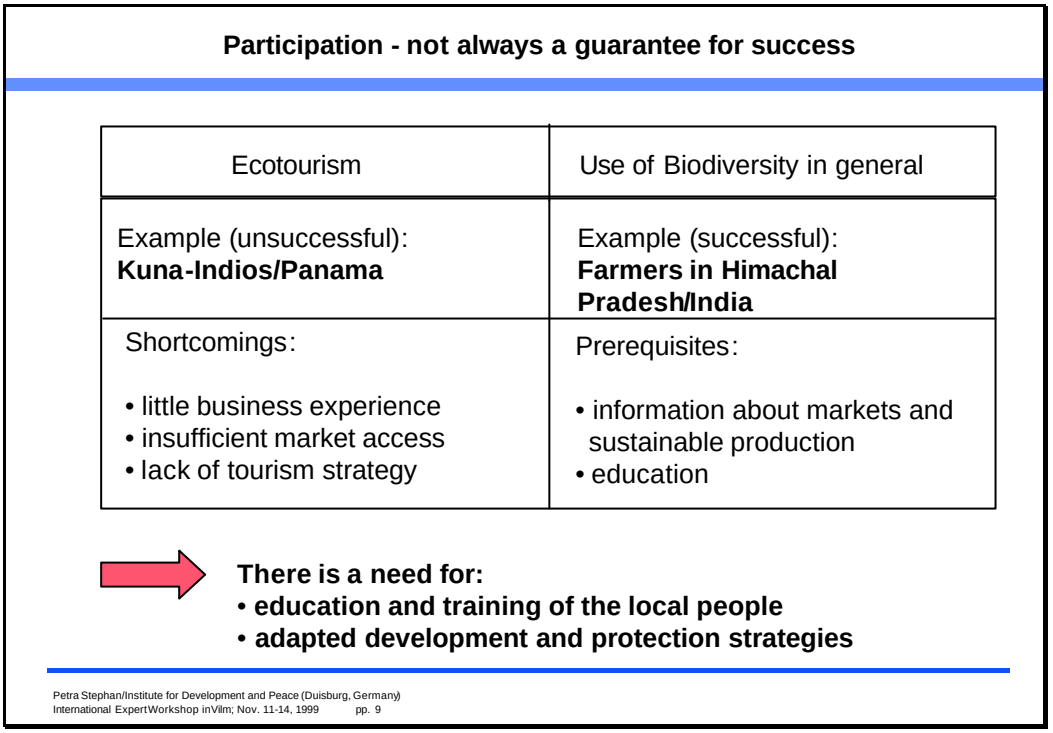

Figure 4: Participation – not always a guarantee for success

4.2 Lessons for sustainable use of biodiversity in general

Lack of information and education along with little business experience of local communities seems to hamper the success of many bioresources-based enterprises. A recent study points out that for rural enterprises relying on non-wood forest products there is a special need for better education and information about markets and sustainable production.[16] For the northern Indian state of Himachal Pradesh it was shown that once the local farmers received better information on nearby fruit markets and on how to determine sustainable harvests they could be convinced to shift from unsustainable field crops to sustainable forest species. The farmers learned that the value of sustainable fruit production per hectare is considerably higher than that of cereals.

But: simply transferring protection and usage strategies which work for ecosystems in the North into tropical ecosystems seems not to be a viable solution. In order to improve education, information and management strategies, indigenous knowledge and traditional techniques have to be combined carefully with modern management strategies. The latter ones have to be adapted to the conditions in southern ecosystems.[17]

5. Profit-sharing – who gets a piece of the cake?

5.1 Experiences

The destinations for ecotourists in developing countries are often located in economically marginal regions. In these areas where goods and services have to be imported tourism often depends on foreign investors and reduced chances for local profits. A significant part of the revenues from tourism flows away from the region either to the capitals in the South or to the industrial countries in the North. In Costa Rica, Nepal and Mexico, for example, less than 10 % of foreign visitors' expenditures remain within the communities next to the protected areas.[18]

A problem which more and more developing countries are facing is the latest trend in the tourism-industry: all-inclusive offers. The tourist pays for everything in advance in the country where he books the trip. Generally, this is a country in the North. Local service companies such as cab services, restaurants and shops loose their opportunities to participate in the tourism business. The 'big money' made with package tours stays with foreign run tourism ventures. The destination sells only its landscape and biodiversity as "raw material" to the tourist companies in the North. This form of tourism can generate only marginal benefits on the local level and completely fails to induce development in the region.

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[16] Taylor, David. A. 1997: Saving the Forest for the Trees. Alternative Products from Woodlands, in: Environment. Vol.39/No.1, p. 35.
[17] Stephan, Petra 1997: Umwelt und Entwicklung – Ressourcenschutz durch Nutzung, in: Blätter für deutsche und internationale Politik 6/97, pp.714 – 722.
[18] Lindberg, Kreg 1998: Economic Aspects of Ecotourism, in: Lindberg, K., M. Epler-Wood, D. Engeldrum (eds.) 1998: Ecotourism: A Guide for Planners and Managers, Volume 2, pp. 87 – 117.

Sporadically, ecotourism can generate considerable profit but only little of this profit trickles down to the locals or is invested in the protection of environment and nature. The public revenues from tourism are often transferred into the national budget. Often it is not secured that an adequate share is reinvested into the development of the region in which the income has been generated. Maasai Mara and Ambroseli, both very popular tourism destinations in Kenya, generate high revenues. Since 1961 both game reserves are under the control of local county councils. Meanwhile, they have gained experience in community-run tourism projects and revenue-sharing schemes. Jobs have been created in the tourism sector. But corruption prevented the equitable distribution of the profits and enriched only a handful of powerful politicians and businessmen. Only few community projects which aim at improving the living conditions of the population are visible. Examples from other destinations could be added.

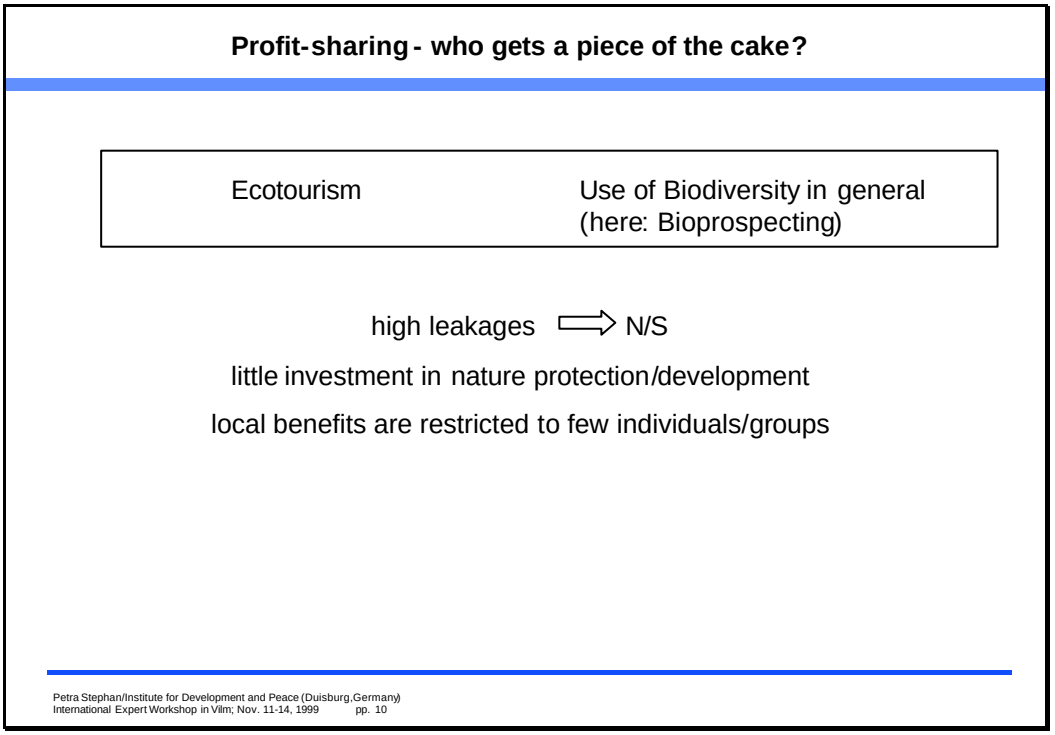

Figure 5: Profit-sharing – who gets a piece of the cake?

"The Local Community" of the tourism destinations is rarely a homogenous group. Usually, one finds a complex net of social groups with varying interests. Even if most of the benefits generated by tourism remain within the community, not everybody will get a piece of the cake. Some of the locals, mostly local elites in association with urban business people, may receive most of the profit and therefore favor the development of tourism. Politically and socially weaker social groups will not get the opportunity to participate equally in the tourism business and will therefore reject this form of usage. Instead of benefitting from tourism, they are often negatively affected by rising prices, land dispossession and food shortages.

The experiences of the Taman Negara National Park in Malaysia underlines this observation.[19] Only 30 % of the workers in the tourism sector of the park are locals from nearby communities. The majority are skilled workers who have been recruited from urban areas. Only communities close to the head quarter of the park receive remarkable revenues from tourism. Other communities hardly get revenues but are negatively affected by rising prices. The 400 indigenous people living in the park are "commercialized" by tour operators to attract tourists. Their traditional rights have been cut back according to the park regulations. A few of them got only unskilled jobs in the tourism sector. This development has created social tensions and envy among the communities and social groups.

5.2 Lessons for sustainable use of biodiversity in general

In most of the cases of biodiversity prospecting, the ‘big money’ stays with international companies in the North and - to a lesser extent - with governments in the South. The earnings are rarely transferred back into the region in which bioprospecting has taken place. Therefore, it often cannot be ensured that the prospecting activities promote conservation and economic development of the region.

The deal between Merck, the world's number one drug company, and the Instituto Nacional de Biodiversidad (INBio), a government-tied NGO in Cost Rica, has been praised as a

"model" for biodiversity prospecting. But the Merck/INBio deal is not a model for all developing countries rich in biodiversity to follow. Merck has paid 1 million US $ in advance for INBio to sample, pre-screen and ship biotic samples to Merck's US laboratories for a period of two years. Part of this money and a share of possible royalties from products patented and marketed by Merck are being passed from INBio to the Costa Rican government for a state-run conservation program. INBio is using the funds to train local people in taxonomy. Compared with most countries that are rich in biodiversity, Costa Rica has a lot of favorable prerequisites: The country has a high literacy rate, an average per capita income of 1,500 US $ and an elaborate system of protected areas. Institutional and political conditions are suitable for such ventures. Other countries such as Nepal, Mexico, Nicaragua, Panama, Indonesia and Kenya are keen to follow Cost Rica's lead in biodiversity prospecting. But they are not as well prepared. Without the adequate technological and scientific capacities, they can only act as suppliers of raw material for the first screening process.[20]

[19] Stecker, Bernd 1996: Ökotourismus: Potential für Schutz und nachhaltige Nutzung der Tropenwälder, Eschborn, pp.17 - 19.
[20] Katz, Christine/Joachim J. Schmitt/Leonard Hennen/Arnold Sauter (eds.) 1996: Biotechnologien für die "Dritte Welt" Eine entwicklungspolitische Perspektive?, Berlin, pp.101 – 103.

6. Conclusions

For the case of ecotourism it could be shown that:

- starting ecotourism on the international market is a risky business;
- economically successful ecotourism projects bear the risk to exceed the carrying capacity of the region;
- the participation of local communities must be accompanied by an adequate education and training of the local people,
- a significant part of the revenues arising from tourism leaks away.

Furthermore it could be shown, that all these challenges which most of the ecotourism projects face, seem to apply to other forms of sustainable use of biodiversity in general as well.

The mentioned constraints regarding ecotourism and other forms of the use of biodiversity lead to the conclusion, that an orientation towards domestic and/or regional markets is more favorable than an international orientation. Sustainable use of biodiversity which is compatible with nature protection seems to be limited to small up to medium sized projects which can be managed within the carrying capacity of the ecosystem. In order to be economically and ecologically feasible a variety of different bioresources should be made use of side by side within a region. Diversification in the usage of biodiversity seems to have the best chances for success since this helps to avoid unilateral dependence which is dangerous for nature and local communities. Ecotourism, for example, combined with wildlife utilization and agroforestry can supplement and support each other. In order to maximize the benefits for the local peoples out of the use of biodiversity their active participation within the projects must be accompanied by education and training.

PRESERVING BIODIVERSITY THROUGH ENVIRONMENTAL IMPACT ASSESSMENT ON TOURISM INFRASTRUCTURE: THE CASE OF WILDLIFE

BEATRIZ GRATEROL M.
Venezuela

1. Introduction

The "return to nature" has been observed in different activities of the people. Natural tourism has become one of these, so during the last years it has become one of the most popular activities for recreation. Many tourists go to different places to enjoy the scenery, landscape, vegetation and wildlife, different cultures and much more. Of course, all those activities demand infrastructure like accommodation, roads, airports, paths, harbor, etc that have to be provided by the destination place, where the tourist goes.

If this infrastructure is not well planned, taking in consideration its location, the resources involved and the possible impacts before they occur, it becomes a big risk to increase the economic cost for society, in terms of loss or degradation of the resources for future generations. This includes the loss of the opportunities for future tourism in the area and the poverty of the local. Thinking about this situation and the chain impacts generated make a logical justification to use a prevention mechanism to plan our natural resources, in order to have elements of analysis for decision making. During the Rio Conference 1992, sustainable development was established as a goal for the future of humankind. In that Conference the Environmental Impact Assessments (EIA) were considered as a tool to guarantee some of the principles.

EIA are defined as a process or mechanism to predict and evaluate the environmental impacts that will be produced by a project. As a result of this EIA, measures can be proposed to prevent, mitigate, control or eliminate those impacts. Thus EIA can be use as a tool for planning because legal-administrative instruments to take decisions already exist. The big disadvantage is that it is very difficult to predict and evaluate which impacts

will really occur as a consequence of a project. This is especially true in biological and socioeconomic systems, where the relationships between different components are very complex and there is a lack of knowledge.

It was reported that habitat perturbation is the principal cause of species extinction, that is considering both the direct destruction of area of habitats as well as the indirect effects of fragmentation of habitats, as silent mechanisms of extinction. Most of the natural areas of the world are now being affected by those activities, especially in tropical areas where different pressure takes place. One of this is also the tourism activity, in order to satisfy tourist request. Wildlife is one of the most important target points for natural tourism, although many actions are working indirectly to destroy it.

2. A method for assessing impacts on wildlife

As a contribution to the EIA a method for assessing impacts on wildlife was developed. With this method it would be possible to predict and evaluated the expected impacts that would occur in the wildlife community of a place as a consequence of a physical perturbation. The impacts are defined as net balance changes between the initial situation and the future scenery with the project.

2.1 Assumptions

Three major assumptions must be made with this Index:

- The impacts on a population of wildlife can be predicted and quantified using the expected physical changes in the affected area and the vulnerability of the species to extinction.
- The selected variables of natural history determine the vulnerability of the species and also are interpreted as the vulnerability of the population to extinction in the affected area.
- Interspecific and intraspecific relationships between species are not considered

2.2 The steps

To apply the suggested methodology the following steps are carried out:

Analyze the project

Before predicting the possible impacts of a project it would be necessary to know about it. That means to know which are the actions of the project that are going to take place (soil perturbation, deforestation, habitat destruction and so on). With this information it would be possible to have an idee about the implications of the project on the area. And of course, the most detailed the project planning, the most exact can be the prediction of the changes or impacts.

Define the study area

To apply the methodology it is necessary to define the area of action, that means the limits where an analysis would be encouraged. Those limits depend on many factors that are most of the time unknown, but the direct and indirect impacts of each action of the proposed project have to be analyzed to estimate the area where the impact from physical perturbation of habitats would be expected on wildlife communities. That point is very important and has always to be reanalyzed considering holistic knowledge, research, experience and information.

Definition and delimitation of wildlife habitat

The methodology is based on a habitat model, so to analyze the situation of the wildlife the assumption is made that it is possible to describe wildlife communities from habitats. That is the reason why wildlife habitats have to be described in the study area, overlaying different physical and natural variables.

Description of the future scenery

To describe the future scenery it would be recommended to overlap the future plan project on the study area. That would make it possible to identify the expected changes, reflected as possible impacted habitats and the quantity of those impacts.

Identification of possible impacted species

Based on the relationship between wildlife-habitat and the impacted habitat from the description of the future scenery. A matrix would be elaborated in order to establish the expected impacted wildlife species.

Determination of the environmental impact value

The environmental impact value describes the expected measure of the net change on the wildlife communities due to physical perturbation of terrestrial habitats. To reach this goal an Index was developed, that is the central point of this proposal, named "Integral Impact Assessment Index" (IIAI).

2.3 The index

The index is divided in two parts, landscape elements and vulnerability of the species to extinction. It calculates for each species the relative importance of the expected landscape variation and natural history aspects. Because the Index uses a homogeneous base, it is possible to compare impacts on different wildlife species in case the same future scenery occurs. A big group of variables were analyzed from literature to establish general conclusions about its implication on species extinction. Common and relatively easily quantifiable variables were chosen. For this reason, the Index reflects a coarse idea of the possibility of the species to extinction, additional analysis can be used to amplify details.

The Index is a product of the grade of landscape perturbation (GLP) and the grade of vulnerability of the species to extinction (GVE):

$$IIAI = GLP * GVE$$

Grade of landscape perturbation (GLP) describes the expected changes in the composition and configuration of the landscape comparing the present with the future situation.

Grade of vulnerability of the species to extinction (GVE): is the level of susceptibility of a species to become extinct because of habitat perturbation. This susceptibility is a natural condition and is evaluated from the natural history characteristics of each species.

The value of the Index is positive or negative and has no dimension. If the impact is favorable for the wildlife population, the value of the index will be positive and vice versa. Higher values of the index represent stronger impacts. The range of the value of IIAI is between -100 and + ∞ . If a species loses the available habitat totally, the value of the index will be -100, if the species will not suffer at all, the index value will be zero.

The grade of landscape perturbation (GLP)

The following equation will be used to evaluate the grade of landscape perturbation (GLP):

$$GLP = \pm \sum_{i=1}^{n} (\Delta AH + PIA)$$

where:

AH = Area of habitat

PIA = Proportion of impacted area

(i) = Number of utilized habitats of each species

(n) = Total number of utilized habitats of each species

Area of habitat

The area of habitat is a part of the landscape composition. This area can decrease or increase depending on the project. In other situations the habitat can be eliminated and/or new habitats can be created. To evaluate this variable, the expected variation of the area for each species must be determined comparing the initial and future situations with the project.

Proportion of impacted area

This value expresses the relative proportion of habitat on the study area that will be impacted for each species.

Fragmentation of habitat (Character of the impact)

Using this information it would be possible to have an element of discussion to define the character of the impact, that means if it would be positive or negative. The fragmentation of habitat is a variable that measures the habitat configuration, describes the continuity of the habitat in the study area, compares the initial and future situation with the project. Although the fragmentation may occur in many forms, only four types of fragmentation are used in this Index. Under the assumption that each habitat is structured homogeneously (vertical and horizontal), and populations are distributed homogeneously in the habitats as well, the impact will be proportional to the variation in area.

A simple model of habitat variation was described to evaluate the configuration of each habitat in the study area. The model analyzes the form of habitat fragmentation and the composition of the habitats. The form of habitat fragmentation depends on the increase or decrease of the area. For example, fragmentation or size reduction or both can result from area decrease. On the contrary, area increase could produce: increase of habitat size, unification of habitat patches or creation of new patches.

The relationship between core and edge area is used to describe habitat composition for the evaluation. This relationship varies according to the fragmentation form. If the core area of a habitat decreases, the species preferring this area will suffer negative impacts, and vice versa. Using this relationship and habitat preferences it is possible to determine the character of the impact (negative or positive) for the investigated species. The core-edge preferences vary according to different species and in many cases are unknown, therefore only the perimeter of habitat was used to determinate core-edge relationships.

The grade of vulnerability to extinction (GVE)

The grade of vulnerability to extinction of a species is calculated by adding different variables. In order to describe the vulnerability six variables were selected: Geographical range area, size of home range, habitat preference, habitat specialization, permanence in the area (resident or migratory) and status of endangerment. Discrete values were

assigned to each variable. The result is expected in values from 1 (minimal vulnerability to extinction) to 9 (maximum vulnerability to extinction).

This results from the fact that the minimum value of the home range size is 1 and the minimum value of the other variables is 0. The maximum value of the home range size is 3 and the maximum value of the geographical range is 2, all other variables are either 1 or 0.

$$GVE = HRS + PH + GR + HS + PA + SE$$

HRS = Home-range size
PH = Habitat preference
GR = Geographical range
HS = Habitat specialization
PA = Permanence in the area
SE = Status of endangerment

Home-range size

The Home range size (HRS) is defined by the comparison between habitat availability in the study area and the total area required for a species to establish a minimal viable population. To determinate the home-range size two variables are necessary: home range and habitat availability. A regression equation between corporal weight and trophic level (from literature) is used to obtain home range values per species.

For example, for mammals:

$$HR\ herbivorous = 0.002\ W^{1.02}$$
$$HR\ carnivorous = 0.022W^{1,30}$$
$$HR\ omnivorous = 0.059W^{0,92}$$

HR Home range (ha)
W Coporal weight (g)

The next step is to calculate the total area requested for the species to establish a minimal viable population (MPV). A minimal viable population represents the minimum number of

reproductive females that a population must contain to keep the population genetically stable in time. Three values were assigned 50, 250 and 500, from which the two extreme values were selected from the literature and an intermediate value was added. To obtain the home range size, the available habitat for each species in the study area is divided into its calculated home range areas. This coefficient (quotient) is compared with the assigned values of MPV. If it is equal to 50 or less the home range size is bigger and the species is more vulnerable to extinction, because it needs a bigger area to establish MPV. When the value is 500 or more, the home-range size is small and the vulnerability to extinction is lower. But when the result is between 50 and 500, the home range size is medium as well as the vulnerability of the species. Minimum value 1 and maximum value 3.

Habitat preference

The habitat preference is defined as the species´ tendency to use edge or core areas of habitat. If the species prefers to use core areas of habitat, it will be more vulnerable to extinction than a species that prefers edges of habitat. Maximum value 1 and minimum value 0.

Geographical range area

The comparative size of the geographical range area is used to determine the vulnerability to extinction of the species. If the geographical range area is local, that means that the species only occupies the study area, the vulnerability to extinction will be very high. There are two other categories, regional when the geographical range area of the species is an ecoregion and general when the geographical range area is more than one ecoregion. Maximum value 2 and minimum value 1.

Habitat specialization

If a species has specific habitat requirements or niches, it will be more vulnerable to extinction than those species that are more generalists, without specific requirements. Minimum value 0 and maximum value 1.

Permanence in the area

It was considered that migratory species are more vulnerable to extinction than resident species. Migratory species depends on two or more habitats to be present in an area,

when one or all those habitats are pertubated it can result on local extinction or isolated of species in an area. Maximum value 1 and minimum value 0.

Status of threat

It is expected that species under pressure have smaller populations. To describe this condition the red list of endanged species can be used, but also other categories, for example pressure from hunting or local commercialization. Maximum value 1 and minimum value 0.

A BRIEF HISTORY OF COSTA RICAN TOURISM AND ITS RELATION TO ITS BIODIVERSITY

RANDAL ARCE
International Tour Director and Tour Guide
Costa Rica

1. Introduction

Costa Rica is indeed known as a new tourist destination all over the world. It was rediscovered when one of her ex-presidents received the Nobel Peace price in 1987.

Suddenly, this Central American "Rich Coast" became a hot spot for ecologically sound tourism. Nowadays, Costa Rica shows many dimensions of the tour business which are worth mentioning. Some can be praised and some deserve further future analysis. On December 22 1999, this country welcomed the millionth visitor in that year. This symbolical arrival places *Tourism* as the most important economical activity of the country. Costa Rica is well known worldwide for its democracy, political stability and its biodiversity.

Nevertheless, tourism in Costa Rica is not an activity that just started to happen a few decades ago. It was during the 1800's when writers, scientists, priests, naturalists, geographers and reporters traveled to every corner of this land. During their travels many described her flora and fauna with different purposes of interest.

Mr. Anders Sandoe Oersted, a Danish naturalist describes this country's beauty and diversity around 1846 :

" ...you penetrate directly to the region covered by oaks. It extends between 7-8000 to 10,000 feet. It encloses 4 dominant species particularly found in Costa Rica, and that were not known before I took them to Europe. Those species are : The Quercus costaricense Lbm., Q. Granulata Lbm., and Q. Refusa. The bushes are very

conspicuous and stand out near the Barva Volcano due to its various forms, richness and beauty..."(1)

In 1820 coffee was exported for the first time from Costa Rica around Cape Hoorn. England and Germany were her best clients. This commodity good started a wealthy economical activity for Costa Rica, at the same time bringing back a cultural neo-classic inheritance of the Costa Rican European´s forefathers (which unfortunately now it is rarely found around the capital city except for the National Theater and very few other infrastructures).

Hundreds of years before, cocoa beans were traded first by the natives, and years later exported and exploited by the new Spanish-Costa Ricans. The 1800's also saw the birth of Costa Rica as a Banana Republic, as well as the cattle business becoming a predominant product to be paid attention to as a means of economical development. The cutting of the highland and lowland humid forest was eminent as all these products were introduced. Agriculture and cattle ranches had then become the most important aspect of the Costa Rican economy. There was even a time in which a politician had even said that the forests of Costa Rica were there only with the purpose of having to be cut down.

Fortunately, through new generations there were true local and foreign visionaries who saw in nature a very important wealth and richness to be protected. Costa Rica forms a biological bridge between north and south America, it has Pacific and Caribbean coast lines. This geographical situation, topography, and climatic conditions have given this country one of the highest ratings of ecosystem diversity per area.

It is home to about 5% of the planet's biodiversity. Costa Rica´s numerous habitats are estimated to have 500.000 species of plants and animals. Research has revealed that only 17% of this country's diversity is known at present. Nonetheless, it is one of the countries in which most biodiversity research has been done.

The first systematic conservation initiatives started in the 1950's. Nowadays, Costa Rica has about 25% of its land protected under different management categories by the National System of Conservation Areas (SINAC).

In spite of the fact that Costa Rica also encounters the cutting of some of her forests and other ecological problems (which are indeed affecting for many reasons the rest of the tropical world); there are entities, NGOs, national, international organizations, ecologists, tour operators, guides and many people who are working hard in many ways to protect and teach about the conservation of this natural patrimony. This in fact is another theme that takes plenty of space and discussion. However, I just wanted to mention it very briefly stating its obvious, controversial and known existence.

In the 1960's the Organization of Tropical Studies opened a research station at La Selva. This reserve is located on the northeastern slopes of the central mountain range. It is adjacent to what is today the Braullio Carrillo National Park.

Except for the visit of some flower generation visitors and backpackers, the 1970's and early 1980's were known as a time for researchers to visit this country. Foreign botanists, scientists, herpetologists and birders came to study this country's nature. The tourism industry was not really part of the Costa Rican priorities in development policies during the 70's. Most accommodations were also very basic and simple.

Due to the research that was done in this country and the many articles that came from these studies; Costa Rica started to be known as an important green spot for scientific research. Places such as Monteverde became known not only as an important Quaker community but as a unique cloud forest sanctuary. Therefore, the word spread around the world as Costa Rica became a new natural destination. It was then that the Costa Rican Tourism Institute started advertising campaigns such as : "Costa Rica is only natural". The government hesitantly began to develop the technical education on the field of tourism.

Although inbound tourism had already started, it became a bit more organized during the mid 1980's and 1990's. New concepts of "cabinas", jungle lodges and hotels started to appear near important spots on which areas rich in biodiversity were pointed out. Places such as Manuel Antonio, Peninsula de Osa had already become attractive spots for tourism arrivals and development.

As mentioned before, the Nobel Peace Price given to former president Dr. Oscar Arias in 1987, placed this country on the spot. As well as several international prizes for conservation and tourism such as the Saint Francis of Assisi prize which Costa Rica received a few years later. In 1990, the Costa Rican soccer team made it to the second rounds in the Soccer World Cup. This allowed several of its players to join well known European teams.

In 1992 Costa Rica was established as headquarters for the Earth Council. All these historical occurrences exposed Costa Rica even more around the globe.

Different kinds of visitors started to arrive in Costa Rica by the 1990's. A large number of well known operators, tour publication staff and tour reporters had come in previous years to Costa Rica in order to compile material to publish articles and photos in their brochures and magazines. This new graphic and advertising exposure as well as personal experiences of tourists and the copied trends of world wide tourism resulted in a continuous increase in the arrival of tourists. Beach mass tourism started to knock on our doors too.

Charters started to appear in Costa Rica about 1989 focusing on the discovery of the province of Guanacaste as the hottest spot for beach tourism in Costa Rica. It was notable that several tour operators of Costa Rica saw this new opportunity as the real golden egg to make more money in shorter time. Projects such as the Gulf of Papagayo, and Barceló hotels brought in the concept of Mega Projects. These plans caused a big controversy which lasted for many years and assumed many different positions. Fortunately, this Mega project has not mass developed yet as the Cancun case, a project which is known for the irreversible ecological disasters it created.

Projects that had intended in the 1970's to build 20,000 rooms in that area have been reshaped to have low density, low rise buildings, along with environmental impact studies, sewage treatment etc. Barceló has now invested $58,000.000 in their new hotels and refurbishments .

Just before the start of the new millennium, Marriott Hotels have also opened a new resort along the middle Pacific coast in an investment that represents $48.000.000. It is worth mentioning that Marriott started to encourage guests to save water by suggesting to leave towels on the rack for later cleaning. It is hoped that big hotels may start greener managements that will create a lower impact on the environment.

Costa Rica had then not only become natural but also became sand, palm trees, sun tanning and piñas coladas, and included marinas and golf courses on the bigger projects.

Canadian, German and other charters started to arrive to the Juan Santamaría International airport as well to the then newly built Daniel Oduber International airport in the mentioned northern province. Several Costa Rican operators were more ready to develop all the coastal area of Guanacaste than their own inhabitants. This was generally a very different economic activity for the locals, although several hotels had already existed for several years. It was usually a more relaxed population of cattle ranchers and cowboys who suddenly became more extroverted and changed their machetes and horses in order to serve as maids, bartenders etc. A biodiversity-rich area of pacific dry forest along with beaches has now been introduced to beach tourism which is considered by some to be a mistaken concept to have been developed within Costa Rica.

The experience of world wide tourism shows that due to their concern to fill hotel rooms, developers might bring a type of tourism that may not be the most desirable.

The diversity of tourists who come now to Costa Rica is very notable. The market that used to be mostly north American has extended to Italian, German, French, Spanish, and very recently British. There are tourists who really want the hard core naturalist experience and may want to stay only close to reserves and national parks. They may prefer small lodges and inns which may also be ecologically sound. There are also several student groups who come to enjoy and learn about nature and at the same time do volunteer work at several national parks or reserves. Their stay may also take place at affordable hotels and lodges.

University alumni and many other interest groups come to Costa Rica with a more structured itinerary that will include talks about nature, tours to the forest, and more comfort

on upper scale hotels and on small naturalist cruise ships. Their itineraries include more leisure time, shopping, and a soft naturalist experience. This also has to do with the fact that most of the guests are senior travelers, although more families and younger groups are also coming for vacation to Costa Rica.

As we take into account the new charters which arrive in the 1990's, beach tourism is also increasing. Planes arrive directly to the northern area of Costa Rica where guests find comfort, an even softer naturalism experience if desired or adventure tourism including canopy tours, floating tours, fishing, volcanoes, horse backriding etc.

Independent travelers also find it easy and safe to travel to Costa Rica. Several of them guide themselves through the country, staying in small cabins, using local restaurants, local buses, renting cars. This allows more money to stay within family businesses. This practice indeed encourages sustainability. Also a lot of them are searching for a more meaningful natural experiences yet stay in style accommodations.

Cruise ship operations in Costa Rica welcome more than 350 ports of call a year. This business started more than 14 years ago. There are different types of tours offered to these 8 hour visitors to the country. Tours range from city tours, visits to volcanoes, to soft walks through transitional tropical forests. As we know, cruise lines have already started a new era on cruise ship shore excursions. They will bring 7 million tourists to travel throughout the Caribbean in the year 2000. It would be of outmost importance to analyze whether or not and how this Megaliner tour operations will affect the sustainability of nature on the visited destination spots.

During the last seven years Destination Management Companies have also made their way to Costa Rica. Several tour operators in Costa Rica have developed the fashion and known "Incentive Department". It is structured in a way that company groups may have the trip of their dreams within a green and a luxurious Costa Rican ambiance.

2. But where does the *"eco"* fit into the tourism business in Costa Rica ?

As Terry Pratt, (Consultant to Horizontes Nature Tours) states in an important questionnaire: *"The role of ecotourism is, more than ever, an educational one." (2)*

A high literacy rate and a well educated population have allowed Costa Rica to become one of the best developed countries within the Latin American area. Having abolished the army in 1948, this small Republic then focused on an public educational system as well as an important socialized medical system.

If developing countries' leaders allowed themselves to educate their people and give them the means to grow as a healthy society, of course also by taking away their military forces, many of the *so called* third world countries might be transformed to enjoy better standards of living. This single and yet important social and political aspect has indeed made a difference in the general Costa Rican population which nowadays is being encouraged to engage in high technological education.

Franking Chan - The Costa Rican/U.S. astronaut - mentioned to La Nación (a Costa Rican news Paper) last December that: *" I have wanted to get Costa Rica closer to high technology, because I believe that that is the future of our country".(3)*

..."Now we can take advantage of the educational system that has allowed us to be well educated. We are to allow that the Costa Ricans will develop in a sophisticated technological ambiance". (4)

I must say that the educational system, as well as the medical still have important aspects to be worked on. However, there are a lot of areas on both fields in which we Costa Ricans feel very proud about and that have worked for us in many different and positive ways. The educational system ought to start a long term campaign in all educational institutions to transform the Costa Rican society again to *a more sustainable people.*

Science has also benefited from the high standards of Costa Rican education. The biodiversity of Costa Rica is an extremely important field that has received a notable push

on conservation, research and investigation. The National Biodiversity Institute (INBIO) has promoted a greater awareness locally and internationally of the value of biodiversity, in order to achieve its conservation and improve the quality of life for the society.

In order to comply with its mission, INBIO has set the following process. First it is to develop a systematic biodiversity inventory, mostly of Costa Rica's protected areas. Secondly, the quest for sustainable uses of biodiversity, and the promotion of these uses. The third aspect is the organization and management of biodiversity information. Last but not least, the generation and dissemination of biodiversity knowledge.

Dr. Rodrigo Games, General Director of INBIO, states the following in one of their promotional campaigns: *"One of the most important ways that Costa Ricans can contribute to improving the quality of life for our society is through benefiting from the numerous opportunities that biodiversity, or, all life forms and their relationships, offer us. The challenge that lies before us now is to demonstrate that society can derive more benefits from nature by conserving it in its wild form, than eliminating it by converting it into pastures or farming lands."(5)*

It is indeed *education*, in relationship with *tourism* and *biodiversity*; that is the tool that must be utilized in order to make all tourists become more sensitive to the meaning of conservation and enjoyment of our natural surroundings.

Conventional tourism has already arrived in Costa Rica. It started to develop many years ago. It seems as if it were the easiest way to benefit from this field. It is here to stay and probably it will increase. This type of tourism has little or no responsibility for the environment. It uses biodiversity as a means to an end without really measuring the great impact that it will reproduce.

Fortunately, Costa Rica also enjoys refreshing business and conservation philosophies which make a difference in the tourism field and the conservation of biodiversity. *Horizontes Nature Tours*, a Costa Rican owned tour operator is positioned in fact as an avant garde responsible, eco/sound naturalist tour operator.

Their mission statement is constantly placed into practice in every tour operation that is undertaken. As an international tour director and as a naturalist guide I have led tours with many tour operators in Costa Rica. Horizontes is indeed the operator which many other agencies should look upon in order to better their own "conventional eco-tourism philosophy". To be transformed in real nature caring business operations.

Horizontes Nature Tours' mission statement reads : *" ...our goal is to make each journey in our country not only a perfect vacation but also an enriching life experience ; on which combines all elements of fun, adventure, learning and personal growth, while promoting a greater understanding of nature and human kind. We try to make it a voyage of personal discovery-of the world around us...and the one inside.*
Each of us at Horizontes believes that responsible travel can help us reach beyond the real and imagined barriers of culture, age and social strata, to find that common ground we share with all creatures on our planet".(6)

Tourism and biodiversity can work together. For Horizontes, education is an instrument to carry the message of natural history and adventure tours. Through educational and yet fun and entertaining tours, guests and personnel will indeed learn to appreciate, protect and understand Costa Rica's tropical environments.

In many of my tours with their guests, I have seen many times tourists at awe as *they learn* about the complexity of the flight of a hummingbird, or the feeling of being enveloped by cold tropical mist at one of our cloud forests. I have also experienced and shared the joy of young foreign students after a long day of voluntary work at a Costa Rican national reserve.

It is through the responsible use of the Costa Rican natural resources that sustainable development comes about. Horizontes' designed low impact itineraries promote conservation and are environmentally responsible. As a member of the *Ecotourism Society* : Horizontes is inspired to follow several *important ecoturist guidelines** in every tour operation. Some of them are summarized and adopted as follows: (Taken from Horizontes' profile).

1. Tours ought to be fun and yet educational experiences.
2. Wholesalers are provided with extensive pre-departure and educational information material on the visited destination.
3. A targeted educated market may also promote participation or donation to important projects of conservation abroad and in Costa Rica.
4. In order to minimize the impact on trails, groups are to be small. This will also add to a better learning experience.
5. The use of local guides at private and public conservation areas is encouraged when possible.
6. Private reserves are used extensible, promoting conservation of areas which otherwise may be used for non re-newable use such as wood extraction.
7. Locals are provided with affordable low costs tours, through a partnership program with Fundación Neotropica - a non profit organization-. This promotes conservation ethic and appreciation of natural resources with their membership.
8. When possible, Horizontes favors Costa Rican owned small hotels, as well as internationally owned hotels which make an effort to be culturally and environmentally responsible.
9. Horizontes promotes and invests in a yearly training tour guide course. This guide and staff retreat entails an immense variety of issues and themes on local culture, environmental issues, first aid, safety, management and entertainment of groups, crisis control, history of Costa Rica, natural history, bird watching field trips and many other important subjects. Last year's course theme was : *Exploring Costa Rica's biodiversity.*

As a guide in Costa Rica with many years of experience, I can state that never have tour guides been so encouraged in our profession. Horizontes keeps encouraging us throughout the years with a professionally tailored tour guide training. The working environment is also the best!

These and many other guidelines and the working ambiance keep reshaping and refreshing our responsibilities as interpretative guides. They are always put into practice almost as a life style. They carry a multiplying factor that will promote a positive impact on society and our surroundings even and hopefully outside the tour business.

Office staff, tour guides as well as students may enjoy their research center and office library with an important collection of nature travel and conservation magazines. Books on many subjects, important newspaper articles and magazines on global and local conservation issues can be also be revised at this resourceful office library.

Their office staff entails 40 experienced professionals, 28 of which are women. As a tour operator who is sensitive to the many aspects of biodiversity, Horizontes also participates in planning councils for “ecotourism”, doing research on this field. They are also members of dozens of national and international environmental organizations.

These before mentioned guidelines are also followed and extended at their main offices in San José. The personnel contributes to environmentally responsible and low impact practices to promote conservation within their downtown office. Some examples are paper recycling, maximizing of natural lighting, natural ventilation, use of internet for fax correspondence, reduction of plastic waste, office staff education on tourism, environmental issues, Costa Rica and the Y2K awareness, etc.

As an ecotourism operator, Horizontes is committed to conservation through tourism. It also contributes with cash and material donations to various conservation and educational-oriented projects for the protection of natural areas, community projects, improvement of national parks, sponsorships for studies abroad and in the country for local guides, beach clean ups, garbage clean ups along high ways, etc.

3. Summary

In summary, a brief history of tourism in Costa Rica and its relationship with biodiversity has been presented. In spite of the fact that it does not pretend to be exhaustive I must say that it gives a general idea of how this industry has developed through many years. Tourism in Costa Rica would be nothing without its biodiversity.

Even in the historical accounts of Columbus in the 1500’s, the natural exotic beauty of this “...costa rica...” is mentioned. In 1846 the Danish naturalist Anders Sandoe Oerstad travels

through Costa Rica to enrich Europe with various specimens of plants that deserved to be collected. He stands in awe at the diversity of this land.

The cultivation of cacao beans during pre-Columbian, colonial times and further years. tobacco, bananas, and coffee in the 1800's on, the introduction of cattle as a mass production activities brought important economical wealth during different times of history. Yet this production changed the tropical landscapes drastically contributing to the destruction of many of the species of the Costa Rican biodiversity.

Scientists were among the first people to visit Costa Rica to do research, write articles and publish them abroad. These new discoveries on endemic species, symbiotic relationships and many other intrinsic aspects of nature were probably the doors that opened an influx of tourism that has now allowed this industry to be the main economical activity of the country. In 1999, this activity produced $976 million USD.

The opening of La Selva reserve by the Organization of Tropical Studies is a great example of the importance that Costa Rica's Biodiversity aroused among the scientific world. Thus it was surely a welcoming gate to many researchers to come to Costa Rica.

The national Biodiversity Institute (INBIO), has nowadays shown to locals and the world why biodiversity is so important to human beings. They have started an important educational program related to tourism called: *INBIOPARQUE : The gateway to Costa Rica's National Parks.* Visitors will experience samples of several ecosystems, bioexhibits with the search and development of new products obtained from biodiversity. People will also learn about the country's conservation efforts, the national park system, other reserves etc.

It seems as if several fields are coming to an agreement in some notable areas; a marriage between high technology, scientists, Costa Ricans and the tourism industry, all depending on this country's biodiversity; all of them interrelated to the high standards of education that the majority of Costa Ricans have enjoyed after the abolition of the army.

Important political, sport, and cultural prices have placed this country on the world news. During the last 30 decades an array of tourists have arrived to Costa Rica. Researchers,

specialized group tours, FIT's (independent travelers), families, Charters, Destination Management Companies, Mega Liners, hard core naturalists, soft naturalists, small cruise ship tours, backpackers etc. All groups with different tastes, needs, and comfort requests. As we discussed back in Germany, sex tourism is starting to affect several Costa Rica's economically disadvantaged children. The fight against it has just started to take shape and place.

Culturally speaking one may gather that a big fair amount of guests from Spain, France, Italy and Canada choose to spend their vacations at the beach with a tint of soft naturalism on the side. Several important British groups are already arriving to Costa Rica with a notorious interest on naturalism, specially bird watching. Furthermore, other operators also manage softer tours for the British market. Germans are usually more adventurous as they might chose to travel on their own and staying at quaint local places. However, the closeness to north America makes US and Canadian citizens the biggest market of visitors to politically stable Costa Rica.

Horizontes Nature Tours is a role model example of an excellently managed ecotourism operator. Its focus on tourism for conservation, high standards of service, their professional office and field incentivated staff, their conservation and business philosophy has given this agency a well deserved respect locally and internationally. Horizontes was also honored to be selected as Runner-up for the 1997 Condé Nast Ecotourism Award.

Still there is so much to be said about Costa Rica's experience on tourism. However time and space beckons.

Several neighboring countries look at Costa Rica to give their positive or negative criticism on the development of this industry. Even several advertising campaigns of theirs have adopted several ad ideas that had helped this country and / or operators to promote former tour campaigns or brochures. Costa Rica's neighboring republics are aware of the economical wealth tourism may bring to their nations.

There are parties in CANATUR (The National Chamber of Tourism) who are interested in even bringing into the country about 3 million or more tourists a year, a number which is

incredibly unsustainable. Costa Rica's main source of attraction to visitors is its biodiversity and the carrying capacity that nature can take will be of course surpassed. It is already surpassed in a few areas. This possible action will rapidly deteriorate our only treasure if such a large number of visitors were to come to Costa Rica in a year. Costa Rica ought to target upper scale tourism and not mega tourism. Quality versus Quantity. The worldwide tourism experience continues to show the drawbacks that mega tourism produces in the environment of developing countries. Once the source is overexploited it is left alone and deserted along with its people.

On the other hand, the Costa Rican Tourist Bureau must get out of its lethargic state. It must work professionally and with a long term planning horizon that will indeed encourage the development of the tour industry. They ought to take seriously into account that biodiversity is to be respected, protected, taken care of, seriously accessed and surveyed. It is very visible that at this point into the year 2000, humankind, most entities, fields and developers take advantage of nature. Nonetheless, very few give something back to it in order to sustain it.

Costa Rica's treasure is more admirable than any restorable artistic trend throughout history. Once nature is destroyed there is no way we can get it back along with its genetic value. It is not only a matter of asking the state government to give us better airports, better roads and signs to get there, better security and safety. *In the end all of them are constructed with the tax payer's money.* It is also a matter of understanding that nature has taken millions of years to shape itself, that there are intrinsic relationships admist animals, plants and insects, that the genetic content is invaluable, that nature is greatly vulnerable. Mr. Julio Corvetti a reporter to La Nación newspaper writes on an article titled : *Inhabited Forests*: *"Men* (humanity*) usually take everything to themselves; whereas animals are givers".(7)*

Several parties involved in the tourism industry in Costa Rica use the term "sustainability" as if it were only a trendy word. Nevertheless, we must all come to comprehend that the meaning of it ought to be understood from the perspective of the definition that the World Commission on Environment and Development (WCED) has mentioned in the Brundtland-Report of 1987 (Our Common Future, Oxford, 1987). This definition reads as follows :

“Sustainable Development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Mr. Carlos Manuel Mora, a young Costa Rican investigator, mentions in his book *Sustainable Tourism in Costa Rica* the importance of inviting quality tourism rather than quantity tourism.

“ Definitely, such tourism, must contribute to a sustainable development of the country and of course that it will benefit the peoples who live in or near the visited areas. It also must be beneficial to nature conservation. For all tour audiences - foreign and local- it must be a gratifying experience, highly beneficial on the educational, inspirational, and personal satisfaction aspects, with all the evident aspects of what we call today quality of life”. (8)

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Session 2: Tourism and Protected Areas

LEGISLATIVE ASPECTS FOR REGULATING TOURISM IN PROTECTED AREAS IN ESTONIA

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1. Introduction

Estonia has a great potential as a nature tourism area. Leaving aside the vast number of one-day tourists from Finland in Tallinn, the majority of tourists leaving the cities have contact with nature in one or another way. It is important to note that internal tourism has been developing rapidly in recent years and nature propaganda could play an important role there. One possibilty to familiarise tourists with Estonian nature and to advocate sustainable development among them is nature tourism in protected areas because protected areas (with personnel) can provide competent guidance and easier access to natural values.

There are over 300 protected areas in Estonia, the total coverage is 520 000 ha (11,5% of the whole territory).

2. Estonia´s legislation on protected areas

In 1994 an Act on Protected Natural Objects was passed which establishes the procedure for taking natural objects into protection, determines the nature of that protection, and determines the rights and obligations of land-owners, land-users and other persons in regard to such objects.

A protected area is an area taken into protection which is maintained without the influence of human activities or used according to specific nature conservation requirements, within

which natural monuments and natural-historical monuments, plant, fungi and animal species, associations, ecosystems, landscapes, and their diversity are protected, studied and publicized. Protected areas are of one of the following types: national park, nature protection area, protected landscape (nature park).

All land and water within a protected area is divided into several different zones, according to different protection goals. The restrictions and obligations imposed upon these parts are drawn up in the form of Protection Rules by the Government of Estonia. At the moment there are 100 conservation areas with new zoning and Protection Rules according to the Act.

A zone of a protected area is one with a special protection regime. The types of zones include strict nature reserves, special management zones, limited management zones. The restrictions and obligations to be applied in the different zones of a protected area are fully or partly, permanently or seasonally (temporarily) established and are set out in the Protection Rules. According to the Act tourism on protected areas is controlled by these rules.

3. The example of the Tolkuse Nature Reserve

Here I will try to give a more concrete picture of how the Protection Rules can regulate tourist activities in Estonia. As an example I have chosen the **Tolkuse Nature Reserve**.

There can be two types of management of protected areas in Estonia. 17 protected areas have their own personnel, other 300 areas are governed by 15 local authorities. Tolkuse Nature Reserve belongs to the second type of protected areas - there is no special personnel for it. But as this is the situation for the majority of protected areas, this case should be more important to discuss. As the majority of Estonian people prefer to travel on their own account, without any guidance, there is a problem with how to follow the rules. There are only information boards regulating different activities and providing all kind of information about the protected area, including information about restrictions and bans.

Information about restrictions on public access to the reserve is important to ensure that the negative impact of recreation is reduced.

Tolkuse Nature Reserve is situated in the south-western part of Estonia, on the main road of Tallinn—Riga. The total area of it is 8100 ha. It consists of 8 special management zones and 1 limited management zone. The general objective of this area is the preservation of a landscape complex of bogs, dunes and the coastal area, the protection of endangered plant and animal species and their habitats. Thanks to the good location the number of tourists visiting this place is rather high.

As the area consists of different habitat types, there are also different subobjectives and consequently different restrictions for each zones and for tourism.

For the whole territory of Tolkuse Nature Reserve the following rules (relevant in the aspects of tourism) were established:

- Private roads and paths situated within special or limited management zones of a protected area or leading to a natural monument are open to public use from sunrise to sunset, during which time the owner of the land must guarantee public access to the protected natural monument. Public access to the yard of a building which is the site of a protected natural monument may be subject to conditions determined by the owner.
- Public events under 50 persons are allowed but when the number is over 50 the permission of a Manager is needed - so the Manager regulates where the number of people doesn't affect the biodiversity and also where is better to avoid these public events. (The critical number can be established in some places lower than 50, the minimum can be even 10).
- Making fire and pitching a tent is allowed only on specially preparated and marked places.
- Driving a motorized vehicle and riding a bicycle, and also parking is allowed only on specially preparated and marked places.
- Hunting tourism is forbidden (in all protected areas in Estonia).

- Fishing in the river Rannametsa is forbidden during the spawning period of several fish species (Lampetra spp.; Salmon spp).

3.1 Special Management Zones

A **Special Management Zone** is a land or water area protected in order to preserve resulting or created natural and semi-natural associations.

Mõtuse Special Management Zone

The objective is to protect the territory of capercaillie (*Tetrao urogallus*).

As human presence in habitats of rare species and the resting sites of migratory species is prohibited where needed (except for the purpose of scientific research, enforcement or rescue, in accordance with special procedures), a temporary (seasonal) restriction is established here. Human presence is forbidden in this zone during capercaillies' breeding period February 1—June 30.

Soometsa Special Management Zone

The objective is to protect the natural forest habitat and the protected plant species (*Lunaria rediviva*, *Allium ursinum*).

There are no additional restrictions but at the same time no special exhibits for tourists as it is not very easy to get to this place. In case there should be some interest, nature trails will be established.

Maarjapeakse Special Management Zone

The objective is the preservation of natural developmental processes of a bog area.

No tourism activities are propagated here, but at the same time no additional restrictions are established. A good area for the local people to gather bogberries.

Tolkuse Special Management Zone

The objective is the preservation of natural developmental processes of a bog area, to protect the habitats for birds (*Bubo bubo, Tetrao urogallus*) and plant species (*Nuphar pumila*).

A part of the bog has been chosen to be introduced to tourists - a nature trail is built here to exhibit beautiful bog pools. There are also litter bins along the trail. Walking on this trail helps to protect the vulnerable bog surface from treading, leads people away from the nesting sites of endangered bird species and at the same time provides a safe path for tourists.

Luidete Special Management Zone

The objective is to protect vulnerable associations on sand dunes, the breeding places for birds (*Haliaetus albicilla*), habitat for *Lacerta agilis* (protected in Estonia) and the relief as a whole (as there can be seen different developmental stages of the Baltic sea).

There are several nature paths here; also some wooden nature trails are established to protect vulnerable surface of dunes from damaging, directing people away from the places of the highest vulnerability. A sightseeing tower will be established where one has a picturesque view to the sea and the peatbog.

As both Tolkuse and Luidete Special Management Zones are located at the main road, they together form the most important area for recreation in this region. Within a few hectares of this area many characteristic ecosystems, landscape types and geological formations found in Tolkuse Nature Reserve are represented. For this reason this area is also well suited for providing general knowledge of the nature reserve.

Pikla Special Management Zone

Sooküla Special Management Zone

The objective is to protect the habitats for *Bufo calamita*.

As this area is not very attractive for tourists, there are no special exhibits.

The coastal zone (consists of different parts)
The objective is to protect birds' nesting, breeding and maturation sites and migration routes; and also endangered plant species (*Gladiolus imbricatus, Angelica palustris, Thalictrum lucidum, Orchidaceae spp.*) .

This is an attractive area for tourists fond of bird watching and like to enjoy the view of the sea. There are no additional restrictions. However, there is a threat during the birds' nesting period that some people want to gather the eggs from nests (it has happened in a little isle in Estonia that the eggs of *Melanita fusca* were gathered away by such a tourist), but as this happens very rarely and as this type of tourists usually travels alone, there is no need to establish special restrictions to the whole zone. A similar threat exists in the case of orchids and other rare plant species. In general cases the Manager regulates the people's movements in this zone

3.2 Limited Management Zones

A Limited Management Zone is a part of a protected area used for economic purposes where restrictions, established by the authority which has taken the object under protection, must be taken into account.

In Tolkuse Nature Reserve the whole territory which is not a Special Management Zone belongs to the Limited Management Zone.

As Limited Management Zone the area is not as vulnerable as the Special Management Zones (usually there are not any highly protected species in Limited Management Zones). There are less restrictions for this zone and management for tourism activities is also more flexible.

During the migratory period the area of that zone is used as feeding and resting place (*Cygnus bewikii, Branta leucopsis* etc.). The main restriction in this zone is the ban of motorboats.

3.3 Control

- The manager of the Tolkuse Nature Reserve (Local Government of Pärnu County) is responsible for everything that happens in this area. Management includes ensuring protection, enforcing and organizing the enforcement of the relevant governing conditions, and participating in ensuring the protection of a natural object situated on private land.
- Environmental Inspection is also a controlling body (for all Estonian environmental objects).
- The owner or user of land located within a protected area or containing a protected natural monument must report to the Manager of a natural object all factors which cause or may cause damage to the natural object or affect its state.

3.4 Problems

- Settlement of litter bins is regulated by the Manager. It would be necessary frequently to collect rubbish left by litter louts. Even though different initiatives such as the setting up of rubbish bins and information about the problem will be initiated, it must be expected that visitors will continue to leave rubbish in the nature. It is important to remove this rubbish continuously, as litter seems to attract litter louts.
- Biking on the dunes is damaging the vulnerable surface. Not enough control.
- The current policy has resulted in motoring everywhere in the forest where it is possible to enter with a car. This causes unnecessary disturbance of the wildlife and makes it difficult to limit the recreational activities to suitable areas.
- Natural forest paths are established to guide the visitors through some typical ecosystems and landscape elements of Tolkuse Nature Reserve. As it is expected that many visitors will use this path, measures must be taken against damage to the areas around the path.
- There is a problem due to rotten wooded pathways.

Monitoring of human impact within the reserve should be carried out. It is important currently to evaluate wearing down and to take precautions against it, where and when it exceeds the acceptable level. Moreover, monitoring is needed to adjust the protective precautions of rare and endangered species.

GLOBAL ISSUES FOR PROTECTED AREAS AND NATURE-BASED TOURISM: CASE STUDIES OF PARTNERSHIPS IN AUSTRALIA ADDRESSING SOME OF THESE ISSUES

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1. Sustainable Tourism

Much has been written about sustainable tourism in recent years. Tourism/travel/recreation is one of the world's largest and fastest growing industries. It is in fact not an industry at all but a series of industries that collectively facilitate and service the unprecedented global, national and local movement of people for recreation, entertainment, sport, education, cultural, religious, medical, family and business purposes. Together with economic importance it also has massive impacts - both positive and negative – and implications for the social and environmental well being of the planet. For this activity to be part of sustainable development imperatives, there needs to be balance between the demands of economic viability, environmental stability and social and cultural compatibility at all levels from the global to local, in all facets of its operation.

In 1995 the World Tourism Organisation (WTO), the World Travel and Tourism Council and the Earth Council adopted a joint declaration "Agenda 21 for the Travel and Tourism Industry: Towards Environmentally Sustainable Development". It is a draft action programme for the tourism industry and includes the following principles:

- tourism should help people live a healthy and productive life in harmony with nature;
- tourism should contribute to the conservation, protection and rehabilitation of ecosystems;
- protection of the environment should be an integral component of tourism development;
- tourism should be planned at the local level and allow for the participation of the citizens;
- tourism should recognise and support the identity, culture and interests of indigenous peoples;

- international agreements to protect the environment should be respected by the tourism industry (WTO, 1995).

Of particular relevance to the objectives of the Convention on Biological Diversity (CBD) is nature-based tourism and recreation which is directly dependent on natural resources in a relatively undeveloped state. It often focuses on protected areas, and brings increasing numbers of visitors to these biologically valuable sites. Visitor impact management in protected areas poses a major challenge in the realisation of sustainable nature-based tourism.

Goals and guidelines for tourism which aim to protect and enhance environmental and cultural assets, enrich the human spirit, and improve the quality of life for the host and the visitor can contribute to sustainable tourism (Bushell,1999). Many fora of national and international conservation agencies, tourism organisations, researchers and governments have developed various goals, codes, guidelines and declarations on different aspects of sustainable tourism. Despite this, the practices of this global industry have changed little. Systems of management and control are not often equipped to predict, measure or monitor often complex, subtle and cumulative impacts on bio- or cultural diversity, in either the short or long term. The environmental costs of tourism development are typically externalised. Given that there are already many documents relating to guidelines for sustainable tourism, what are the key issues, and what is still needed to achieve the goals? In particular, this paper focusses on the issues for protected areas of nature based tourism.

2. Issues for Protected Areas and Nature-based Tourism

For nature-based tourism to be successful it depends on high levels of environmental quality and suitable levels of consumer service. Much of the nature-based tourism available world-wide is in parks and other forms of protected areas (Eagles,1999). In the USA between 10% and 24% of all visitation in 1995 was directly related to protected areas (TWAC, 1996).

Globally the land area covered by the world's parks and protected areas has increased dramatically in the past 30 years. In 1996 30,361 parks covered an area of 13,245,527 km^2 in 225 countries , and 8.84% of the total land area of the planet (Green & Paine, 1997). 86% of these parks are in IUCN Categories II - VI) These are:

- Category I Strict Nature Reserve/Wilderness Area: protected area managed mainly for science
- Category II National Parks : protected area managed mainly for ecosystem protection and recreation
- Category III Natural Monuments: protected area managed mainly for conservation of specific natural features
- Category IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- Category V Protected landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- Category VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

(Sheppard, 1999) (adapted from IUCN, 1994)

However, in many parts of the world protected areas are seen as marginal to other areas of policy, such as economic development and agriculture. Protected areas need increased support at all levels, and need to be seen as a credible sector in their own right. Key to this is identifying and communicating the many values and benefits that protected areas offer society (Sheppard,1999). The relationship between tourism and protected areas can be useful in this process. Increasingly parks are being identified as major attractions for visitors, both domestic and overseas. Although tourism benefits associated with protected areas can be significant, it is also important that tourism/visitor use is planned carefully and does not destroy the natural resource on which it is based. While there are plenty of examples of good practice, there are many examples around the world of high tourist use of protected areas, coupled with poor planning, which have caused significant environmental impact. A key future challenge is how to more effectively manage visitor use of protected areas in a way which allows appropriate use and enjoyment, while not destroying natural values (Sheppard, 1999). Tourism as a complex global activity

requires planning and management to be conducted within the framework of ecological needs, but also the economic, political and social realities of both the host destination and the range of source markets also have to be considered. Ensuring nature comes 'out on top' is seen to be very difficult once these other considerations are factored in (Robertson, in Figgis,1999:13). This requires far greater dialogue and co-operation between government agencies and the tourism industry.

In many parts of the world the private sector is becoming increasingly involved in protected areas. There are limited successful examples to date of private sector management of protected areas but this appears to be an area with potential, though not without pitfalls. Care is needed to ensure that conservation objectives are not subsumed by profit motives. It is also a concern to many in conservation that very few private companies currently have the prerequisite expertise and resources necessary for effective conservation management. Non-government organisations (NGOs) are becoming increasingly involved in conservation. The NGOs have an important role in the establishment and management of protected areas, and frequently have strengths in working with local communities. An attitude of co-operation, partnership and mutual benefit is essential. Additional to finding alternatives to government support for protected areas is the need to improve existing government structures and procedures. The amalgamation of conservation orientated departments and mechanisms to improve inter-agency co-operation and co-ordination are being trialed in several countries. An interesting approach is the establishment of parastatal bodies. Such agencies, as those established in Africa, have a greater level of independence and autonomy than traditional government agencies, especially in relation to their ability to generate and retain revenue from visitors (Sheppard,1999). The building of broader protected area constituencies is seen as priority by many conservation agencies.

"Parks do need more defenders and advocates and this will mean avoiding the siege mentalities and taking positions that all humanity, apart from the environmental movement, is untrustworthy. It will be incumbent on the current advocates to forge sound relations with conservation-minded rural groups, indigenous communities, scientists and the ***genuinely*** *conservation orientated tourism industry to broaden the base for the defence of protected areas".*
(Figgis 1999:14).

Whilst the involvement of a broad range of stakeholders in planning for sustainable use is commendable it is anything but straight forward. One of the many simplifications and myths of sustainable tourism in the literature, is that seeking the involvement of 'host community' will ensure that natural and social heritage values are protected. This is a naive concept. Host communities are not homogenous; they are not static; they may not necessarily have great concern for the integrity of their natural, built or social environment; they will have a wide range of values and ethics; and they are normally very divided in their opinion about all things, including the conservation of protected areas and about tourism. So the broad principle of "consulting local communities" to ensure a more sustainable form of visitor use is not sufficient. Indeed some of the most vocal local lobby groups have quite specific agendas, such as groups who champion human use over nature conservation. These include industries and recreational groups who demand access to exploit resources in parks purely for human profit or enjoyment, such as mining, logging, hunting, off road vehicle enthusiasts. Most of these people share totally anthropocentric views of the world, and strongly believe that all areas should be available for unconstrained human activity (Figgis,1999). Processes of consultation which allow for a wide cross section of groups and interests, and encourage participation are needed. But, consultation of host community is neither simple, cheap nor guaranteed to achieve sustainable use objectives.

Together with issues of host community, are issues of "traditional use" of biological resources, land rights, and ownership. The rights of indigenous people is an equally difficult and complex area, also often over simplified and romanticised. Now recognised as extremely important, indigenous knowledge is tied to concepts of sustainable land use. Like many indigenous peoples, the Butchulla aboriginal people of Fraser Island North Eastern Australia, have a local law "what is good for the land comes first". The Kogi people of Sierra Nevada live by what they call the 'Law of the Mother', that regulates human behaviour in harmony with natures cycles (Kempf,1993). Throughout the world there are many examples of indigenous knowledge leading the way in ecological thinking. But, it is also true that where indigenous people have been dislocated from their culture and lands, urbanised and industrialised, that they are not innately more compelled to environmentally sustainable ways of doing or thinking.

The debates over appropriate use of protected areas and models of management have also been linked to efforts to restore and address the land rights of indigenous peoples. Indigenous people around the world are frequently amongst the most disadvantaged, both socially and economically (Figgis,1999). In order to discuss the benefits and disadvantages of people living in or near or using protected areas and participating in their planning and management the IUCN ran a workshop on 'People and Protected Areas' at the IV World Congress in Caracas in 1992 (Kempf,1993). The Caracas declaration called upon governments and appropriate organisations to:

support the development of national protected area policies which are sensitive to customs and traditions (and) safeguard the interests of indigenous people.

In the struggles of a number of indigenous peoples to save their forests, such as in the Amazon, and in Borneo they have looked to nature-based and cultural tourism as a means of regaining ownership, control and financial independence. And the increasingly discerning ecotourism markets are very interested in supporting indigenous peoples. Careful consideration is required in planning and developing tourism activities that involve traditional communities and their role and rights in protected areas. It is important to ensure prior consent, participation in all the processes, respect of traditions, and benefit-sharing. Equally important is the taking into account the different interest groups within these communities, which are themselves far from homogenous and agreement on many issues, including of conservation and/or tourism.

The consideration of the indigenous peoples rights to 'protected areas' has also served to remind us that the concept of' 'nature' is socially constructed. For example, many of the areas the western world considers wilderness, have for centuries been home to indigenous people. For thousands of years, the Anangu, an aboriginal desert people of central Australia, have flourished in what to nonaboriginal people seems a place of total desolation. To the Anangu, this arid land is home, the source of their spirit and a place of enduring beauty (Connell,1993). The concept of wilderness as an 'untouched or untamed land is mostly an urban perception, the view of people who are far removed from the natural environment they depend upon' (Gomez-Pompa & Kaus,1992:273). A vast 'undisturbed' area, with unique wildlife species and spectacular scenery, is the typical popular image associated with protected areas, but these represent different values to different people. The same area may be regarded by conservationists as an ideal habitat for rare species;

as having exceptional scientific merit for a biologist or botanist; high economic value to a forester, a great place to go shooting for a hunter and of significant spiritual meaning to another person. Protected areas are a social space, socially conceived and preserved (Ghimire & Pimbert,1997:5). This 'construction of nature' varies in time across cultural, political and social beliefs and economic status. This influences the values placed on nature and what is regarded as priority for protection and what is acceptable use (Bushell,1999; Figgis,1999; Staiff, Kennedy & Bushell,1999).

One of the social realities is the priority given to economic values of nature. Nature-based tourism is increasingly important because of the potential to contribute to local and national economies. The economic benefits of park based tourism can far exceed government expenditure to manage sites (Driml & Common, 1995; Task Force on Economic Benefits, 1998). Australia receives over $A2 billion in expenditure from eight national parks - at a direct cost to governments of some $A60 million. In Costa Rica, about $US 12 million is spent annually to maintain national parks. In 1991 more than $US 330 million was generated through 5000,000 overseas visitors (Task Force on Economic Benefits, 1998).

"It is ironic that while humanity has relentlessly decimated wildlife and natural lands, it has simultaneously grown to value them more highly. Nature tourism is a growing sector of the huge global industry. In Australia most of the $A26.7 billion tourism industry is based on the attractions of the Australian environment, the key elements of which are protected areas."
(Figgis,1999:46).

Nature-based tourism also importantly creates the opportunity to provide incentive for nature conservation.

If protected areas are to be valued for their economic potential then a major issue is that most of the world's protected areas charge low entry fees and use fees. Typically these fees cover only a small portion of the cost of protecting and providing the features on which park visitation depends (Van Sickle & Eagles,1998; Eagles, 1999). Many pricing policies for protected areas were developed when the 'public good' of protecting nature was considered a benefit to society, and therefore paid for by society by public taxes (Eagles,

1999). However, increasingly private operators are making their businesses out of guided trips to parks, and globally governments are withdrawing from funding and looking to greater cost recovery, requiring that parks need to become more financially viable and utilise visitor interest in parks as a source of conservation revenue (Eagles,1995b; Staiff et al,1999).

Parks often supply the most important component of a nature-based tourism experience, but frequently capture little of the economic return (Wells, 1997; Driml & Common, 1995; Van Sickle & Eagles, 1998). Low entry fees and use fees are often the result of many factors, both social and political, including:

- the existence of centralised budget allocation processes;
- issues of equity and access for all;
- political concern about increases in park fees upsetting local constituency;
- issues relating to the continued belief that society generally should pay for protected areas;
- pressure from conservation groups to keep visitation low;
- lack of planning for levels of visitation ;
- lack of research into appropriate methods of determining reasonable pricing policies;
- lack of visitor management competencies amongst park agency staff;
- lack of partnerships between private operators and park agencies;
- level of visitor services and infrastructure;

(Eagles,1999)

If park management does not keep earned fees and therefore sees little incentive or benefit in comprehensive fee collection and pricing, the resultant attitude can cause minimal interest in park visitor management. This means issues like knowing visitation numbers and patterns, knowing the demographic profile of visitors; determining repeat visitation, the length of stay; and visitor satisfaction are not seen as a priority. Visitor satisfaction and service quality can suffer when financial return from visitors is not tied directly to financial operation of a park. Market pricing and a competitive environment will not only create a more commercially viable operation, release funds for non-commercial conservation but also provide managers and other stakeholders with incentives to improve

their performance and that of the park as a whole (Task Force on Economic Benefits, 1998). Central budgetting also denies park managers flexibility to manage and run the operation as a business and to be commercially competitive. Lack of data on park visitation and its economic contribution leads to severe under representation of its importance, compared to other economic activities such as forestry (Eagles,1999). It also makes sensible visitor planning and management impossible. Thus, instead of proactively determining appropriate use and visitation numbers, the process is reactive, responding to problems and issues as they arise, or as they are perceived. This is unlikely to result in optimal conservation outcomes, or visitor satisfaction. Additionally, experience throughout the world tends to indicate that the negative impacts of tourism on park resources is influenced more by inadequate visitor planning, management and staffing than it is by the actual visitor numbers. Concern also stems from a lack of visitor management related skills amongst park staff. The majority of park agencies are strong in scientific/natural resource management. Most are weak in tourism/visitor related competencies, and learn these skills on the job (Eagles,1999). This is a good reason for park staff to develop partnerships with the better qualified and the more ethical of their local tourism operators, who will usually have greater expertise in marketing and product development. The concept of 'carrying capacity' despite never being successfully operationalised has tended to give people the notion that there is a direct relationship between numbers and impacts. However, parks competently managed and properly resourced with suitable infrastructure, have been demonstrated to be capable of creating high levels of economic return with minimal environmental impact (Eagles,1999). Many park service staff remain divided on the concept of allowing a site manager to operate under commercially competitive conditions, fearing that the economic imperatives will place increasing pressure on the conservation mission and values of these places (Eagles,1999). Conservation organisations generally are very cautious about the impacts of allowing natural resource managers to think like business people. However, research shows that using the concept of total economic value, it is possible to identify the goods and services or "products" protected areas offer, which are suitable for raising revenue for the conservation of protected areas. With proper management the "products" can be sold repeatedly without diminishing its value. Managers need to have business plans to asses and realise the potential benefits to ensure the long-term financial sustainablity of protected areas in their care (Task Force on Economic Benefits, 1998).

Associated with park fees is the issues of equity for local people. Should local tax payers pay the same as visitors from elsewhere? This is most contentious when the area of a park or reserve has only fairly recently been gazetted as a protected area, such that locals may already feel alienated from land that either traditionally or historically had been considered a community resource. Additionally local communities put political pressure on policy makers to oppose recommendations when increases in park fees are otherwise totally justified. A large differential between fees charged for locals and visitors creates many tensions for local tour operators. Another aspect of equity is that everyone should be able to enjoy regular access to natural areas. Like other areas of public policy such as health and education there are many issues about the user pays approach, which denies access to many in lower socio-economic groups. In order to address equity issues for a wide range of user groups like locals, senior citizens, pensioners, school children, family groups, members of park associations - some places have established such complex pricing structures that park staff find it totally unmanageable . These and other factors mean park fees continue to be kept below a level that enables the park to meet the demands and needs of visitors for infrastructure, or the maintenance of existing infrastructure such as boardwalks, paths, signs, seating, toilets, and makes the task of visitor impact management even greater.

Woven into the equity issue is the belief that society generally, not just users should pay for protected areas since everyone derives many benefits. The values of protected areas to society can be summarised as contribution to biodiversity conservation, which in turn benefits nature conservation, health, agriculture, industry and foreign affairs; contribution to watershed protection assisting in natural resources and water supply management; assistance with storm protection and reduction in natural disaster damage; the provision of a major asset of the tourism industry, and consequently economic regional and local development; contribution to local amenity which supports local government in the provision of healthy environments, open spaces and recreational opportunity, all contributing to quality of life and public health; provision of forest products which support forestry, local communities and economic development; soil conservation which assists agriculture and natural resource management; the provision of large areas for carbon sequestration, contributing to energy policy and foreign affairs; provision of research and education

facilities and field stations for the advancement of science, knowledge and education at all levels; and the maintenance of cultural values contributing to community health, wellbeing and sense of place (adapted from Phillips,1998 in Sheppard,1999).

Another area requiring attention is research. Protected area managers encountering difficulties balancing the demands of conservation work and visitor management require more objective data on visitor use, impacts, and visitor needs on which to base management decisions. The lack of reliable information and appropriate methods for example, of determining reasonable pricing policies requires research needed to assist sound planning. Likewise, there is a need for more rigorous examination of the effectiveness of interpretation strategies and approaches. If a primary purpose of increasing visitation to parks, is to encourage the development of a robust conservation constituency within society then it is imperative to evaluate the impact/effect of the conservation messages on park users. To date much is done to describe the most effective type of sign, or the most utilitarian approach in reaching audiences of different ages, but it appears not a lot of effort has gone in to understanding the different ways various people construct and relate to nature, and how this understanding can inform the interpretation/education programs. Most material dealing with conservation education presumes that biodiversity concepts and biological science understandings of nature serve as the most obvious and effective vehicle for this conservation education. These assumptions need to be challenged and the approaches validated to ensure the maximum benefit for conservation purposes from visitor use of protected areas (Staiff et al, 1999).

In conclusion, the WCPA believe that tourism will be one of the top three issues for protected areas in the next century. This significance needs to be recognised by protected area agencies in their policies, programmes and internal resource allocations. Better partnerships are essential, particularly between protected area managers and the tourism sector (Sheppard, 1999b). The partnerships are necessary in areas of research and monitoring, training, and the establishment of viable local networks that share a common vision of protecting the well being of natural, social and cultural heritage. With the establishment of tourism and protected area partnerships benefit sharing will continue to be a vexed question, in relation to who has rights to expect financial returns, who has invested intellectually, economically, and physically to make a project profitable? How

much of the success is due not to these direct contributions but to the 'value' placed on the cultural and natural heritage of a place and how can benefit sharing equitably address all the stakeholders?

The following case study vignettes serve to provide some examples of the possibilities of partnerships and the benefits that can flow to both the resourcing and the enhancement of the conservation effort of protected areas through appropriate visitor use. Many guidelines and strategies currently exist. The challenge is to ensure they are implemented, evaluated, improved and that tourism becomes a tool of conservation management rather than national parks being used merely as sites of tourism business.

3. Case Studies from Australia

Following are a number of brief case study outlines of proactive partnerships in Australia between park management agencies and other groups with an interest in sustainable nature-based tourism.

1 **Queensland National Parks & Wildlife Services (NPWS)- Queensland Wildlife Parks Association (private parks) and the Queensland Department of Education** - the establishment of a network to facilitate and jointly promote nature-based education and recreation for early childhood, primary, secondary and tertiary students, senior citizens, and groups of disabled people. The development of shared literature improves planning and access; shared programs and activities utilises common resources and expertise. The goal of this group is to "lead participants to a change in personal behaviour for the protection and enhancement of the natural environment".

2 **Brisbane City Council, Queensland State Forests, and Queensland National Parks & Wildlife Services (NPWS)** - with respective responsibilities in Brisbane city for water catchment management, forestry, and conservation. The agencies have come together in the formation of the Brisbane Forest Park which has established a partnership that shares natural resource management, expertise,

visitor services and infrastructure, and encourages private enterprise in a number of ventures including the catering concession and conference/function facility management. This partnership has maximised community access to a large area of open bushland on the periurban fringe of the city. It enables people to participate in all the recreational activities they desire such as camping, swimming, walking, bike riding etc but within zones that allow for different users and uses in different areas, and at the same preserves the priority purpose of the natural resources. In this way rather than national parks being seen to refuse certain activities, and the catchment authority denying access, all agencies are in a position to give permission to do most things, but in restricted locations. The public face of the partnership demonstrates useful resource sharing which is favoured by the tax paying public, the conservation and protection values are all respected, the recreational needs of the community are catered for and the enterprise is doing well.

3 The National Ecotourism Accreditation Program (NEAP)

A partnership involving the federal Department of Tourism, state agencies, the Australian Ecotourism Association and private enterprise has resulted in the development of a comprehensive industry driven accreditation process. Whilst it has a number of challenges ahead in relation to standards, monitoring and continuous improvement in the perception of best practice and consumer expectations, it is establishing and evaluating the criteria important to the establishment of an ethical and sustainable nature-based tourism industry. In relation to protected areas, a number of parks have accreditation such as the Brisbane Forest Park, mentioned in the previous case study, which has advanced accreditation. This acts as a marketing tool for them. In Western Australian the Department of Conservation and Land Management, which has jurisdiction over national parks and state forests, use NEAP accreditation as a component of their licensing arrangements for private operators. In this way industry based procedures are then used to ensure base standards are met in relation to private operators wanting to utilise protected areas for their business operation.

4 **New South Wales National Parks & Wildlife Services (NSW NPWS)** are in the process of developing of a nature-based visitation and recreation strategy. This is an example of visitor/tourism planning and management at a state-wide level. It is based on the NPWS Plan of Management process with a planning framework for ecologically sustainable visitor use management. It also integrates the principals of the International Convention on Biological Diversity for NSW; the Ecologically Sustainable Development Working Group (Tourism) Report of Australia; the national Ecotourism Strategy for Australia and the Tourism New South Wales Masterplan. Not all parks and all locations are suited to nature-based tourism, either because of their sensitive ecosystems or due to distance from viable markets. This approach to planing allows for the central agency to make decisions, in conjunction with various stakeholders, including the Parks Association, various conservation agencies, the wider community, the tourism industry and the NSW Tourism commission on the most effective allocation of resources to visitor infrastructure and appropriate staffing and staff development (Worboys, 1997).

5 **Tasmanian Wilderness World Heritage Area (WHA)** covers approximately 20% of the entire state of Tasmania. It includes Tasmania's four largest national parks, a range of reserves and some of the best wilderness areas of SE Australia. Under the Tasmanian National Park and Wildlife Act a plan of management was developed to promote a policy framework and management prescriptions to guide management of the WHA. The Plan incorporates a high level of community involvement in the WHA management. It closely integrates recreation and tourism interests as the WHA has outstanding features such as extensively glaciated landscapes, undisturbed habitats of rare and endangered plant and animal species, endemic species representing a rich variety of evolutionary processes and magnificent natural scenery together with an impressive range of Aboriginal sites and cave art. Accordingly the WHA is highly valued for its natural, cultural and scenic qualities, and as such, is recognised as a major asset of the Tasmanian tourism industry and a key focus of the marketing of that industry. In order to balance the needs of conservation and protection with meeting industry aspirations, visitor expectation and demand, the needs of tourism are built into the plan using strong principles of sustainable use, including: locating all major accommodation

and visitor facilities outside the WHA or near its periphery; the use of existing road access to key attractions and the development of recreational opportunities from this access; the use of a zoning system consistent with the protection, conservation and rehabilitation of the area's values; site and recreation zone planning and a clear requirement that developments meet strict environmental conditions. The planning is undertaken in consultation with Tourism Tasmania and the Tourism Council of Australia (Tasmanian Branch) to ensure an integrated strategic approach to tourism across government agencies and the industry (Tas Parks & Wildlife Service, 1997)

6 **New South Wales National Parks & Wildlife Services, the Commonwealth Scientific Industrial and Research Organisation and the University of Western Sydney** have established an ongoing research partnership to develop management approaches which facilitate sustainable nature-based visitation and use of protected areas. The partnership has many elements including the sharing of expertise; infrastructure;. the collaborative application for competitive research funds; the provision of access to students studying environmental management and tourism to the resources and experience of the national parks staff; work experience opportunities for undergraduates who complete data collection; and research students who provide research assistance to Parks and CSIRO staff, they in return provide research supervision; plus the development of an advisory group which represents the local community, local government, tourism industry, conservation agencies and various other government instrumentalities. The research themes for the overall program are:

- Methodologies for monitoring biological impacts of visitation.
- Analysis of visitor expectations
- Mapping of appropriate visitor use of protected areas.
- Wilderness and the ethics of its accessibility for different users
- Establishing effective interpretation and education processes
- Providing a multi-cultural perspective on protected area usage
- Exploration of the synthesis of conservation values and tourism business demands

- Investigation of how tourism can improve the quality of life of both residents and visitors
- Demonstration of the benefits of tourism to local community.
- Developing principles for management of visitor behaviour

Within each of these themes a number of individual and overlapping projects are underway.

7 The New South Wales National Parks & Wildlife Services is developing economic modelling tools to establish the social and economic contributions of national parks to sustainable rural and regional development. The major changes to the economic activity of these areas are brought about by the internationalisation of markets and communications, the changing nature of rural business and employment, and social and demographic changes. Government agencies working in these regions are increasingly seeing their responsibility as ensuring benefits flow from opportunities presented by these changes, directly back to the local communities. NSW NPWS has completed a number of studies looking at the socio-economic issues surrounding nature conservation, designed to foster better relationships with local government, community groups, other agencies and individuals to ensure the well-being of these rural and regional areas. In assessing the economic benefits of protected areas on regional economies input-output analysis has been used to measure the contribution of an area to gross regional output (business turnover) gross regional product (value-added activity) household income and employment. Economic contribution from national parks to these occurs in several ways. Firstly, through park management which is the principal role of national parks in protection and conservation of natural and cultural heritage; the purchasing of local goods and services which stimulate local businesses and trade; direct employment in parks of local people; and consumer spending by park staff and their families. Secondly capital works utilise local contractors, goods and services in the maintenance and establishment of new park offices and visitor centres. And finally through visitor expenditure, using the national park as a draw card to attract visitors to a region. The flow on effect of these visitors is through the

purchasing of accommodation, food and beverages, transport, motor vehicle services, shopping and other related activities.

NPWS is also investigating the wide range of use and non-use benefits to individuals and the broader community. To date NSW NPWS has completed studies in Dorrigo National Park; Gibraltar Range national Park; Minnamurra Rainforest Centre, Budderoo National Park; Montague Island Nature Reserve and Coolah Tops National Park. In all these studies the role of nature-based tourism is an important element in the economic benefit that the park brings to the region. In the case of Minnamurra Rainforest Centre, for example, the park is 5,700 hectares in size. It is dominated by subtropical and warm temperate rainforest vegetation providing habitat for 70 bird, 20 mammal and 11 reptile native species. It has a visitor centre, 1.6 km of raised boardwalk, with disabled access, a 2.6 km return access route to the Minnamurra Falls, an outdoor class room in the rainforest, a café and picnic/b-b-q facilities and parking. Park visitation has increased from 72,000 in 1992 to 140,000 in 1995. Local expenditure by visitors to the rainforest centre are estimated to annually contribute over $A4.1M in gross regional output and $A2.0M in gross regional product, including $A1.4M in household income payments to the equivalent of 119 local people (Conners,1999). These studies enable the Parks Service to identify strategies for improved contribution to their local regional communities. Nature-based tourism is an important element in this contribution.

8 The Australian Trust for Conservation Volunteers (ATCV) is a national, non-profit, non-political, community based organisation that aims to preserve the environment by involving the community in practical conservation projects. They have volunteer programs including some specifically designed to enable tertiary students to work in state and national parks; educational programs and international conservation programs. Each year they complete in excess of 1,200 conservation projects throughout Australia. They are a member organisation of the IUCN, and are recognised as a peak conservation group in Australia. They offer packaged holidays at $A20 per day which includes food, accommodation and project travel (not including initial travel to the destination) for 2, 4 and 6 week periods. The

volunteers work on conservation projects in Parks and other protected areas as well as on conservation projects outside the national reserve system. The land and natural resource management agencies partner with the ATCV, providing the project, costs for the operation including equipment, materials, expertise and on-site supervision. The ATCV provides the labour component, greatly reducing the cost of the projects, such as track construction or maintenance; weed eradication, or bush regeneration, in some cases covering quite extensive areas. For the volunteers they are having an ecotourism holiday at a budget price, meeting similarly conservation minded people, learning new skills and enjoying the satisfaction of the achievement, and being in some spectacularly beautiful places (Ecotourism Association of Australia, 1999).

9 The Department of Conservation and Land Management (CALM), Western Australia has responded to a problem associated with the lack of locally trained and technically expert tour guides who take visitors on nature-based adventure and ecotours but do not always have a good knowledge of local flora and fauna. Due to the very seasonal nature of visitation in some regions, such as the Kimberley or 'Great Outback Region' which is not an easy environment for outdoor recreation and travel in the wet season, they also have a highly seasonal work force. This creates problems for tour companies in finding staff with the appropriate mix of skills. To assist in over coming this issue, and ensuring visitors have access to correct and timely information about the many varied species of flora and fauna, the Kimberley Regional Office of CALM have in conjunction with the Kimberley Tourism Association and the Western Australia Tourism Commission produced an Interpretation Manual which provides accurate and easily located information which can be used as a staff training manual, can be carried in tour vehicles and comes with a series of small colour plated booklets. These enable rapid species identification, linked to more detailed information about the ecology of the region, the cultural and economic impacts of various land use practices, and provides information of the work of CALM and the principles of sound environmental management.

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TOURISM AS A CONTRIBUTION TO A SUSTAINABLE DEVELOPMENT OF THE DZANGA-SANGHA REGION IN THE CENTRAL AFRICAN REPUBLIC

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1. Introduction

Only a few areas of undisturbed lowland tropical forest remain in Central Africa. The tropical moist forests of southwestern Central African Republic (CAR) are the country's last strongholds of these diverse habitats. These lowland tropical forests are also home to people representing a range of ethnic groups, including many different groups of indigenous hunter-gatherer like the BaAka pygmees. Of economic importance for food and other forest products for the people who live in and near them, the forests are also an integral part of the spiritual and cultural life of the BaAka and the Sangha-Sangha ethnic group.

To protect these forests in a way that respects and maintains local culture and allows for socioeconomic development of the local community, in 1986 WWF helped establish the Dzanga-Sangha Dense Forest Reserve (3,159 square kilometers) and the Dzanga-Ndoki National Park (1,220 square kilometers) in southwestern CAR. The park and reserve together constitute the Dzanga-Sangha protected area system, which links with protected areas in Cameroon (Lobeke) and northern Congo (Nouabale-Ndoki) to form a trinational protected area complex covering a very high percentage of the biodiversity of the Congo Basin.

2. Biodiversity

The Dzanga-Sangha Special Reserve and Dzanga-Ndoki National Park host spectacular intact populations of key forest fauna. This fauna include one of the largest intact

populations of forest elephants (*Loxodonta africana cyclotis*), as well as western lowland gorillas (*Gorilla gorilla gorilla*), chimpanzees (*Pan troglodytes*), giant forest hogs (*Hylochoerus meinertzhageni*), bush pigs (*Potamochoerus porcus*), Bongos (*Tragelaphus euryceros*), African forest buffaloes (*Syncerus caffer nanus*), and six species of duiker (*Cephalophus spp*.) are also common in this forest. A forest robin (Sangha Forest Robin (*Stiphrornis sanghensis*), Turdidae) believed to be endemic to this area has recently been discovered by the American Museum of Natural History.

Of the 20 primate species found in CAR, 16 species inhabiting the lowland forest range from dwarf galagos (*Galago demidovii*) to huge gorillas. There are six species of *Cercopithecus* and two species of *Cercocebus,* the agile crested mangabey (*Cercocebus galeritus*) and the grey cheeked mangabey (*Cercocebus albigena*). The striking black and white colobus (*Colobus guereza*) and the red colobus (*Colobus badius tephroseceles*) also occur here. Western lowland gorillas are most frequently found in secondary forest and light-gap areas, but they also regularly use primary forest and marshy areas.

In CAR elephants remain in significant numbers only in the Dzanga-Sangha forest area. In many other areas, elephants have been virtually eliminated by ivory poachers. Because elephants have a profound effect on the forest ecology, they are key stone species. Their ”bulldozing” may inhibit regrowth in secondary patches in lowland forests. By feeding on bark and wood, as well as ”mining” for minerals around tree roots, the elephants create treefall gaps. These sundrenched ”light gaps” become a tangle of herbaceous vegetation that provides food for gorillas and shelter for duikers. As they dig for minerals with tusks and trunk, elephants create and maintain herb-filled forest glades that provide forage and meet the mineral requirements of species such as bongo, buffalo, and sitatunga.

3. Project structure

The Dzanga-Sangha Project is a collaborative effort between the government of the Central African Republic (Ministry of the Environment, Water, Forest, Hunting and Fishing), the World Wide Fund for Nature/ World Wildlife Fund (managed through WWF-US), and LUSO Consult, on behalf of the German Agency for Technical Cooperation (GTZ) to

develop, protect, and manage the Dzanga-Sangha Dense Forest Special Reserve and the Dzanga-Ndoki National Park on a sustainable basis. The project's primary focus is the conservation of the rich natural and cultural resources of the tropical rainforest environment in the extreme southwestern Central African Republic (CAR).

The Dzanga-Sangha area is managed in an integrated manner with zones delineated for logging, safari hunting, community hunting and gathering, agriculture and preservation of the natural ecosystem with controlled tourism and research. One of the most notable achievements of WWF's partnership with the CAR Ministry of Water and Forests was the creation of legislation that allows for multiple uses of the Dzanga-Sangha Special Reserve and, through revenue-sharing, provides a context in which local communities can realize economic benefits from the protected areas. Ninety percent of the tourist entry fee income is disbursed locally, and the multiple-use designation also creates the conditions to provide options for hunter-gatherers to maintain traditional lifestyles.

4. Role of tourism

Project managers seek to develop tourism in the Reserve as one of the means for accomplishing its conservation objective. Development of tourism in Dzanga-Sangha can support conservation by:

1. Generating revenue from tourist-related activities and fees, portions of which can be used to finance conservation efforts;
2. Creating opportunities to educate visitors about conservation issues in a "hands-on" environment, resulting in the creation of a base of popular support for conservation;
3. Establishing a viable, more sustainable economic option for the local community which would decrease pressures for more extractive use of forest resources.

If tourism is to achieve these objectives then programs, services, and facilities which attend efficiently and effectively to the needs of tourists must be in place. This report refers to these programs, services and facilities as "visitor services". Some visitor services are

designed to help visitors develop a deeper appreciation for the resources they are coming to experience. This report refers to these essentially educational services as "interpretation".

"Interpretation is an educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information."

--Freeman Tilden

High quality "interpretation and visitor services" (I&VS) are important because they can enhance or "add value" to the Dzanga-Sangha tourism product and can serve as the basis for distinguishing the Reserve from other areas which contain similar resources. In short, high quality I&VS will help create a satisfied clientele which is the basis for any successful venture.

An assessment of the current state of interpretive and visitor services in the Dzanga-Sangha Reserve was carried out in 1995 by a team of specialists of the USDA (United States Department of Agriculture) Forestry Service. In the summary of their report they stated that ”the Dzanga-Sangha Reserve contains "world class" resources that can serve as a solid attraction base for successful tourism development. At the same time, there are infrastructural problems (poor transportation network, limited accommodations, bureaucratic hassles associated with overland travel between Bangui and the Reserve, etc.) which will tend to inhibit tourism development. Whether tourism in Dzanga-Sangha will ultimately be successful will depend not only on the removal of these barriers but on the will and ability of Project managers to assertively implement and manage I&VS programs which focus strongly on providing visitors with positive, memorable encounters with the resources of the Reserve and with the people who live in surrounding communities”. This assessment also led to specific, imple mentable recommendations for further development of a high quality I&VS program which supports and complements tourism development in the Reserve.

Tourism in Dzanga-Sangha is an essential part of the overall strategy of the Dzanga-Sangha project by:

- generating revenue for park and reserve management;
- providing economical benefits for the local population;
- providing opportunities for ”hands-on” environmental education.

A recent paper entitled ”The impact of tourism on protected area management and the local economy in Dzanga-Sangha (Central African Republic)” analyzed the premise that revenues from tourism can provide economic sustainability for the management of both the Dzanga-Sangha Special Dense Forest Reserve and the Dzanga-Ndoki National Park. In this paper the following two conclusions were presented:

Firstly, the data clearly show that the present form of tourism alone will not be able to provide enough revenue to pay for the operational costs of the Park and Reserve. Additional income, from for example gorilla tourism and an endowment trust fund are essential.

Secondly the paper analyses the impact of tourism on the local economy. One of the strategies of the Dzanga-Sangha project is to provide alternative economical options to more environmental destructive activities such as poaching, diamond mining and logging. Even at the present relatively low number of visitors per year the economical impact of tourism, one such alternative, on the local economy is substantial. Increased revenue from tourism has improved relations with the local population and has led to an increase of information about illegal activities provided by local people.

The Dzanga-Sangha program will further increase revenue for both the local population as well as the Project and will by these means increase the economic impact of conservation in this impoverished region, by generating direct revenue (40 % of park fees go to local NGO), employment and assorted indirect benefits. Furthermore by both economical incentives as well as environmental education will raise awareness at the local level of the need to conserve the extraordinary biodiversity of the Dzanga-Sangha region.

5. Tourism options and development

In the following section some of the essential tourist activities are outlined:

Focal area

At least in the early stages, tourism development be focused on one area. Tourism opportunities which are distributed over a broad geographical area will present transportation and other logistical problems and might also result in negetive environmental impacts. The Project is having difficulty supporting tourism activities close to Bayanga (e.g. maintaining roads, transporting tourists to attractions, etc.). Developing tourism opportunities in more remote locations, such as Ndoki, would in troduce additional logistical problems. Furthermore, we believe that the resources around the Bayanga area are representative of the principal resources of the Reserve and can provide visitors with a well-rounded experience of Dzanga-Sangha.

Some of the basic infrastructure essentials in the transport of the visitors need to be developed and maintained. This infrastructure can be grouped in two categories:

- airport: Bayanga has a 1400 meter long airstrip;
- entry road: Bayanga is located at 60 km from the national road.

Target market

The visitors who make up the bulk of current visitation to the Reserve (French military stationed in country and their guests, resident expatriates and their guests, overland tour groups) are not the target market and not the market upon which a sustainable tourism industry will be built. Instead, Dzanga-Sangha tourism must be able to cater to an international clientele. The needs of the target market are different from those of current visitors.

Accommodation

The Project has invested already substantially in tourist facilities by constructing a lodge, called ”Doli Lodge”.

Visitor center

Visitor centers are the places where people are first introduced to the resources they have come to enjoy. As such, they must be easily accessed and located on a site which captures the essence of the primary resources, in this case, a tropical rainforest.

A visitor center, recently built, welcomes visitors and introduces visitors to the tropical rainforest of central Africa by a short self-guided interpretation trail. Such an interpretation trail is an important feature since it would provide visitors with a rare opportunity to experience the rainforest on their own.

Tourist guide staff

Uniforms can clearly identify staff from those not directly affiliated with the Project. They create a sense of identity, establish an air of professionalism and authority, and convey to visitors and residents alike that the Project is serious about developing tourism and providing a high quality experience for visitors. Also, based on our discussions with the guides, uniforms would provide them with a feeling of prestige and positive self-image and that can, if properly managed, result in improved services to visitors.

Wildlife viewing

Forest elephant viewing from the Bai Dzanga mirador is currently the most distinctive (and marketable) tourism opportunity available in Dzanga-Sangha. The open salines, and the wildlife viewing opportunities they offer, are the "crown jewels" of Dzanga-Sangha and a guided visit there should be a part of every visitor's experience.

A specific program to habituate primates and especially gorilla’s to visitors was started in 1997. This program is well under way.

The opportunity to visit one of the multitude of open bais, or salines, which are frequented by forest wildlife is the single most compelling tourist activity at Dzanga-Sangha. Bai Ngoumbounga is located about an hour's drive from the Dzxanga-Sangha headquarters in Bayanga. The drive to the bai passes through some of the most diverse and undisturbed forest in the area. There is also a high level of use of the bai by various wildlife including

elephant, bongo, forest buffalo, and even gorillas. A substantial stream emerges from the dense forest, crosses the bai, and returns to the forest.

Foot trekking

One of the best ways to experience the rainforest ecosystem is on foot. Currently, opportunities to experience the dense forest on foot are limited to fairly rigorous outings with a guide. The development of more formal trails allowing visitors an opportunity to experience the forest on foot in a less rigorous situation are planned. Since the primary objective of a trail is wildlife viewing, the trails should only be developed on one side of a bai, leaving the rest of the area open to unencumbered wildlife access.

Nocturnal visits

The sensory experience of a nocturnal visit to a bai is dramatically different from the daytime experience. Though animals are more difficult to see at night, the smells and sounds of a nighttime visit offer visitors an important opportunity to experience wildlife from a different perspective. The project allows visitors to spend a dusk, night and dawn at a bai observing the changes in wildlife activity.

Canopy walkway

Observation plattforms and walkways suspended in the forest canopy have been developed in several other countries with significant forest canopy resources (Peru, Indonesia, Malaysia, Costa Rica, US, Ghana). These allow visitors to access resources which would otherwise be difficult to view and appreciate. The project is planning such an attraction in the near future.

Visitor safety

The tropical rainforest of Dzanga-Sangha can be a hazardous environment for both visitors and staff alike. The natural hazards include such things as unpredictable wildlife behavior, aggressive insects, falling trees, and difficulty in obtaining potable water. In addition, there are other hazardous conditions associated with working in a forest environment. These include the nearly constant need for machete and chain saw use, and mechanical problems associated with vehicles which must operate on poor roads.

During a visit to Bai Dzanga, the guide briefs visitors on safety issues before the start of the hike.

Guides are provided with radios and are required them to be carried at all times while in the field. This will facilitate appropriate response in the event of injury, vehicle malfunction, or other unplanned event.

Guides will be trained to be informed about the physical condition of visitors under their charge watching for signs of fatigue, dehydration, heat exhaustion, heat stroke, etc. They will have basic first-aid kits, with more extensive packages in base-camps and cars.

When it comes to safety issues, we understand that the remoteness of the Reserve and lack of infrastructure in the country makes it difficult to assure a visitor's safety at the same level as might be assumed in parks and reserves in Western Europe or the United States. However reasonable steps should be taken to provide, to the greatest reasonable extent, for the safety and welfare of clients, i.e. the tourist. Tourists are sensitive to issues of safety and security and their perceptions, real or imagined, can have an immediate effect on tourism to a given destination. Word of one serious accident at Dzanga-Sangha, which might have been prevented with reasonable safety precautions, could deal a devastating blow to a young and emerging tourism industry.

ECOTOURISM[21] IN RUSSIAN NATURE RESERVES: POSSIBILITIES, PROBLEMS, PERSPECTIVES

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1. Ecotourism potential in Russia

Ecotourism, with an objective of promoting the conservation and sustainable management of unique nature resources, has great potential in Russia. The really competitive tourist attractions of the country on the world market are its high landscape and species diversity, the unique network of nature protected areas, a number of rare and endemic species, and the presence of vast areas of almost untouched nature, unlike in most European countries.

During the post-perestroika years, several ecotourism feasibility studies have been conducted in a number of regions of Russia, as the Kamchatka Peninsula, Far East, Baikal Lake area, etc. These studies indicate that there are good perspectives to develop ecotourism. In the Far East and some other regions ecotourism would appear to be the most logical form of tourism to develop. The same opinion is expressed in the survey carried out by the Inter-Regional Association of Independent Tour Operators of the Far East (IAITO US): the growing interest indicates that the greatest opportunity for development of tourism in Siberia and the Far East lies in nature based programs.

These analyses state that ecotourism should, all else being equal, be an attractive and economically viable development option in the regions. The investments in this sphere

[21] We follow the broad concept of ecotourism as "responsible travel to natural areas that conserves the environment and improves the welfare of local people" (the Ecotourism Society), or "sustainable nature-based tourism and recreation"(Kreg Lindberg. 1998). Thus, we included in the sphere of our work a wide circle of activities under condition if they are connected with visiting nature sites and performed in ecologically and socially sustainable way: adventure tourism (white water rafting, canoeing, mountain climbing, horseback riding), special interests tourism

would be financially feasible. Ecotourism has especial potential to provide employment for local people, especially in remote non-industrialized rural areas.

In the conditions of great economic and political changes in the country, faced with a high unemployment rate, the local population was forced to return to traditional economic activities, such as cattle grazing, hay making, hunting (poaching) and gathering. Performed in an unsustainable way, it inevitably increases the conflicts between local communities and nature protected areas and leads to the destruction of important nature complexes. Ecotourism can provide for the local population the economic incentives for conservation, change their attitude towards protected areas and ensure their collaboration.

Ecotourism may be practical in cases when funds for large-scale development are not available, as it frequently uses simpler facilities and has less expensive and less intrusive infrastructure.

However, all these benefits of ecotourism can only become possible via serious preparatory work, including improvement of existing legislation, training of personnel at different levels, infrastructure development, marketing, etc.

2. Brief history of ecotourism development in Russia

Development of ecotourism in Russia has passed a complicated way and is still in its infancy. The first nature tours (not numerous, mostly for foreign visitors) were organized in the first post-Perestroika years, when a rapid growth of foreign visitation took place. However, this could hardly be called "ecotourism". The tours were too rare to play an essential role. Most of the profit belonged to the foreign operators or travel companies located in the capital cities. Usually nature protected areas either received a miserable income, or demanded super-high prices without the appropriate level of service, and, eventually, lost the clients. Nobody took serious care about education and the involvement of the local population in ecotourism activities.

(birdwatching, botanical, ethnographical and archaeological tours, visiting caves), tourism associated with

Soon the political and economic instability in the country caused a drastic reduction of the influx of foreign visitors. At the same time, the in-country tourist activity of Russian residents remained extremely low. Many of the Russian companies previously dealing with nature tourism were forced to change their specialization drastically.

In the last few years, new perspectives for ecotourism development in Russia emerged. According to the forecasts of Russian tourism industry experts, a great increase of in-country travels of Russian residents is expected in the nearest future, with a special emphasis on a nature-based travel. The influx of foreign ecotourists in the country remains very low at the moment. However, besides "typical" foreign ecotourists, new categories of potential nature travelers have appeared, including the foreign specialists working in Russia or coming there on a business trip.

As a whole, the ratio between more commercial and nature based kinds of tourism, is rapidly changing in favor of the latter.

3. Problems of ecotourism development in Russia

At present, there is a complex of problems hindering ecotourism development in Russia. They are typical for most of the regions and protected areas in the country.

At the federal and regional level:

- **Political instability and economic crisis** that influence the image of Russia at the international scale;

- **Imperfection of legislation**, especially the tax policy, visa system, land use regulations.

Under the present legal and economic conditions very few investors or developers are interested in any investment in tourism. Foreign capital for any investment can be attracted

conferences, special events, visiting friends and relatives, business trips, etc.

only after an improvement of land right regulations and the taxation system. Ecotourism development is not profitable for many nature protected areas, as a great part of their income leaves them as taxes and other payments.

- The **mechanisms** of ecotourism development at the federal level are not worked out. There is a lack of complex approach and coordination of this activity at the federal level.

- There is **no unified concept** which integrates the aims of tourism development, agriculture and forestry development, culture, mining, fishery, traffic, sports, spa and health, accommodation and gastronomy, and waste management.

These problems cause non-civilized development of the nature tourism market both from the local and foreign participants of this process, when the major motivation is to obtain maximum profits in the short term.

At the local level (particularly in protected areas):

- Lack of necessary **infrastructure** (living facilities, transport vehicles, a set of equipped ecological trails and routes, etc.).

- Absence in many nature reserves of **ecotourism products** that meet the standards of the international travel market (sets of routes and programs for different tourist categories, etc.)

- Lack of detailed **pre-trip and specialty information** (lists of fauna and flora, rare species, etc.) for the travelers, lack of nature interpretation programs targeted to different categories of visitors in Russian NPAs.

- The NPAs have qualified researchers and rangers, but the personnel has **little training** and **knowledge** of marketing, accounting and other fundamental skills which would enable protected areas to compete in the world arena and to achieve this level wherein outside capital would be attracted for infrastructure investment. The

organization of training of the Russian personnel would make it possible to greatly enhance the quality of ecotourism experience even under the existing infrastructure.

- Mechanisms are not in place to determine carrying capacities for nature protected areas and thoroughly **monitor tourism impacts**. This makes them vulnerable against possible ecological problems of tourism organized without proper planning and control.

- Nature protected areas are not in the position to gain financially from tourism because they do not provide adequate means for tourists to spend money (necessary **diversity of the services and products**).

- No unified civilized **standards of pricing** tourist services are rendered by the nature protected areas. A lot of nature protected areas demand incredibly high, or, to the contrary, under-estimated prices.

- Lack of **marketing information and skills** is one of the most serious factors hampering ecotourism development in Russia. The world community has little knowledge of Russia's protected areas and their significance.

- Absence of specialized and **qualified structures** able to organize and coordinate the ecotourism development processed on the regional scale.

- The largest portion of the economic benefits accrue to individuals and organizations **outside the host country** (international airfares, outbound tour operators, etc.).

- There is no assurance that a portion of the financial gains from ecotourism benefits **the local communities**. Most of the nature protected areas seriously underestimate the necessity to participate the local population in the ecotourism development.

Notwithstanding these problems, international experience and analysis of Russian specifics indicate that it is quite possible to make ecotourism development much more effective, i.e., minimize its negative impacts and maximize its potential benefits for nature

conservation and local development. The necessary condition is thorough and professional ecotourism planning, management and monitoring. One of the first steps in this direction was made by the ecotourism development project in the Far East funded by the World Wide Fund for Nature (WWF) and the US Agency for International Development (USAID) (coordinator: N. Moraleva, main executant: E. Ledovskikh).

4. The USAID-WWF ecotourism project in the Russian Far East

This project was one of the first to introduce innovative approaches for sustainable tourism development in Russia. At its first stage, the potential of a number of nature reserves for ecotourism development was assessed, including identification of the target categories of visitors for each of them. A package of detailed tourist routes and programs for different categories of visitors has been developed. An assessment of recreation capacities for the tourist routes was made, the optimal regimes of excursions were identified. The personnel of the reserves were given consultations and recommendations on different aspects regarding ecotourism development. In accordance with international standards, the tourist packages were formed to be offered on the international market. A vast program of lectures and excursions was prepared. Expert trips were organized, which allowed the reserves´ personnel to acquire a certain practical experience. As a result, recommendations "from the point of view of western visitors" were given to the nature reserves for the further development of ecotourism. The methodical recommendations for the zapovedniks had been prepared based on the foreign and Russian experience. The production of advertising and information material (leaflets, booklets) was published for a number of zapovedniks. A website containing detailed information packages about Far Eastern zapovedniks and possibilities to visit there was prepared (http://www.orc.ru/~dersu). It provides detailed information for the foreign ecotourists, specialists, students, birdwatchers, nature lovers, etc. A first stage of the campaign for the marketing of ecotourism in the RFE has been initiated. A very promising cooperation was established with a number of international ecotravel agencies.

In the course of the project, ecological education centers have been established in the Far Eastern Marine, Lazovsky and Ussurisky nature reserves. The reserves' nature museums

have been restored and modernized, tourist cottages have been repaired, the ecocenters' premises have been equipped with modern computers, videomicroscopes, TV sets. The ecocenters' leaders received extensive training in the specialized courses in Russia and USA. According to the initiative of local people, the crafts workshops have been equipped.

In the course of the project realization, the nature reserves' ecocenters started to play a remarkable role in the social life in their regions and actually turned into local cultural centers. Its specialists carry out great work with schoolchildren, local people, visitors from other regions of Russia and abroad, organize ecological camps and training workshops for the teachers. A children´s ecological theatre was created. As a result, the attitude towards nature reserves both from the local people and administrations had changed drastically. Regional administration and ecological foundations started to allocate funding for the support of nature reserves. The results of work of the Far Eastern Marine reserve's ecocenter on Popov Island are especially significant. The project gave birth to the children ecological movement "Children teach to protect nature". For example, the children put on the map all the dumps of Popov island and then involved their parents in their liquidation. The children explain to the tourists arriving on the island how to behave in order not to harm nature. Local administration incorporated the recommendations made by children in the plans of Popov Island's development.

The project results have proven to be sustainable in the long-term perspective. After the project finalization and termination of the funding, the ecocenters continue its active development. They won grants from the Soros Foundation and ROLL ("Replication of Lessons Learned") program of the USAID and Institute of Sustainable Communities. The visitor influx to the ecocenters has greatly increased, a fact that essentially heightened the income of nature reserves. In fact, this is the first example when the funding earned by the ecocenters can be compared in scale with the governmental budgetary funding of nature reserves.

To provide for the sustainability of the project results and further effective ecotourism development in Russia, the Ecotourism Development Fund "Dersu Uzala" was established in the framework of the USAID-WWF project. The Fund works out and implements complex ecotourism projects in different ecoregions of Russia, organizes ecotourism training

workshops for the personnel of nature reserves, provides them with the consulting and expert assistance, publishes methodological literature, advertising-informational books, booklets, video films, organizes marketing campaigns for the nature reserves, carries out presentations and conferences, together with nature reserves operates ecotours and scientific tours.

All this together allows us to hope that ecotourism can really become a viable social-economic alternative to the natural resources exploitation and depletion, as well as important economic direction which can in future play an essential role in the regional economic development.

The result of this project suggest that the most realistic strategy to introduce ideas of ecotourism in Russia is to start from the nature protected areas: zapovedniks (strict nature reserves), national parks, etc.

5. Nature reserves as optimal grounds for ecotourism development

It was historically established that Russia nature protected areas (zapovedniks) have stricter regimes of protection than the same territories of western countries have. It was not allowd to visit these areas without special permission. The number of permissions was limited and usually only people who made some scientific investigation could receive it. For these reasons from the beginning a lot of representatives of nature conservation field were against the idea to use protected areas for the development of ecological tourism. Gradually most leaders of reserves realize the necessity of developing a special "soft" type of tourism. We found the compromise: allowing the organization of ecological touristic activities not in the core areas of a reserve, but in the special protected zones not far from it. According to this idea the scientists of the reserve, who have a special knowledge about nature and history, can be guides of such an excursion. Now in all Nature Reserves of Russia the special departments - departments of ecological education - are organized. The main goal of these departments is the organization of ecological excursions, meetings with local populations, educational programmes and the preparation of specialists in such activities.

Later these ideas were supported by the project of the Global Enviromental Facility. The aim of this project is the development of ecological education in twelve pilot protected areas. After an estimation of the real situation in each of these reserves special programmes were worked out. Organization of ecological trails, building of visitors´ centers, museums and some other activities will be done in the reserves. In future it will help the correct and successful development of ecological tourism on the territories of these reserves. We also plan to extend similar projects to other nature protected areas.

Our experience of ecotourism development in Russia made us believe that under the present social and economic conditions, the zapovedniks and national parks can provide an optimal ground to start development and introduction of the principles of sustainable tourism in Russia. The major reason is a necessity of involvement structures able to control and manage the environmental and social impacts of nature tourism. When the increase of tourist visitation takes place in another nature areas, without proper management and control this can cause their quick degradation. There are a lot of examples like this in Khakasia and Mountain Altay, when tourists spoiled unique archaeological monuments. At present, in most cases local administrations and other governmental structures are unable to implement control over tourism due to many reasons; it will require a lot of work to change the situation. Nature protected areas seem to be the only structures at the moment which are really able to manage tourism.

A unique network of nature protected areas is one of the greatest ecotourism attractions in the country. The Russian system of zapovedniks, the standards of primordial landscapes untouched by the human activity, has no analogues in the world. Zapovedniks preserve the biological diversity, maintain the natural complexes in its intact conditions, carry out scientific research in the framework of a unified system. A network of zapovedniks and national parks presents a wide variety of remarkable landscapes and ecosystems in all natural zones of the country. In comparison with tours in many foreign national parks, the advantage of ecotours is Russian zapovedniks is being tete-a-tete with primordial nature with no signs of the presence of other visitors. Another important feature of zapovedniks is their having research departments, monitoring the wildlife all the year round and forming in whole a network of research institutions in different nature zones. This makes the Russian

zapovedniks especially interesting for the organization of scientific tours and summer field training courses for the foreign students. Zapovedniks posess of staff of researchers and managers, who potentially can be responsible for planning, management and monitoring of the ecotourism activities. Their participation can also greatly enhance the ability to meet visitors' wishes and expectations to the fullest.

In the new economic and political conditions, the zapovedniks realize that a success of their activity is impossible without public support and the involvement of local communities in conservation activities. Therefore they are actively dealing with the ecological education. If properly organized, ecotourism can be an important tool of environmental education. It can make it possible to attract wide public attention to the issues of environmental protection and build strong public support for the protected areas.

The zapovedniks have a serious potential to start to play an important role in the local economies, promote attraction of international attention and investment capital to the region, create additional employment for the local population. This, in its turn, will increase the importance and value of protected areas in the eyes of the local communities and help to change their attitude towards conservation problems. Ecological excursions and tourism activities can play a key role in these processes. This had been successfully demonstrated in the course of the USAID-WWF project in the Russian Far East.

For many zapovedniks, ecotourism development has become the urgent economic necessity. For dozens of years, they were closed not only to foreigners, but also for most Russian citizens, as, according to the official conservation ideology, the protection of nature cannot be compatible with any kind of its use. In the new political and economic conditions in Russia, the budgetary funding for nature reserves has been reduced dramatically. The very survival of the network of nature protected areas is threatened. A destruction of these unique ecosystems would cause negative consequences not only on the regional, but also on the global scale. To survive and provide for their further sustainable operation, the nature reserves have to look for new, alternative sources of additional funding. The policy of the government with respect to zapovedniks has also changed. At present, it welcomes any activities which do not contradict their major activity and which generates additional income for conservation activities.

In this respect, ecotourism development can be extremely important, as it is one of the very few (if not only) kinds of economic activities of zapovedniks which corresponds to their primary conservation, scientific and educational goals.

Moreover, in some cases the success of biodiversity conservation is directly dependent on the development of ecologically sustainable tourism. There are two good examples which belong to globally important ecoregions: Caucasus (Teberdinsky zapovednik) and Mountain Altay (the Katunsky zapovednik). Both these regions have a very high potential for ecotourism development due to the great aesthetic attractiveness of its landscapes, high species and landscape diversity, presence of a lot or rare and endemic species, well-developed transport network and tourism infrastructure remaining from the Soviet time.

Teberdinsky zapovednik, North Caucasus

During several dozen years, the Teberdinsky zapovednik and adjacent areas were the biggest tourism center of Russia. There are a lot of tourist campings, hotels and sanatoriums; a number of internationally popular tourist and excursion routes pass by this territory. The presence of a famous nature reserve was an important factor that attracted several hundred visitors per year. Tourism was a basis of economic life for the whole North Caucasian region. Since the beginning of Perestroika and the prolonged socio-economic crisis, the influx of Russian and foreign tourists in the region has decreased dramatically. As paradoxical as it is, this caused an increase in anthropogenic pressure to the natural complexes. The local population who earned all their income from the tourism sphere and was devoid of other financial sources, was forced to turn to traditional means of survival: cattle-breeding, hay-making and illegal wood cutting. The narrow territory around the resort complex became not enough to satisfy the growing needs. Cases of violation of the zapovednik's regime increased catastrophically. A conflict situation arose between the nature reserve's administration and the local population. The organization of twenty-four-hour duties, patrolling of zapovednik's territory, establishment of control posts on the roads, involvement of the personnel of the Ministry of Internal Affairs and border guards was not able to prevent the damage caused to the natural complex. The environmental propaganda via lectures and presentations in the mass media proved not to be effective enough. It

became absolutely evident that, in order to save the nature of the North Caucasus, it was necessary to take measures for renewing the tourism industry in this region.

The Governments of the Republic of Karachaevo-Cherkesia actively supports these ideas and connects the perspectives of the Republic's economic development first of all with tourism. At present, tourism development is positively viewed by all the groups of local population. Tourism is especially important in terms of providing employment for the women of the Teberda and Dombai villages, whose main economic activity is producing hand-made wool goods and handicraft ware for sale. At the same time, their production is mostly of poor quality and unattractive design. There is an apparent lack of site-specific models of crafts. As a result, the production is sold very slowly, its markets are limited only by the villages Teberda and Dombai. Working out of new models of souvenir production, advertising and marketing will lead to essential increase of demand for local production and increase the incomes of local population from the business associated with tourism. The development of ecotourism can provide the local population with economic incentives for conservation, demonstrating that it is more profitable for them to protect their natural areas in their intact state.

At present, the project of Global Enviromental Facility (GEF) is being implemented in this region. The project is devoted to the establishment on the basis of zapovednik's museum of the center for environmental education and information for the whole North Caucasian region. The creation of the modern ecological education center and museum will make visiting the zapovednik more attractive. Disseminating the experience of the Far Eastern zapovedniks to this region can provide an important contribution towards sustainable development of this region. The major result of renewing the tourism industry on an ecologically sustainable basis will be: saving of the unique natural complexes of the Teberdinsky zapovednik, a decrease in the acuteness of socio-economic problems of the local population, the introduction in the Northern Caucasus of the concept of sustainable tourism as one of the most important environmentally friendly form of nature use in this region.

Katunsky zapovednik, Mountain Altay

Katunsky zapovednik is one of the most beautiful among the Russian nature reserves. Popular white-water, hiking and mountain tourist routes pass in its buffer zone. Unlike the Teberdinsky zapovednik, the influx of tourists in the Katunsky reserve and adjacent areas is very high. At the same time, the tourism infrastructure in the republic is poorly developed, there is a lack of appropriate hotel service, services of guides, excursion programs. There is no information for visitors about the zapovednik's existence in the Republic, suggestions how to visit it and how to behave there. Participation of the zapovednik in the control and regulation of the visitor influx is now minimal; a greater part of non-organized tourists come to the zapovednik's territory illegally. This causes the spontaneous development of non-organized ("wild", in Russian terminology) tourism, which provides benefits neither to nature reserve nor for local communities, and does not promote conservation of biodiversity and ecosystems of Altay.

In coordination with the Department of Nature Reserves of the Committee on Environmental Protection of Russia, the Katunsky zapovednik worked out the program of tourism development in its buffer zone. Besides, development of tourism was emphasized as one of the important direction of zapovednik's activity as a result of working out the zapovednik's management plan (project of the Know How Fund and Biodiversity Conservation Center). Part of this program is being funded by other donors - WWF (purchase of transport vehicles), GEF (strengthen of guarding service). Thus, development of tourist and educational activities of zapovednik can potentially become a sustainable source of its income.

In order that the program of ecotourism development could be realized, the zapovednik should first of all widely inform non-organized tourists coming to the region about the fact of its existence. At present, in the villages and along the tourist routes there are no stands or tables informing the visitors about the zapovednik and necessary guidelines. Many violations of zapovednik's regime are caused not by deliberate intention, but just by ignorance. Besides, the zapovednik has enormous scientific and educational potential. It should provide for tourists the minimum set of services at least. There is an urgent

necessity in design and equipment of ecological trails and places of halt, routes, and involvement local population in the ecotourism sphere.

Project ROLL (Replication of Lessons Learned) is currently implemented in 10 protected areas of the Altay-Sayan ecoregion by the Ecotourism Development Fund "Dersu Uzala" with the funding of USAID and the Institute of Sustainable Communities. The project is aimed at disseminating to this important ecoregion the experience of Far Eastern zapovedniks in ecotourism development, including assessment of recreation capacities, preparation of ecotourism product, training of the personnel, publication of advertising-information materials, marketing program, local population involvement. Disseminating the experience of Far Eastern zapovedniks, which is one of the first in Russia in this direction, can be an important contribution towards sustainable development of the Mountain Altay.

* * *

At present, many Russian zapovedniks consider ecotourism and ecological excursions to be the major source of their income. At the same time, they have no idea at all of what ecotourism is and how it should be organized in nature protected areas. In many cases, spontaneous and uncoordinated development of nature tourism takes place in zapovedniks. There is a serious danger: Without proper planning and management, when the major actors have no knowledge and experience in this highly specific sphere, tourism can fail to provide essential economic benefits for the protected areas and local communities. Instead of this, it can cause irretrievable damage to the unique ecosystems and discredit the very idea of ecotourism development in the nature reserves.

The problem is that at present there is no concept of ecotourism in Russia. Neither governmental bodies nor protected areas managers or travel agencies are familiar with the international definitions of ecotourism and follow the international principles of sustainable tourism. Efforts of different bodies remain separate and uncoordinated. Until recently, there were no specialized and qualified structures responsible for effective ecotourism development and coordination of these activities. Therefore the task of paramount importance is to introduce in Russia a concept of ecological tourism and to provide conditions for its civilized and effective development just in the very beginning.

6. Ecotourism Projects in Russia: Lessons Learned

1. Minimization of negative consequences of nature tourism and maximal increase of its benefits can only be possible via thorough and professional *planning, management and monitoring.*

2. As ecotourism potential and situation in different nature protected areas can be quite different, *an individual approach* to each of them is required.

3. Great attention should be paid towards the *involvement of local population* in participation in ecotourism development. Local people should not only receive economic and/or other benefits from these activities, but also connect their benefits with the necessity to protect their natural environment.

4. In comparison with the national parks and other areas designed specially for recreation, *a special approach is required for ecotourism development in zapovedniks.*

   Keeping in mind that they are strict nature reserves, not for every zapovednik could ecotourism development be a right solution. There is always a certain compromise with the goals of absolute intactness of the landscapes. The decision whether to start ecotourism activity should be based on thorough expert analysis. For those zapovedniks where this kind of activity seems to be possible and an effective option, we offer the special approach. First, the tourists influx in zapovedniks should be *limited and regulated*. This involves thorough selection of the optimal categories of visitors (for many zapovedniks, "scientific tourists" are the most desired visitors). Instead of mass tourism, organization of *longer and more specialized (and more expensive) programs* for a few groups seem to be more appropriate for zapovedniks. Therefore, if one were to consider programs longer than one day, the most likely zapovedniks' clientele are foreign visitors. For the local people, many zapovedniks offer 1-day excursions to its museum and ecological trail. Second, only part of the zapovedniks' territories (most often, their *buffer zones*) should be used for ecotourism. A greater part of the routes offered for the ecotourists can lie

outside the zapovedniks and include major local sights. Third, ecotourism development of this type does not require the construction of big new lodges on the zapovedniks' territory (though, certain improvement in the huts and cordons already existing could be very useful). Most of the ecotourists are quite ready to use simpler wooden huts and cordons during the field part of the tour. Instead of staying on the zapovedniks territory, accommodation can be organized in the nearest villages (for example, in private houses with local families, which is often more desirable for ecotourists). These measures might make it possible to minimize the negative impact of ecotourism on the preserved nature. So, the territories of the reserves actually remain free of tourists. In this case, the zapovedniks act as "umbrella organizations" which attract tourists. They can receive its income by performing partially functions of tour operators and organizers (they can have special staff members responsible for tourism organization), providing the *guides* and *experts, excursions, lectures and interpretative programs, transportation, souvenirs*, etc.

The best for development ecotourism potentially can be the biosphere zapovedniks (in the regions where they exist). They include, in addition to the core territories with the regime of absolute protection, the zones where the people and their traditional activities are the component of the landscape. Development of ecotourism can be quite appropriate in these zones.

5. Ecotourism development in different regions of Russia should be implemented on the basis of *a complex approach* and include infrastructure improvement, training of the personnel at different levels, publication of information-advertising materials, marketing, work with the local population, etc.

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Annex: The project ”The Green Network of Russia”

The Ecotourism Development Fund "Dersu Uzala" and the Russian NGO "Ecological Travels Center" have launched a joint project "Green Network of Russia". Its major goal is propaganda and practical introduction of the concept of ecologically sustainable tourism in Russia.

The characteristics of the project are as follows:

1. Expert analysis and planning

- Analysis of the ecotourism development potential of particular areas;
- Selection of the key territories for the realization of pilot projects;
- Identification of the most promising categories of visitors for every pilot area;
- Assessment of carrying capacities for the tourist routes on every pilot area;
- Development of programs and management plans of the ecotourism development on the key territories;
- Design of a long-term strategic program for ecotourism development in the regions. Integration of the ecotourism development in the regional plans of social-economic development.

2. Creation of conditions for ecotourism development

- Development of a set of routes and programs for different categories of tourists; creation of tourist product;
- Design of ecological trails in the model areas;
- Infrastructure improvement in the model areas (repair of the cordons and huts, purchase of tents and yurts, construction of small ecolodges, purchase of transport vehicles, construction of platforms and hides for viewing wildlife, carrying out the measures to increase the recreation capacities of the routes, etc.);
- Establishment of ecological and visitor centers in the model areas. Restoration of local museums of natural history, work out the complex of lectures and excursions for different categories of visitors;

- Consulting and training of the personnel at different levels (specialists of nature protected areas, guides, local people, representatives of administrations, travel agencies, etc.);
- Publication of information-advertising materials (booklets, books and photo albums about the nature of the regions and protected areas, leaflets about the ecotrails, guidebooks, field guides on plants and animals, video films, post cards, souvenirs with the symbolics, etc.);
- Establishment of illustrated web-sites with detailed information about the possibilities of ecotourism in the regions.

3. Ecotourism Marketing in Russia and abroad

- Join international ecotourism associations;
- Realization of complex marketing plan in Russia and abroad in collaboration with foreign partners, including press release program, participation in international conferences and trade shows, work with the institutional sector, advertising in mass media, etc.;
- Selection and establishment of cooperation with prospective foreign partners.

4. Management and Monitoring

- Establishment of informational and coordination centers in the regions with the purpose of providing for sustainable and effective ecotourism development in the region;
- Introduction of the mechanisms for monitoring ecotourism development and flexible system of its management.

5. Dissemination of Positive Experience

- Preparation of methodological literature to generalize the project experience;
- Publications in mass media, organization of workshops, implementation of the projects ROLL ("Replication of Lessons Learned").

THE EDUCATIONAL AND SCIENTIFIC TOURISM WITHIN RUSSIAN NATURE PROTECTED AREAS

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1. Introduction

One of the most promising kinds of ecological tourism in Russia is the educational and scientific tourism in nature protected areas. It is mainly directed at the organization of educational practical courses in the field for students. We think that this kind of ecotourism is important on the territory of Russia for the following reasons:

1. Russia is the only country which has a unique, very well organized system of nature reserves (zapovedniks). This system combines unique natural landscapes, plant and animal communities and measures to protect these areas. Thanks to the existence of these protected areas one can see wild nature in an ouched condition.

2. There are very good specialists who work in reserves. Most of them carry out their own scientific investigations there, and of course all of them know almost everything about the nature of their region. They can provide lectures and excursions on a very high scientific level.

3. The students and scientists are the most promising groups of tourists for Russian protected areas, because on one hand they do not need an extremely high level of service. We do not want to organize a high level of mass tourism on the territories of reserves. On the other hand, they are interested in scientific-cognitive filling of excursions, and this is exactly what can be offered.

4. The organization of such scientific-educational tourism is a real additional financial source of support for protected areas, which are in very difficult conditions now.

The Ecological Travel Center was established two years ago with the support of the Department of Protected Areas of Russian Federation Committee. Our group has extensive experience in the organization of practical courses in the field for foreign students. There were Polish students and German students from Muenster, Wuerzburg and Bonn universities. From the beginning we organized practical courses on the base of the Yenisei ecological station of Russian Academy of science. This station is situated in the middle stream of the Yenisei river in the protected zone of Centralno-Siberian reserve. Later we began to extend the geographical range of such excursions. During two years we organized student practical courses in two reserves in the European part of Russia - Oksky and Nizhnesvirsky. These trips were interesting because they gave possibilities to take a look at landscapes in two totally different nature zones. These were the taiga zone in Nizhne-Svirsky reserve and Southern pine forests in Oksky reserve. The additional benefit of these excursions is the possibility to visit the main Russian towns - Moscow and St. Petersburg.

The idea to make practical courses in different geographical regions to compare them has been extended later. Last year we organized practical courses for students of Marburg University with the leadership of Prof. Plachter along the Yenisei river. We began our route from the Taimyr Peninsula, went about 2000 km along the Yenisei by rented ship up to Krasnoyarsk. Then we went by train to lake Baikal and finished our journey in the town of Ulan-Ude, behind the Baikal.

Why did we choose the Yenisei for such a journey? The Yenisei is the only river in the world where it is possible to follow changing nature zones from tundra to sand deserts when one goes from North to South. It flows from South to North and cuts Eurasia in half. The length of it is about 3000 km. You can see almost all nature zones of the Northern hemisphere, spend a few days in each of them and receive your own impression about climate, soils, vegetation, animals, birds, etc. It gives us a sensitive feeling of the organization of our planet and makes even clearer our obligation to preserve the nature of it. There are two more great rivers in Russia which flow in the same directions - the Ob and Lena rivers. Of

course journeys along them are also remarkable, but natural zones here do not change so clearly. The Ob has a very wide floodplain and it is difficult to reach the basic banks of the river. The are mountain ranges along the Lena. They mix the whole picture of zone vegetation.

Finally for these reasons we chose the Yenisei. Following the Yenisei, we can see the following nature zones and subzones: polar tundra, typical and bushed tundra, forest-tundra, Northern, Middle and South taiga, dark mountain taiga, forest-steppe, steppe, semi-deserts and sand deserts. It is possible also to see azonal communities - the Yenisei floodplain and pine forests with Cladonia.

During this excursion one will become acquainted with soils and vegetation typical for each region and come to know about animals and traditional land use, conditions of ecosystems and nature protection actions in different regions. We plan to visit five reserves, situated along the Yenisei (Great Arctic, Centralno-Siberian reserves, zapovednik Stolbi, Chakasskii, Sayano-Shushenskii and Ubsunurskaya kotlovina). By the wishes of visitors the excursions can be organized to a number of industrial objects. Those are the Norilsk group of copper-nickel enterprises, forest factories of Igarka and Lesosibirsk, the Krasnoyarsk and Sayano-Shushenskaya Hydroelectric Power Station.

The duration of the tour is 1 month. The program is rather flexible and it is possible both to reduce and extend some parts of the excursion according to the special interests of visitors.

”Yenisei meridian” is one of a few tours in the frame of the project ”Green Net of Russia”. One of the goals of this project is to work with new routes along the greatest rivers. These rivers come through vast territories and connect a number of protected areas situated in different natural zones. Moving by boat is very ecological, safe and comfortable. You can observe nature, notice the animals and birds just from the boat. Now we work with the new project of the tour along another great river of Russia - the Volga river. This tour will begin from the source of the Volga in the upper swamps of Tverskaya region up to the mouth of the Volga in the Caspian sea. It will connect six reserves, situated in different natural zones along the Volga. It will be possible to follow the development of one of the biggest rivers in

the world from the first drop to the great stream and observe the changing vegetation, birds and animals as maturation of river. We propose that such a trip will be very interesting for geographers, biologists and ethnographers. In the future we propose to develop similar tours along other big rivers - Amur, Lena, Ob and Don.

We worked with different student groups both with and without the leadership of a professor. We can make the some conclusions from our experience:

1. It is easier and more productive to work with a group under scientific leadership.

2. It is better if there are students with different interests in the group. If there are zoologists, botanists, soil or political scientists in the group it leads to more profound discussions.

3. It is very important to prepare the final discussion at the end of the practical course. For example, last year we organized such a discussion in the institute of sustainable land use in Ulan-Ude. Final reports of German students were presented and discussions were held in the presence of scientists of Institute. It increased the responsibility of students for their practical work.

4. Also the preparation of published reports after a tour is very useful. Here are examples of such reports, prepared after our previous practical courses. It is very useful both for students as well as for us, because we can estimate better the effectiveness of our work.

It is necessary to say that such a type of observational excursions is only one kind of educational-scientific tourism. We really hope that it can be the beginning of a future cooperation of Russian reserves and foreign Universities and Institutes. Some of the students, after first becoming acquainted with scientific work in reserves can find contacts interesting for them and later return to this place to continue their Ph.D. and Diploma works. We hope that it will be the way to establish scientific contacts with foreign Universities and Institutes. Such contacts are very important for Russian reserves.

2. Conclusions

The main effects we plan to get as a result of the development of scientific-educational tourism in Russian protected areas are:

1. To establish and extend scientific contacts in the problem of biodiversity conservation between Russian reserves and Western universities and nature protection organizations.

2. To receive additional financial support for Russian protected areas, which is absolutely necessary for biodiversity conservation in the momentary economic situation.

3. To increase the level of ecological, geographical and biological education of Russian and foreign students.

4. To make possible for foreign young people to become acquainted with the nature, culture and history of Russia and by this way help to consolidate communities.

Considering all that has been discussed above, let us hope that the development of educational student and scientific tourism in Russia will be very intensive in the near future. Our joint task is to organize it on a high scientific and educational level and to make it useful for nature conservation.

CONTRIBUTION OF QUALITY TOURISM TO THE SUSTAINABLE MANAGEMENT OF PROTECTED AREAS: SOME RECOMMENDATIONS RESULTING FROM 15 CASE STUDIES IN THE EUROPEAN ECONOMIC AREA[22]

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1. Introduction

The decision related to tourism adopted by the Commission on Sustainable Development in April 1999 identifies the most important issues in economic, social and environmental terms. Moreover, in the framework of the Convention on Biological Diversity, the draft recommendation prepared by SBSTTA in June 1999 highlights the need to develop strategies and planning aiming at the correct balance between economic, social and environmental concerns.

Some rural tourist destinations covering or surrounding protected areas are making real efforts towards quality tourism which contributes to bringing benefits to the local economies, meeting social needs and preserving the cultural and natural environment. They have defined strategies with the key partners, are implementing good practice and are constantly developing monitoring and evaluation tools for adjusting that approach according to its economic, social and environmental impact. To be simultaneously successful in all these different areas at the level of tourist destinations requires a global approach based on the principles of sustainable development; we call it Integrated Quality

[22] The 15 rural areas selected as case studies are: Ballyhoura (Ireland), Basilicata (Italy), Bregenzerwald (Austria), Lungau (Austria), Monta a de Navarra (Spain), Pays Cathare (France), Pohjois-Karjala (Finland), Sächsische Schweiz (Germany), Schouwen West (Netherlands), Sitia (Greece), Skaftárhreppur (Iceland), Trossachs (United Kingdom), Vale do Lima (Portugal), Vallonbruck (Sweden), Vosges du Nord (France). Requests to receive the final publication may be sent to pierre.godin@cec.eu.int

[23] prepared on the basis of the result of a study about quality rural tourism carried out in 1998-99 for the European Commission by Richard DENMAN (The Tourism Company, United Kingdom) in association with Simone GRASSMAN (Futour, Germany) and Herbert HAMELE (Ecotrans network).

Management (IQM)[24]. The purpose of this paper is to draw lessons from the experience of these destinations and to make recommendations useful for the sustainable management of tourism in protected areas.

IQM is a continuous cyclical process, even if, for the purpose of making a simple presentation we can identify three main stages: "Before", "During" and "After" the implementation of practical measures.

2. Before implementing practical measures: Working together towards a strategy

Setting the process going

Integrated Quality Management should become a continuous process in a destination. However there are often certain trigger factors that set it going, be they to do with improving competitiveness, the local economy or the environment. Whatever these may be, it is important to be inclusive from the outset.

- Hold initial open meetings for people to express their needs, concerns and interests.
- Seek to involve both local and national agencies, including protected areas authorities.
- Consult with and involve all sectors to make the process as integrated as possible.

Leadership and partnership

Rural tourist destinations covering and surrounding protected areas are typically made up of small businesses, scattered communities and often small municipalities. Integrated quality management requires effective structures for leadership and co-ordination.

[24] For more information about concepts and instruments related to quality and sustainability in tourism, see: Godin, P., *Quality, Environment and sustainable development in tourist destinations: towards an integrated approach*, in IITF Integra, 2/99, Vienna, June 1999.

- If possible, base the destination on a well defined geographic or administrative area, easily recognised externally and internally, where it is natural for people to work together.
- Choose an organisation to take a lead on tourism, which has the support and participation of the local authorities and private sector and good regional and national links.
- Work closely with local trade bodies for the different sectors of tourism. If necessary establish a local tourism association and local network groups which can work on quality, including sustainability issues.
- Keep local people well informed, perhaps through regular open meetings, and involve the key community organisations and services in tourism. Encourage them to become involved in enhancing the environment and the quality of the visitor experience.
- Strengthen internal communication and keep good links with the local media.

Whatever form the leadership organisation takes, among the key factors for success is full participation by the local authority(s), including links to all the relevant departments such as environmental management, planning and transport.

Some examples related to leadership and partnership:

In a few cases, including the **Trossachs** (UK) and **Schouwen West** (NL), a joint project bringing together public and private interests has been established to tackle environmental and quality issues.

In the **Vosges du Nord Nature Park** (F), SYCOPARC regroups local and regional authorities. It is also the regional development organisation and has formed its own tourism association for the park.

Strategy

A clear strategy is a major factor in achieving quality management objectives, including sustainability issues. It serves to focus attention on priorities, co-ordinate action between

the players, raise the profile of tourism issues and political awareness of them, and act as a persuasive tool in seeking support and funding.

- Set aims and objectives which address environmental and economic issues together, with tourism forming part of the link.
- Make clear statements about the purpose of improving quality, and the various processes involved such as improving feedback.
- Undertake a careful assessment of resources, markets, economic and social conditions and environmental needs and constraints.
- Consider the needs of different kinds of existing or potential visitor (market segments).
- Relate the tourism strategy to other policies and priorities in the destination, including planning, rural development, agriculture and environment (Local Agenda 21).
- Be prepared to take time over consultation with local enterprises and communities, so that they feel involved and treat it as their strategy.
- Where possible set clear targets which can be checked and measured.
- Try to create a document which is visionary and stimulating.
- See the strategy as a dynamic process, regularly taking stock and reporting back to people on what has happened.

Some examples related to strategy:

In **Schouwen West** (NL) and the **Trossachs** (UK) the case studies centre on a comprehensive approach to improving quality from an environmental perspective.

In the **Vosges du Nord Nature Park** (F) the tourism strategy is contained within the comprehensive Charter for the Park and imaginative practical initiatives relate tourism and land management.

3. During the implementation of practical measures: Delivering a quality tourism experience

Marketing and communication

Visitors' experience of a destination starts before they arrive and finishes with memories and planned future visits. Communication should be about keeping in close touch with them and delivering persuasive but also accurate messages and images that don't lead to false expectations and that encourage responsible behaviour.

- Consider carefully what impression is given to visitors through promotional campaigns, and get feedback from them about their reaction.
- Use methods of communication that are able to give a detailed and accurate picture of the area, including well prepared print, well briefed media and well planned use of the Internet.
- Be prepared to rationalise marketing, working together on fewer campaigns of better quality.
- Pursue opportunities for making it easier for visitors to book a holiday in the destination, including central reservation services and work with operators on creating packages.
- Maintain contact with past visitors, through maintaining a database, mailings etc.
- Always consider whether it would be more effective to promote the destination within regional or national campaigns rather than on its own.

Welcome, orientation and information

Providing visitors with a friendly welcome, ensuring that they have all the information they need when and where they want it, is vital to the quality of the experience. Effective information can also encourage return visits and help with managing the flow of visitors.

- Help hosts with how they present the area to their guests, through training and supplying materials for them to use.
- Provide visitors with information which will help them respect and behave responsibly towards the local environment, traditions and way of life.
- Ensure local information print is well distributed to where visitors need it and has clear, accurate and sufficient detail.
- Improve the quality of local information centres, including staff training, opening hours and attractions to draw people in.

- Maintain a signposting system for visitors which is logical and consistent throughout the whole area.
- Keep abreast of new opportunities in information technology, including screen based systems at information points and in accommodation.

A good example of improving service quality in information centres through staff training is the Ticket Découverte project in the **Vosges du Nord Nature Park** (F) nature park, involving a regular series of visits and discussion meetings, and including people from tourism enterprises as well.

Accommodation

In many rural tourist destinations covering and surrounding protected areas there is demand for a wide variety of accommodation within a broad price range. Visitors are becoming more demanding in terms of standards of facilities and comfort but are also looking for characterful, traditional accommodation and hospitality. Freedom and flexibility is also important, especially for families.

- Keep a check on the volume of accommodation in the area and consider adopting policies to restrict certain forms of development in favour of improving quality.
- Encourage accommodation operators to comply with national inspection and grading schemes, and to join membership organisations promoting quality in their sector (such as agrotourism or caravan organisations).
- Encourage accommodation operators to reflect the local destination in their materials and activities, and to provide small extra services.
- Be aware of the particular needs and opportunities for quality in different sectors, such as agrotourism, caravan and camping sites, country houses, rural hotels, village co-operatives and hostel/hut accommodation. Encourage operators within these sectors to work together at a local level for mutual support and to improve quality.

Some examples related to accommodation:

In **Vosges du Nord Nature Park** (F), Gîtes Panda are a special kind of rural self-catering accommodation that has to fulfil certain environmental standards. The label is granted by the WWF in conjunction with the French Federation of Regional Nature Parks and Gîtes de France. Gîtes Panda provide guests with a box of information and instruments for discovering nature.

In **Vale do Lima** (P), personal service from individual hosts is combined with beautifully conserved buildings in an attractive environment.

In **Montaña de Navarra** (E) the Rural Hotels Association requires all its members to have under 25 rooms, an attractive environment, and use traditional architecture.

In **Sächsische Schweiz** (D) the tourism strategy discourages new hotel development but favours conversions of existing buildings for accommodation.

Local produce and gastronomy

Improving the quality of local food and handicrafts provides opportunities not only to give visitors a special, rural and locally distinctive experience, but also to support the rural economy and traditions. Strengthening the link between gastronomy, food production, agriculture and maintenance of farming landscapes provides possibilities for truly integrated quality management.

- Help to form networks of local food producers and craftspeople, and work with them on improving the quality of production and distribution, e.g. through food labels.
- Improve distribution mechanisms and ways of promoting sales to visitors.
- Encourage restaurants to reflect the traditional gastronomy, through training, publicity and special events.

For example, the ‘Naturally Lungau’ label is given to a whole range of enterprises who sell or use organic produce and materials made or grown in **Lungau** (A).

Attractions and events

The quality of the visitor experience will depend partly on the range and availability of attractions and events. One should avoid uniformity; people travel to see different things. The principles of authenticity and distinctiveness are particularly important here.

- Check visitors' reaction to the amount and quality of attractions and events that are available, including the balance of open air and wet weather attractions.
- Select imaginative methods of interpreting the rural heritage, both cultural and natural, that are appropriate to the site, and stimulate the interest of different types of visitor, including children.
- Encourage attractions that are lively and enable visitor participation.
- Pay particular attention to the special personal quality of interpretation provided by local guides and introduce training where necessary.
- Combine small attractions and events to improve quality and impact, through joint admission, trails, festival programmes and promotional packages.

For example, in the **Vosges du Nord** (F), the nature park authority developed a choice of walking packages on trails, linking many small accommodation operators, and organising baggage transfers.

Countryside recreation

In many rural tourist destinations covering or surrounding protected areas there has been rapid growth in demand for recreation, especially walking and cycling, but also other countryside sports, with many people taking activity holidays for the first time. Therefore, all rural areas should address the quality of their facility provision, though opportunities and priorities will vary in different locations.

- Ensure good safety and environmental standards.
- Seek agreement on managing the amount and impact of use in sensitive areas.
- Create walking and cycling trails to cater for different levels of users, including links to villages and heritage sites.

- Encourage links between activity providers and other tourism enterprises, including the provision of inclusive packages and looser arrangements to meet the special requirements of visitors on activity holidays.
- Improve local sports and leisure facilities for joint use by visitors and locals.

Some examples related to recreation:

In **Sächsische Schweiz** (D) climbing clubs have reached a successful agreement with the national park on the carrying capacity of different crags and the behaviour of climbers.

In **Pohjois-Karjala** (FIN), packages combine a whole range of activity operators, guides and crafts people who provide joint forest activity programmes.

Environment and infrastructure

Maintaining the quality of the environment is essential to the appeal of the destination as well as for sustainability. The provision of transport and other local services should meet the needs of visitors and local people and reflect environmental policy.

- Seek to increase the proportion of visitors using public transport to reach and travel in the destination, by improving its quality and increasing its appeal through well planned routes, integrated timetabling and promotion.
- Encourage local services such as shops and banks to reflect the needs of visitors.
- Ensure that land use planning policies reflect the tourism strategy, controlling poor development and giving positive guidance on appropriate design.
- Involve any designated protected areas in local tourism planning and action.
- Encourage and support local people to improve the environment in their own villages and nearby countryside, through co-ordination, action groups and other incentives.
- Inform visitors about the environmental issues in the area and seek their support.
- Encourage tourism operators to be more environmentally friendly, through training, advice and eco-labelling.

- Where necessary, consider establishing comprehensive improvement and management schemes, involving the tourism industry, local communities and environmental organisations.

Some examples related to environment and infrastructure:

In **Lungau** (A), an integrated transport timetable and ticketing scheme has been negotiated, linking local buses to national bus and rail services with agreed minimum transfer times.

'Park and ride' local bus services have been introduced in the **Trossachs** (UK), **Lungau** (A) and **Schouwen West** (NL).

The interactive approach in **Schouwen West** (NL) is a good example of involving the tourism industry in forming land use plans. In some destinations, where the overall planning system may be less effective, specific local agreements about sensitive sites can work.

In the **Vosges du Nord** (F), the park authority has taken the lead for the development of sustainable tourism. Success has been achieved by integrating their objectives within the tourism strategy for the destination, and involving them more closely with local authorities and local tourism businesses. This approach is being fostered by a new European charter for sustainable tourism in protected areas. In this framework, many other parks provide a major resource for sustainable rural tourism. They are taking a positive attitude towards visitors, as a positive force bringing both environmental and social benefit, while ensuring strict controls and management policies.

In the **Trossachs** (UK) and **Vosges du Nord Nature Park** (F) all main tourist brochures contain suggestions to visitors on how to be sensitive to the environment (visitor codes).

Regular talks on the environment are held in **Skaftárhreppur** (IS) for visitors and local people. Groups in **Sitia** (GR) are told about local environmental, agricultural and community issues at the start of their stay.

In **Skaftárhreppur** (IS) groups are invited to buy and plant trees in a special tourist forest to help counter soil erosion.

Local eco-labels have been used successfully in **Lungau** (A) and **Bregenzerwald** (A). In the **Trossachs** (UK) various enterprises participate in the Scottish Tourist Board's national branded 'Green Tourism Business' scheme.

4. After the implementation of practical measures: Strengthening management and monitoring processes

Understanding visitor needs and seeing they are met

A fundamental requirement of any destination pursuing integrated quality management is a process of understanding visitors' requirements and checking whether they are being met. Feedback from this should help to drive quality improvements and sustainability.

- Research the image and expectations of the area held by potential visitors, including opinion formers such as tour operators and journalists.
- Undertake a regular destination-wide survey of visitors in the area that seeks details on the types of visitor who come and specific information on needs and satisfaction.
- Work with local enterprises on a system of enabling all visitors to provide feedback, through comment forms, suggestions books, questionnaires in publications etc.
- Ensure the process of handling any complaints is efficient and courteous, and leads to rectifying action where necessary.
- Take care to obtain views on visitors' needs from people who meet them on a daily basis, such as accommodation operators, information centre staff etc.

Setting, checking and communicating standards

The process of setting and checking standards for the different tourism facilities and services in a destination is important for quality and sustainability but can be time consuming and needs to be well planned.

- Select which types of quality standard, in particular environmental standards, are most relevant to the destination and the strategy.
- Decide what kinds of enterprise and activity should be subject to formal standards, and set targets for the proportion of them that should be covered.
- Encourage maximum participation in any relevant national and sector level quality standards and checking procedures, including schemes run by organisations and agencies specialising in rural tourism, such as agrotourism organisations.
- Work with local network groups to establish any special local standards and checking procedures that may be considered necessary or beneficial, building on but not duplicating the above.
- Identify quality and sustainability standards for the functioning of the destination's own tourism services.
- Participate in studies that check and compare the overall quality of the destination, and comparative benchmarking studies.

Some examples related to standards:

The criteria for the 'Naturally **Lungau** (A)' label and Park Mark in the **Vosges du Nord Nature Park** (F) are interesting examples of standards for reflecting qualities of authenticity of destinations.

The eco-label scheme in **Bregenzerwald** (A) is based on good practice with respect to energy, waste, use of resources and other aspects of the relationship to the local and global environment.

Working with people on training and improving quality

The process of improving quality in line with identified standards requires a close working relationship between everyone involved in tourism in the destination, and well constructed training and assistance programmes which meet their needs.

- Bring tourism enterprises together in local network groups, where they can identify needs, encourage each other by demonstration and plan joint action.

- Design training programmes to encourage participation, with well targeted short courses and built in incentives.
- Provide access to training in customer care, technical skills, local knowledge, sustainability and overall business management, as appropriate. Where possible use professionally established and verified training modules and materials.
- Pay particular attention to helping small rural businesses fix the right price in relation to quality offered
- Take care over the training needs and motivation of local tourism staff in the destination, such as information centre staff and guides.
- Provide, or point to, sources of practical advice on quality improvement and link this to financial assistance where available.

For example, in **Pohjois-Karjala** (FIN), training has been based on a selection of elements required for the international standards related to quality management (ISO 9001) and environmental management (ISO 14001) made relevant to very small tourism businesses.

Monitoring impact on the local economy, community and environment

As well as obtaining feedback from visitors, it is important to maintain a check on the wider impact of tourism so that adjustments can be made in management, with a view to contributing to sustainable tourism development. However, monitoring impact is still currently a weak point in many tourist destinations, probably because efficient and user-friendly tools and indicators are not available.

- Set up a mechanism for obtaining regular feedback from businesses on level of performance and general views about the destination and visitor markets.
- Monitor the impact on the local economy by collecting information on levels of spending by visitors and the amount of employment in tourism.
- Seek feedback from the local community, such as through regular open meetings and contact with community organisations.
- Maintain a check on possible environmental impacts, through observation, maintaining a record of development, seeking views of visitors and residents and checking pollution levels.

Some examples related to monitoring impact on the environment:

Hardly any of the case studies have established separate, systematic monitoring of the impact of tourism on the environment. This can be quite costly and time consuming. The **Trossachs** (UK) has successfully used simpler methods based on observation and counting visitor volumes. In most of the case studies it was felt that levels of tourism were too low, or dispersed, to cause environmental problems. However, there are a number of straightforward measures that can be taken.

- Opinions of residents and visitors on environmental impact can be checked, through the methods mentioned above.
- Visitor surveys enable any apparent environmental problems to be reported. In the **Trossachs** (UK) visitor surveys and traffic counters on roads are used to keep a check on visitor flows and changes over time.
- More sensitive sites merit regular observation. In **Skaftárhreppur** (IS) the tourist officer maintains a personal check on sites where there has been some problem with erosion of paths.
- A brief assessment can be undertaken each year of the positive and negative effects of development, including initiatives which have helped to conserve buildings and landscapes and new development which may have been intrusive.
- A check on air and water pollution measures can be maintained. For example, **Lungau** (A) uses monitoring equipment to provide a regular measure of air quality, in a destination which has concentrated on promoting alternatives to car transport.

5. In brief

Success in implementing an IQM approach in tourist destinations depends on the respect of certain principles, in particular: integration of quality at all levels, including the environment; a combination of authenticity, distinctiveness and creativity; fitting tourist supply with targeted market segments; monitoring and managing the impact on the environment and the local community; professionalism; interdependence between tourism

and other local activities; co-operation and commitments of all partners with a long-term vision; and last but not least, patience and continuous feedback.

These recommendations drawn from case studies achieved in rural tourist destinations covering and surrounding protected areas can bring a substantial contribution to the sustainable management of biological resources. However, it should be properly implemented according to each local situation.

Session 3: Stakeholder Participation

TOURISM AND BIOCULTURAL DIVERSITY: DESIGNING POLICIES, PROGRAMS & ACTIVITIES CONSISTENT WITH ARTICLE 8(j) OF THE U.N. CONVENTION ON BIOLOGICAL DIVERSITY

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1. Introduction

Tourism entered the agenda of the United Nations *Convention on Biological Diversity* ("CBD") in May 1998. A year later, during the Fourth meeting of the CBD's Subsidiary Body on Scientific, Technical & Technological Advice ("SBSTTA4") in Montreal, the first substantive deliberation of tourism issues occurred. In preparation for this debate, the World Conservation Union ("IUCN") featured tourism as a theme at the *14th Global Biodiversity Forum*, inviting recommendations on how to integrate biodiversity concerns into national tourism plans.

This paper summarizes preliminary submissions made in relation to Article 8(j) by the International Support Group for Sustainable Tourism. Its emphasis is on process, because there is still no comprehensive or compelling process in place internationally within the tourism sector to avoid the ongoing infringement of indigenous or human rights. New mechanisms for analysis and decision-making are required if Parties are to have accurate information on industry standards and thereby be equipped to develop policies, programmes and activities that are in the spirit of Article 8(j).

In respect to the tourism sector, it should be noted that many of the applicable precedents for implementing Article 8(j) stem from Canada. Recent developments in Canadian policy for land and resource management have led to a variety of new initiatives and pilot projects for facilitating partnerships between the public and private sectors and indigenous peoples. Although these programs reflect a uniquely Canadian political context, they

nonetheless offer universal lessons on relationship building, which can be drawn upon to structure new processes elsewhere. Such precedents for joint problem solving, innovation and capacity building are fundamental if tourism is to become a positive force in the conservation of biological and cultural diversity.

2. Policy Development

Decision Making in the Tourism Sector

Integrating biodiversity concerns into national action plans for tourism requires inclusive decision-making among the principle users and conservers of the marketable components. This entails a shift in mindset, since consultation is generally viewed by governments and industry as cumbersome, and is thus more conciliatory than exploratory. In most jurisdictions where some form of consultation is underway, the indigenous peoples and other local communities historically acting as "conservers" are now viewed as one of several stakeholders. Indigenous peoples have "observer" rights only in sectoral decision making on access to and use of their homelands, i.e. consumption, despite their historical relationship with the land.

Prior to negotiating the CBD, countries had little common motivation to experiment with participatory planning, other than a desire to somehow mobilize community resources for development. Consensus among CBD Parties on adopting an ecosystem approach to biodiversity conservation has significantly changed this. The challenge now is not so much how to generate support for policy, but how to best develop policy in the spirit of Article 8(j). Underlining this shift was the 1997 *Berlin Declaration on Sustainable Tourism*; its provision for limiting or prohibiting tourism in ecologically and culturally sensitive areas put the spotlight on a void. What is culturally sustainable? How can governments ensure effective ways for indigenous peoples and other local communities to share their technical knowledge through the CBD and related dialogues on tourism? What new processes for analysis and decision making are required to ensure that indigenous rights and human rights are not compromised by tourism development?

Although the ecotourism concept is largely premised on the notion of community participation, there are few instances where opportunities for local involvement have amounted to more than public relations directed at either funding agencies or a marketing boost. More than one regional ecotourism circuit boasting the "authentic" participation of indigenous peoples and other local communities has jeopardized the very land and culture base that sustains it, by running the usual course of high volume tourism. Illustrating this is the *Mundo Maya* program in Meso America, which had a promising start conceptually, but then became indistinguishable from other mass tourism products on the market.

In response to this type of trend, the United States based Ecotourism Society is advocating policies based on "limits of acceptable change" ("LAC") instead of "carrying capacity". Often, in government agencies overseeing environment and economic development, LAC translates into a policy of "no net loss" - in other words, the substitution of lands deemed to be equivalent. Many indigenous peoples have found that their rights become lost in this planning formula. They are displaced by tourism from their traditional homelands and/or culturally and ecologically vital areas like sacred sites, facing threats to not just food security and overall health, but also their survival as a people. Consequently, the trust for consultation and other community participation exercises is low.

In the tourism sector, like elsewhere, there is more information on the theoretical merits of participatory planning than on strategies that are demonstrably successful on the ground. Most governments with experience liaising with communities are trying to generalize local lessons into a template, which seldom results in a culturally relevant or effective process. South Africa is one of many nations grappling with how quickly standard mechanisms for outreach can saturate a bureaucracy. During the *U.N. Commission on Sustainable Development* proceedings on tourism in New York in April 1999, its delegate voiced: "We are literally frustrating ourselves with consultation." One question this raises is how, and from what starting point, a meaningful process for dialogue can be shaped.

Consultation Case Study

Given the apprehension among governments and industry over implementing Article 8(j) of the CBD, it is vital to examine the precedents that exist internationally for involving

indigenous peoples and other local communities in sectoral planning. Where the focus of consultation is specifically indigenous peoples, the examples and lessons are poorly documented; however, indigenous leaders have often commented publicly, delivering the same message several times over, as to what actually works in terms of a consultation strategy, and why. This type of feedback gives useful parameters for building new relationships for the conservation of biocultural diversity.

An important initiative to analyze is the referrals process established by the government of Canada, as it is the most high profile initiative of its kind internationally. This process, a legally required step in ministerial decision making with regard to land and natural resources, serves as an interim measure to Canada concluding treaty negotiations with indigenous peoples in the province of British Columbia. Through it, government agencies consult with the concerned First Nation prior to undertaking or authorizing activity on "public" lands that fall within its traditional territory. Proposed projects of all sizes are referred for review, from permits for small ecotourism enterprises such as whale watching, to large-scale ski resort development. As well, referrals related to forestry and other sectors are forwarded, many of which may impact an indigenous community's ability to develop its own tourism potential as a means to reinforce traditional knowledge systems and lifestyles while meeting economic needs.

One intent of the Canadian referrals process is to facilitate the protection of indigenous rights, e.g. to minimize industrial access and use that could impede customary practices. That said, it has not been indigenous peoples' experience that the process works to their benefit. The perception among indigenous leadership is that government consultation, as presently structured, facilitates "business as usual". They see large portions of their peoples' traditional territory continuing to be alienated for economic development conceived and controlled by third parties, without proportionate revenues or other benefits accruing to their people, or adequate mitigation of negative impacts.

Problems identified by indigenous peoples in Canada with regard to this referrals process include:

- it was initiated by order of the Courts, reflects a minimal interpretation of the Court's instructions, and thus is not conducive to communicating in "good faith" or building trust
- it was conceptualized without dialogue with indigenous peoples and therefore does not reflect their interests, needs, or decision-making traditions
- its implementation is left to individual ministries, resulting in several "styles" of consultation, i.e. a framework of inconsistent and confusing policies
- it lacks the funding and capacity building provisions necessary for indigenous peoples to properly respond, i.e. to provide thorough technical commentary

Factors such as these have undermined the credibility of the process, giving indigenous peoples little incentive to participate. Often, three or four letters of notification or project proposals will arrive to their respective offices per week from various ministries. The recipient community typically lacks the budget or in-house technical specialists, e.g. foresters, hydrologists, or geologists, to review even one of these referrals. Therefore a letter of acknowledgment is usually sent out stating the capacity barriers which preclude responding. There is no room in such a process for knowledge sharing or dialogue toward adaptive management, let alone protecting indigenous rights in keeping with international laws like the CBD. First Nations' communities become captive to the lawyers and other costly consultants that have created an industry around consultation.

Nearly all debate on how this referrals process should be amended or replaced touch on the theme of biodiversity. Indigenous peoples objecting to the shallow level of project review that the process provides for voice concern over the large discrepancy between legislated standards for environmental protection, and the sacred balance long taught and maintained through their own customary laws. Increasingly, communities are contemplating civil disobedience or litigation as a means to express their frustration with the accelerating commercialization and subsequent loss of what we call biodiversity. In the words of one tribal chief:

> "We are all experiencing a total shift in the cycles of the earth; these are just an accumulation of the debt that we must pay for what we have taken and not returned. Tourists can bring many benefits, but people that are of the tourist

nature spend 95% of their time in the system that is destroying it all. Simply put, we will pay the debt."

A number of lessons have been gained from the British Columbia referrals process, which apply to the implementation of the CBD. Where consultation is undertaken by governments and/or industry, it should have the objective of real dialogue or a breakdown in communication is likely to occur .

Principles for meaningful consultation with indigenous peoples and other local communities include:

1. Shared conceptualization of the consultation process, including the mechanisms and tools for implementing and evaluating the process, i.e. no templates or *faits accomplis*
2. Completion, prior to commencing consultation, of a "Memorandum of Understanding" elaborating consensual terms of reference (e.g. roles and responsibilities, provisions for funding and capacity building, terms for information sharing)
3. Commitment to joint reviews of the process' effectiveness at regular intervals
4. Proactive collaboration to anticipate and avert damage to the dialogue process by conflict arising from different positions, interests, and circumstances
5. Cross-cultural education and exchanges for involved government/industry representatives
6. Provision for principled negotiation of specifics as talks mature and/or issues arise (see below)

3. Planning for sustainable tourism

In formulating guidelines for sustainable tourism, the first gap to address is how to define cultural sustainability. As noted above, this is an outstanding task left by the 1997 *Berlin Declaration on Sustainable Tourism*, which was signed by the Secretariat of the CBD and

World Tourism Organization as well as the United Nations Environment Programme and the Global Environment Facility, amongst others. Addressing it must be given priority if biocultural diversity is to be preserved. This means ensuring the financial means for indigenous peoples and other local communities to analyze and define on an ecosystem, i.e. homeland, level what is culturally sustainable in relation to tourism, by developing their own culture-specific criteria, indicators, and early warning systems (e.g. language erosion, loss of plant genetic diversity, ecosystem disturbances and other signs observed by the Elders).

Currently, there are few initiatives within the tourism sector to counteract the loss of indigenous knowledge or promote customary innovation systems. Those that exist are being forwarded by indigenous peoples themselves and encounter significant institutional resistance (Johnston 1998 and 1999). The definition of development subscribed to within most government and development agencies is very different from how indigenous peoples think about development (Johnston 1997). Meanwhile, many societal and professional prejudices continue toward customary knowledge and innovation systems and the ways that such knowledge is documented and applied.

Internationally, precedence is given by decision makers to top-down inquiries coordinated by multilateral organizations and their professional staff. Several "expert" sessions occurred in 1998 and 1999, including the *Symposium on Sacred Sites, Biological Diversity & Cultural Diversity* convened by UNESCO in Paris, France; the *Cultural Site Management Workshop* hosted by the World Bank in Washington, D.C.; and the first and second *Roundtable on Intellectual Property & Indigenous Peoples* organized by the World Intellectual Property Organization in Geneva, Switzerland. Parallel to these sessions UNESCO launched a new work program on indigenous knowledge and the World Bank moderated an internet dialogue on the topic.

Although this type of dialogue forum can be useful for exploring issues and raising awareness, concerns have been expressed by many indigenous peoples, including:

- the primarily third party analysis of possible solutions, i.e. the analytical framework is designed, implemented and evaluated by agencies' professional staff

- the barriers to meaningful indigenous participation posed by invitation methods and the low priority accorded to indigenous funding
- the tendency to involve non-representative indigenous spokespersons instead of formal leadership and/or actual indigenous tourism practitioners
- the information gathering emphasis, and thus marginalizing effect vis-a-vis decision making, of most "consultation" with indigenous peoples
- the limited access to the internet of most indigenous organizations, and increasing tendency of institutions to use the internet for "due diligence" in communications
- the continuing "burden of proof" on indigenous peoples, particularly in monitoring, promoting and enforcing sustainable use within their homelands

This feedback highlights the need to explore partnership approaches to protecting biocultural diversity. One area in the tourism sector where change is imminent is in the design and management of protected areas. Joint management boards between state governments and indigenous peoples are becoming a new benchmark. In western Canada, three high biodiversity ecosystems of global significance are jointly managed via the *Gwaii Haanas Agreement* (1993) with the Haida people, the *Clayoquot Sound Agreement* (1994) with the Nuu-chah-nulth people, and the *Kitlope Watershed Agreement* (1995) with the Haisla people. Such arrangements are proving to be a successful vehicle for connecting indigenous knowledge with other science to develop more holistic objectives, methodologies, and assessment tools, provided that joint problem solving and decision making are undertaken. There is now a second generation of collaboration agreements in process, one notable example being the Clayoquot Central Region Board.

Lessons derived from these experiences have broad application to implementing Article 8(j) in the tourism sector. Of particular note are the principles for negotiations that are emerging as a result of testing new models for collaborative planning and management.

Principles for meaningful negotiation with indigenous peoples and other local communities include:

1. Preparation of a formal Negotiations Protocol that is without prejudice to indigenous rights

2. Interim measures for the protection of traditional resource rights during the negotiations
3. Process to redress past grievances during the negotiations, while identifying and opening new opportunities for cooperation
4. Sharing of perceived constraints by each negotiating team, with frank discussion of solutions and continuing impediments
5. Collaboratively determined "climate goals" for the negotiations (e.g. respect, generosity, humility, accountability, creativity, healing)
6. Clear terms for attendance at negotiating sessions by third parties such as NGOs and industry associations
7. Maintenance of a common book of documents to focus the dialogue
8. Guarantees of confidentiality and other communications discretion
9. Monetary contribution agreement from government and/or industry for life of negotiations to offset discrepancies in capacity between negotiating teams
10. System for addressing new business arising in course of negotiations, e.g. subsidiary agreements for pilot projects (see below)

4. Ground level activities

As guidelines are formulated for sustainable tourism, it is important to bear in mind that (1) indigenous peoples' homelands are the target of the vast majority of ecotourism; (2) indigenous cultures themselves have been increasingly commercialized by third parties as such niche markets are developed; and (3) indigenous peoples are often the service backbone of the industry, though usually on paternalistic and/or exploitative terms which contravene international treaties for indigenous rights and human rights. These are the current industry standards (see Johnston 2000).

Declaring the year 2002 to be the International Year of Ecotourism within the U.N. is a potentially damaging step, given the large gap between the theory and practice of ecotourism, and the tendency for market-driven ecotourism to accelerate the erosion of traditional resource rights. As of yet, there have been no significant shifts toward improved business practices in relation to local communities, especially where indigenous peoples

are concerned. There is a need for performance audits tied to certification, and other regulatory tools like investment equity indexes, which specifically track indigenous rights in the tourism sector and thereby promote respectful business conduct.

Equally important to the realization of tourism as a positive force in local development is the removal of trade barriers to indigenous entrepreneurial initiatives. Although indigenous peoples have long traditions of trade and are rightful players in the private sector, colonialism and neo-colonial "development" prescriptions have created dependency and poverty in indigenous communities worldwide (see Johnston 1997). Against this historical backdrop, it is clear that implementing Article 8(j) and related provisions of the CBD involves not just benefit sharing but also capacity building. Re-building capacity is critical to indigenous peoples being able to exercise their right to self-determination; it is equally fundamental to building conservation based economies which link indigenous knowledge and innovation systems with economics, to activate with integrity the concept of "ecotourism".

Conservation organizations like Ecotrust (www.ecotrust.org and www.nativemaps.org) and The David Suzuki Foundation (www.davidsuzuki.org) have set important precedents for respectfully supporting indigenous capacity building in the tourism sector. Partnerships of this type demonstrate effective ways to work together to achieve common goals for conservation and economic development.

Principles for respectful partnership building in the tourism sector with indigenous peoples and other local communities include:

1. Prior informed consent as the industry standard
2. Self-identification by the involved indigenous people(s) of their priorities for capacity building prior to any negotiations starting
3. Readiness to negotiate as the foundation for dialogue, i.e. equivalent capacity and access to resources and information
4. Avoidance of "deal brokers" - relying instead on relationship building through face to face dialogue and continuity in representation

5. Methodologies and timelines for impact assessments that enable indigenous peoples to document their customary uses of an area without compromising their intellectual property, religious freedom, or traditional resource rights
6. Provisions in management framework for respectfully integrating customary conservation expertise, including practices for documenting ecosystem knowledge (e.g. stories, prophecies, arts)
7. Joint selection of "experts" hired or otherwise utilized in an advisory capacity
8. Benefit sharing in the form of principled agreements, i.e. business contracts negotiated in good faith (e.g. proportionate royalty payments, equitable fee for service arrangements)
9. Early consensus on a mechanism for conflict resolution
10. Respect for the history and function of customary protocols and law

5. Conclusion

The international legal and policy framework on indigenous and human rights sets out in clear language how to achieve policies, programmes and activities that are consistent with the principles of the United Nations, and that support the conservation of biological and cultural diversity. Several directives speak specifically to the role of indigenous peoples in formulating national action plans that affect or potentially affect their cultures and/or homelands. These include:

***Agenda 21* of the Earth Summit:**

Article 26.3(b): calling for the "Establishment, where appropriate, of arrangements to strengthen the active role of indigenous people and their communities in the national formulation of policies, laws, and programmes relating to resource management and other development processes that may affect them"

***Convention 169* of the International Labour Organization:**

Article 7: Indigenous peoples "have the right to decide their own priorities for the process of development... they shall participate in the formulation,

implementation and evaluation of plans and programmes for national and regional development which my affect them directly"

***Operational Directive 4.20* of the World Bank:**
Article 15(d): "mechanisms should be devised and maintained for participation by indigenous peoples in decision making throughout project planning, implementation, and evaluation"

A common theme shared by these directives is the right to self-determination, as set out in Article 3 of the *U.N. Draft Declaration on the Rights of Indigenous Peoples*.

The case studies introduced in this paper provide some concrete reference points for implementing Article 8(j) of the CBD in a manner consistent with the wider body of international law and policy. At all levels of dialogue, the question of what constitutes lawful process is being raised by indigenous peoples. Another issue of grave concern to indigenous peoples is the extent to which capacity building is built into policy development, partnership building and negotiation processes in order to ensure their meaningful involvement.

It is not enough to say that a dialogue process exists and therefore indigenous peoples and other local communities must plug into this process. The fit of the process in relation to the task must first be examined. If the process offers no realistic hope of achieving sustainability in tourism, especially cultural sustainability as highlighted by the *Berlin Declaration on Sustainable Tourism*, then its procedural or structural imbalances and shortcomings must be proactively addressed. Otherwise the terms of participation for indigenous peoples amount to duress, and the process lacks credibility.

Similarly, without appropriate provisions for capacity building, indigenous and local participation in established processes is thwarted. A capacity imbalance at the dialogue table means that indigenous peoples and other local communities can neither protect their traditional resource rights nor effectively share their expertise on sustainable use. Nor can they ensure the equitable sharing of the benefits derived from their knowledge and innovation systems.

Given the rate at which tourism is eroding biological and cultural diversity in popular destinations, and the destructive impacts of most tourism on indigenous cultures and homelands, there is an urgent need for Parties to the CBD to rethink how they will integrate tourism into their national action plans. Achieving sustainable tourism is contingent on Parties working together with indigenous peoples and other local communities in good faith, and their willingness to build and promote new relationships at the ecosystem level for the purpose of biodiversity conservation.

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COMMUNITY BASED ECOTOURISM OF QUICHUAS IN THE UPPER NAPO REGION (ECUADORIAN AMAZON) AS A CONTRIBUTION TO MAINTAINING BIOCULTURAL DIVERSITY: THE CASE OF RICANCIE

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1. Introduction

This paper examines the role of community based ecotourism (CBE) as a tool for maintaining biodiversity, using the case of RICANCIE, a network of ten Quichua communities inhabiting the Upper Napo Region of Amazonian Ecuador. In order to appreciate the dynamics of both organizational and cultural flavorings of a CBE project, it is invaluable to have a fundamental understanding of the history of the community and its influence on decision making patterns. Second, in order to ultimately evaluate the impact of CBE projects for maintaining biodiversity, one should be able to assess biodiversity within each ecosystem, or at least identify changes in the proportion of land types used for different activities before and after inception of a CBE project. To this end we provide a brief overview of the ecological context of the project and its recent history. The main body of the paper addresses specific issues pertaining to the development and organizational structure of RICANCIE. It concludes with a summary of the strengths and weaknesses shown by the organization in fulfilling the prerequisites for maintaining biocultural diversity.

Ecuador is considered to be one of the earths richest countries with respect to species density. The variety of ecosystems present and the high level of species diversity are explained by the countrys unique geomorphological structure including the Andean

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Mountains, the Coastal Region, the Amazon Basin *(Oriente),* and the Galapagos Archipelago. Each of these represent distinct macro-regions within a relatively small overall surface area. Specifically in the Oriente, one prevailing factor which contributed to the conservation of its rich biodiversity was the cohabitation of diverse indigenous nationalities[27] each organized in small-scale dispersed communities in non-deliminated territories.

External influence on the Quichua (and Shuar in the southern Oriente) started late in the 19th century and was fueled by Catholic missionary orders. A system of paternalism was created with schools being the main instrument to impart the values of white civilization, including the encouragement to form nucleated settlements, the adoption of sedentary agricultural practices and integration into capitalist structures. From the late 1960s onwards, the disruptive influences of the petroleum industry further changed their life-style and has lead to irreversible changes in the natural environment of the Quichua. Some of the negative impacts of the commercialization and systematic extraction of oil include ecological degradation due to oil spills and the dumping of toxic formation water, increased population pressure as settlers followed newly constructed roads, and a national settlement policy favoring land clearing of large areas of primary forest. For Quichua populations, these external influences meant firstly that they were displaced from some of the best and most accessible agricultural soils. Second, it reduced the territory available for hunting and gathering. Finally, the example of the settlers and government policy encouraged the indigenous people to increase their reliance on agriculture and lumber extraction and to covet land as private property rather than a communal resource.[28]

In the 1990s, community-based ecotourism emerged as one of the key strategies of indigenous peoples in Ecuadorian Amazon to regain their self reliance and to counter balance many of the tumultous changes their societies endured. If properly managed, CBE can be *one* ingredient in an environmentally and economically sustainable rural development strategy. It can also be the driving force to recapture traditional knowledge

[27] Of the indigenous nationalities which distinguish themselves by language, the lowland Quichua are the largest nationality of the Ecuadorian Amazon with an estimated 90,000 people populating predominantly the north- western part of the Oriente (some settlements extend to the easternmost part of Ecuador boardering with Peru). Other nationalities are the Shuar populating the southern provinces of the Oriente, as well as the Achuar, Huaorani, Cofan, Siona, Siecoya, Zaparo and Shiwiar occupying more remote areas towards the east.

and articulate cultural values. In this endeavor, RICANCIE[29], the Network of Indigenous Communities of the Upper Napo for Intercultural Exchange and Ecotourism, was a pioneer. Of the currently ca. 35 CBE projects in Ecuadors Oriente, almost ¾ are managed by Quichua communities of which another 40% fall into the network of RICANCIE.[30]

2. RICANCIE: An intrinsic answer to external pressures

2.1 Description

RICANCIE is a network with currently about 250 indigenous Quichua families totalling approximately 2,700 individuals. These families live in ten communities in the Upper Napo region of Amazonian Ecuador.[31] Following the example of the community of Capirona, RICANCIEs pioneer, other communities began to engage in ecotouristic activities in the 1990s. The activities were developed and are managed according to a communitary philosophy, with the support of all or the majority of families. Since its foundation in 1993, the administrative headquarters of RICANCIE are located in Tena, the capital of the province of Napo. The main office can be reached from Quito via a five hour bus ride or a four hour car ride, on a combination of dirt and asphalt roads.

Each of the communities in the network disposes of a well-established tourism infrastructure. The tourism area is usually built outside the community center in order to reduce the negative impacts of tourist activities. Each of the areas has traditionally-designed thatched roof guest cabins or lodges *(cabañas)* equipped with beds, sheets and mosquito nets, with a capacity of between ten and 25 beds. Some of the cabañas are currently being equipped with private bathrooms. In addition, each of the tourism areas has a kitchen-dining cabaña and some have a social area, small bar or community sports area (e.g. for playing volleyball). Trails, observatories *(miradores)*, and no-fringe lodges inside the jungle for larger excursions with overnight stays complement the infrastructure.

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[28] Wesche, R. and A. Drumm (1998), *Defending our Rainforest. A Guide to Community-based Ecotourism in the Ecuadorian Amazon,* Accion Amazonia, p. 45.
[29] The full name being: Red Indígena de Comunidades del Alto Napo para la Convivencia Intercultural y Ecoturismo.
[30] See Wesche, R. and A. Drumm (1998), *Defending our Rainforest. A Guide to Community-based Ecotourism in the Ecuadorian Amazon,* Accion Amazonia.
[31] After fluctuating membership during the early stage of the network, reaching almost a level of thirty communities, RICANCIE consolidated to its current ten communities, namely Capirona, Cuya Loma, Chuva Urcu, Huasila Talag, Galeras, Macha Cuyacu, Rio Blanco, Runa Huasi, Salazar Aitaca and Union Venezia.

The total territory of the ten participating communities spans about 8,000 hectares in a non-contiguous manner around Tena, with community territory size varying significantly from ca. 100 to 2,500 hectares. The communities are located along the Andean foothills at an altitudinal range between 300m and 1,000m comprising two different ecological zones, the *very humid tropical lowland forest* (300m-600m) and the *pre-mountainous rainforest* (600m-1,000m). Average annual temperatures vary between 18º to 26ºC, annual precipitation levels vary between 3,000mm and 8,000mm. Accessibility of the communities from Tena is between one and four hours and usually involves a combination of terrestrial and fluvial transportation and hikes.

The ecosystem is characterized by large patches of secondary forest and cleared land for agricultural purposes. In the more remote communities, however, primary forest prevails, generally due to less plots owned by settlers. There is, however, anecdotal evidence that richness of species (esp. birds) is significantly higher in closed reserves where hunting is prohibited like in the adjacent Jatun Sacha Biological Station. So far, intensive resource exploitation within the area was restricted to land clearing to make it arable, or for use in logging and marble extraction. In addition, there are signs that oil exploration will be carried out in the vicinity in the near future (e.g. pipeline construction from Puerto Napo to Baeza, and increased observations of oil workers doing surveying work). Even the planned creation of a Biosphere Reserve with support of the Ecuadorian Ministry of Environment and the German GTZ of which RICANCIE communities would form the southern part, will not be able to avoid further oil exploitation in the area.[32]

2.2 Antecedents: Why tourism?

A period of relative calm for many Quichua communities in the Upper Napo region came to an end in the 1980s given increased contact with new settlers accompanying the intrusion of the petroleum industry and tourists alike. RICANCIE was founded in 1993[33] with the aim

[32] Gisder, S. (1999), *EstructuraciÌn e Impactos del Turismo en la Futúra Area de la Reserva de Biosfera Gran Sumaco Napo Galeras. Informe para la propuesta de Reservas de Biosfera a presentar a la UNESCO,* p. 27-29.

[33] The development of RICANCIE has been documented in diverse research papers and articles as well as guide books. For more information see e.g.: Colvin, J.G. (1994), *Capirona: A Model of Indigenous Ecotourism,* in Journal of Sustainable Tourism 2 (3), pp. 174-177; Wesche, R. (1993), *Ecotourism and Indigenous Peoples in the Resource Frontier of the Ecuadorian Amazon,* in Yearbook, Conference of Latin Americanist Geographers 19, pp. 35-45;

to improve living conditions via ecotourism including: securing education for their children, providing basic sanitation and health services, and protecting their territories from the ever encroaching petroleum industry. By then tourists had begun arriving yet were being led by non-Quichuan tour guides, who only used the communities as a backdrop to further their interests and left nothing behind except trash and raw sentiments. These intrusions by tourists and external guides made organized work more difficult and had a negative impact on community life. Since some families had already provided accommodations and had worked as local guides for low payment, internal conflicts were the consequence. Several assemblies were held to discuss the issue of tourism and whether the communities should receive or reject tourists. Eventually, the decision was made to receive them. But why?

The communities had tried to generate revenues through the communal cultivation and sale of maize to cover community expenditures. Also, attempts were made to cultivate coffee and cocoa which were produced in market-acceptable forms. However it was not possible to generate profits from these activities because the trade intermediaries controlled prices and the communities were always forced to expand their cultivation practices to keep from falling behind. This lead to further land clearing of primary forests to extend the plantations, a practice which they could not accept since it was in conflict with their cultural values. With a small start-up grant from the regional indigenous federation (FOIN), the community members of Capirona were the first to start to build tourism facilities. Other communities soon followed.

Having decided that they would accept tourism, given the already impending threat of massive external dependency of the participating communities, they met to formulate limitations for where, when and how to receive the tourists. Instruments and structures created to facilitate this process are outlined below.

Wesche, R. (1995), *The Ecotourists Guide to the Ecuadorian Amazon: Napo Province;* Drumm, A. (1998), *New Approaches to Community-based Ecotourism Management. Learning from Ecuador,* in Ecotourism. A Guide for

2.3 Organizational structure and participatory distribution of work and benefits

RICANCIE developed out of FOIN (Federation of Indigenous Organizations of Napo), the Quichua´s regional representative body. FOIN operated in part by securing funds for redistribution among its member communities for specific social projects. The strategy of RICANCIE was fundamentally different from the start: namely to engage in a productive project to lessen the dependency on benevolent donors. Its goals, however, have remained social in nature. Through ecotourism, income was to be generated in order to build and maintain schools, improve medical services, help gifted students with stipends, create an emergency fund for individuals, and to allow for ecologically sustainable use of their land.

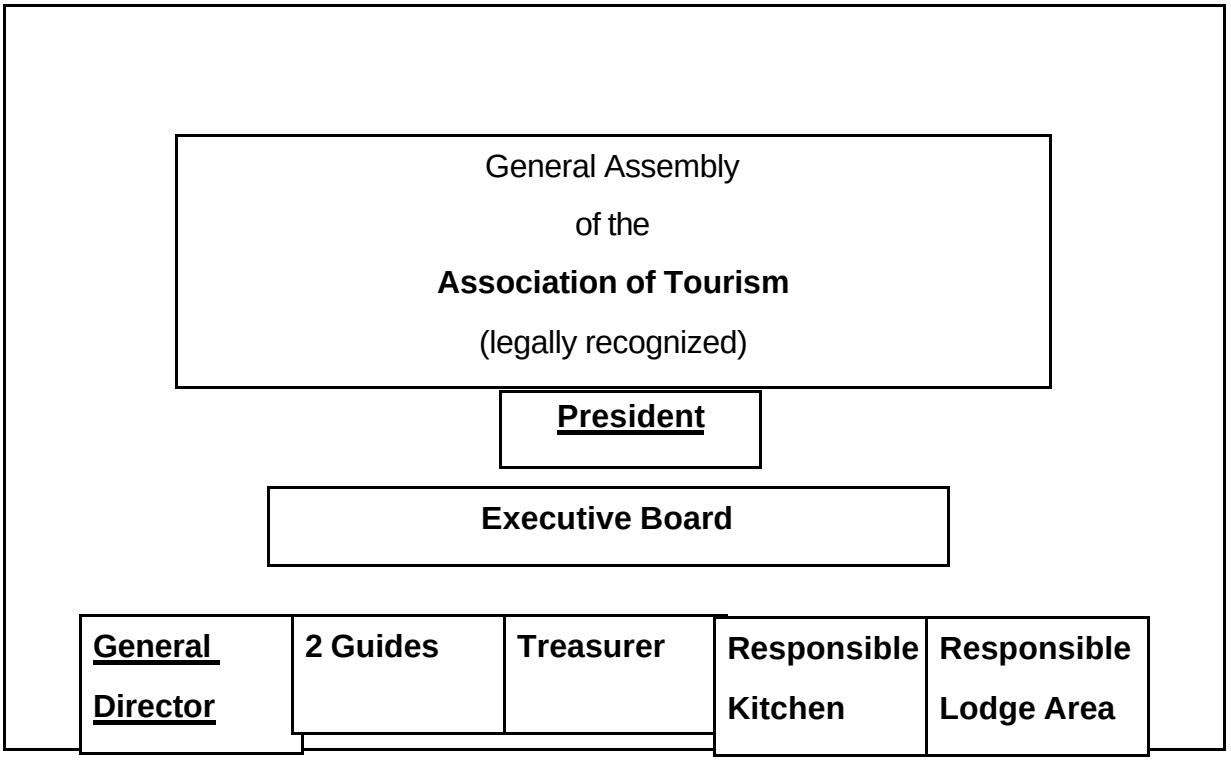
The infrastructure necessary for the tourist activities was constructed during communal work sessions, called *mingas.* This is a traditional form of work without clear hierarchical or responsibility structures. Because this work is financially unpaid, it was possible to build the first round of infrastructure with almost no financial aid from outside. Construction material was provided by the community itself, only mattresses, water and sanitary supplies were purchased. In the second round of infrastructure building and upgrading, which was carried out throughout 1999, financial aid from two NGOs was provided, namely, the Ecuadorian Fundacion Esquel (which also supported with financing capacity-building workshops for management, cooking, and guides) and the Spanish Ayuda en Accion.

As communities began providing tourist services, it was considered necessary to change from a minga work philosophy to a more strictly organized work structure. As outlined in Graph 1, each of the communities is organized in such a way that a president presides over the General Assembly of the Tourism Association, a legally recognized organization comprising all community members taking part in the tourism program. Generally, between 70% and 100% of families are represented in the Tourism Association (both wife and husband are members). The general director, together with the president, represents the community at RICANCIE, and also manages and coordinates tourism-related activities. Two guides play a key role in interpreting the Quichua culture for visitors, and are responsible for their safety and for information. These guides passed through an extensive

Planners and Managers. Vol. 2, The Ecotourism Society. Wesche, R. and A. Drumm (1998), *Defending our Rainforest.*

education period and are licensed by the Ecuadorian Tourism Corporation (CETUR).[34] Often, the guides are *shamans* or other knowledgeable persons.

Graph 1: Typical Organizational Structure of a Community affiliated with RICANCIE



In addition to the guides, it proved to be necessary to have a treasurer, a person in charge of the kitchen, and someone responsible for maintenance of the lodge area. When tourist services are being offered, families take turns on a rotational basis to carry out the necessary preparations.

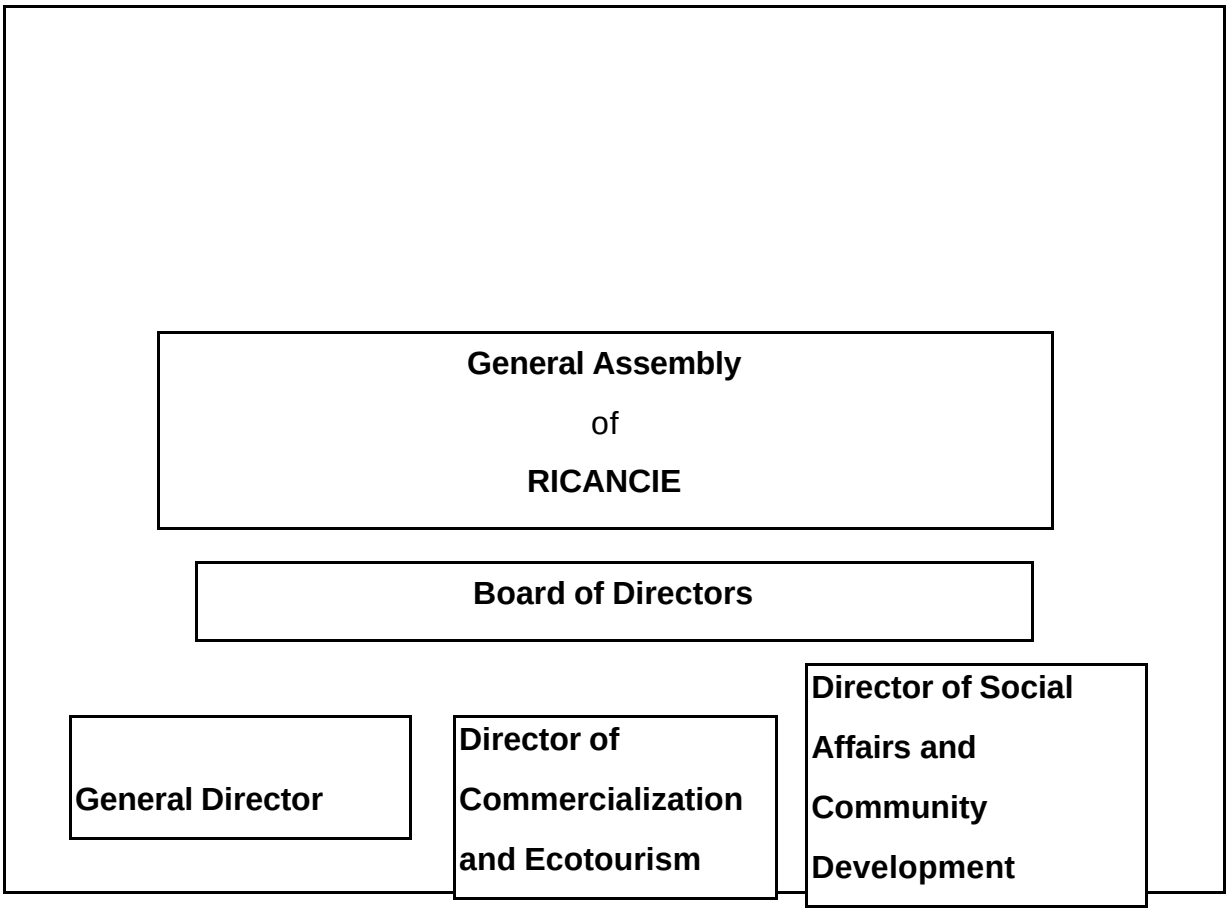
Most of the communities adopted this system of clear responsibilities even though it did not correspond to their traditional way of managing communal work. In some communities, all of the positions, except for that of the guides, are subject to periodic rotation (e.g. every half year). This compromise, even though it respects traditional work organization, bears

A Guide to Community-based Ecotourism in the Ecuadorian Amazon, Accion Amazonia.

[34] The process of officially recognizing RICANCIEs tour guides was difficult and was characterized by the unwillingness of CETUR to award licences. The reason: a lack of tertiary education among local guides and inflexibility in taking into consideration the traditional knowledge they had obtained through their fathers and

the danger of inefficient work, lack of responsibility as well as low motivation. On the other hand, it serves as a control mechanism and thus prevents individuals from assuming a lot of power.

Graph 2: Organizational Structure of RICANCIE



The network of RICANCIE was legally recognized in 1997. Its organizational structure evolved over the years and now shows a clear distribution of responsibilities. The goals of the organization are twofold, with social and productive components. The s*ocial goals* include a) coordination of training for guides, presidents, directors, treasurers and kitchen personnel financed through external funds; and b) coordination of community development. The *productive goals* include a) coordination of infrastructure building (the last round of which was financed by external funds); and b) marketing of tourism (through contacts with

grandfathers. CETUR even banned RICANCIE from their information system which it maintains in most of the country´s towns.

travel agencies, direct tourists, NGOs and alternative travel networks including universities and a network of friends and volunteers).

Income from tourism is distributed in the following manner: Of the price the tourist pays (net of commission where travel agencies are used) a percentage remains with RICANCIEs central office (currently 25%). The remainder is then used to pay community members involved in offering tourist services which are calculated at a fixed rate (e.g. lodging, breakfasts, lunches and dinners, cultural presentation, guides, rowing boats) and other contracted services (e.g. entrance fees into parks, ground transportation, motor canoe transportation). The remainder then flows into the community fund. These funds are used for community objectives as outlined above.

2.4 Revaluing Quichua culture through CBE

The relationship between cultural survival and the maintenance of biodiversity is fragile and dependent on the need for indigenous people to control and, where possible, market their knowledge as the level of external threats to both systems (i.e. culture and biodiversity) increases. In this light, intellectual property is one approach to encourage the creation and sharing of intellectual goods[35] which could benefit both specific indigenous groups and lead to the preservation of large tracts of land. When considering options for biodiversity maintenance, the topic of discussion therefore needs to focus on the role of indigenous know-how and knowledge in contributing to addressing this challenge. While tourists benefit from receiving valuable local knowledge (e.g. medicinal plant use), clearly they also transmit cultural values which are vastly different from those they encounter.

In response to social problems that arose with the influx of tourists, problems which weakened the social fabric of the communities and lead to internal disputes, RICANCIE formulated guidelines for appropriate interactions between tourists and members of their communities. These are summarized below as Local Norms and Local Customs (Table 1)[36] and Knowledge Standards Required of Guides (Table 2).

[35] See Brush, S.B. (1996), *Whose Knowledge, Whose Genes, Whose Rights?,* in Valuing Local Knowledge: Indigenous People and Intellectual Property Rights (S.B. Brush & D. Stabinsky, eds.), 1-21.

[36] These guidelines are presented in expanded form as the Capirona Guidelines by A. Drumm (1998), *New Approaches to Community-based Ecotourism Management. Learning from Ecuador*, in Ecotourism. A Guide for Planners and Managers. Vol. 2, p. 210.

An important role in the renaissance of cultural knowledge is vested in the community tour guides. The guidelines formulated by RICANCIE led to their involvement in the preservation and rekindling of customs and traditional knowledge. The guides are considered to be key figures in the tourism constellation, not least because they are in possession of traditional knowledge but also because they contributed to a revaluation of the knowledge of the community elders who anew became central figures in their communities.

Table 1: Rules for the Tourists

Local Norms:

Please,

- Dont throw away plastic, glass or other non-organic waste. If you brought it along, take it back with you again.
- It is not allowed to donate, exchange or sell used clothes to the community members.
- It is not allowed to take a bath naked in the river.
- Nature offers diverse landscapes and other attractions to be photographed. If you would like to take pictures of people of the community you are welcome to do so upon proper request.
- If necessary you may solicit curative treatment in the communities but NOT the consumption of *Aya Huasca* (widely used socio-active plant) or other natural hallucinogens.

Local Customs:

- Become accustomed to giving gentle handshakes as customary of Quichua culture.
- Avoid physical contact with people you do not know well.
- Avoid public demonstration of overt affection and excessive tenderness with your partner.

Table 2: Suggestions for Strengthening Cultural and Ecological Values, Customs and Traditional Knowledge

Basic Knowledge which the Guide has to have regarding his Community:

- The guide should have sufficient information about life and history of the community / founders / founding date / meaning of the name / number of families / population / who are the leaders / extension of the community territory / number of children in school / ecological, social, cultural, health-related, educational and economic problems faced by the community as well as solucions drafted by the community as an organized indigenous group.
- Geographic location, altitude of the community, annunal seasons, average temperature, rainfall and other.
- The guide shall inform himself in conversation and interrogation of group elders, *yachas* (the communitys wise and leading authority), and other knowledgeable masters of the community concerning aspects of natural medicine, hunting, work and handcraft practices and knowledge of beliefs, myths and legends.
- The guide has to have basic knowledge of rescue and first aid measures.
- He has to know the basic history, including wars and current lifestyles of distinct nationalities and organisations existing in Amazonia and in Ecuador.

3. Conclusions

When evaluating to what extent a CBE project actually contributes to maintaining biodiversity, we are limited by the lack of a standardized set of indicators and means of verification. In the case of RICANCIE we can provide some general conclusions about areas where we suspect that CBE is having a positive impact and also identify areas which clearly could use improvement. This account is summarized below, separately for each aspect.

3.1 RICANCIE´s positive record in fulfilling the prerequisites for maintaining diversity

Participatory approach during planning, construction, and tourist activities.
Culturally appropriate time frames and work structures need to be respected to assure the long-term motivation of a large segment of the population. In this case, the participatory approach required that all families within each community repeatedly meet for at least several hours to discuss the myriad of issues at hand. Furthermore, the leaders between communities subsequently met to exchange the information and ideas generated within their respective communituies. Before any decision was accepted, the leaders again had to meet with their communities. The participatory approach is very time-consuming initially, but is the only solution to maintain a culturally authentic and viable outcome in these Quichua communities.

Creation of specific guidelines for tourist-community interactions.
One of the results of the participatory approach was the articulation of limits set for tourist interactions with the communities, to minimize the disruptive impacts of foreign cultures on their traditional lifestyle. Certain principals were adhered to, which were suggested after the first years of experience. For example, tourist facilities are constructed outside of the community center. Tourists may enter the community for specific activities, but again need to adhere to a code of conduct.

Sustainable use of natural resources through rediscovery of traditions and cultural values.
It is recognized that ownership of tourism facilities has a positive influence on conservation.[37] In the case of RICANCIE, the community opposed land clearing proposals and opted for land conservation to remain attractive for tourists. Simultaneously, they continue to use the lands according to their cultural traditions (e.g. 80% of all forest plants have some practical use in Quichua culture[38]). The contribution to maintenance of cultural biodiversity is more easliy recognized in this case, yet we assume that the project

[37] See Middleton, V.T.C. (1998), *Sustainable Tourism. A Marketing Perspective*, p. 81-117.
[38] Personal communication with Nixon Revello, Jatun Sacha Botanical Garden.

contributed to preserving biodiversity as well since secondary and uncut primary forest are more species rich than are cultivated lands.

Institutional development.
RICANCIE has been engaged in ecotourism for ten years. It originally developed from FOIN, and thus already had experience with official organizational structures. Since their inception, they had to address the challenges of bringing together the interests of many different communities and managing the affairs of a central office. Problems which were encountered were addressed by modifying existing structures and adapting to external needs (e.g. reduction of member communities, creating areas of competence).

Legalization.
To guarantee the long-term, viability of a project, it needs to be embedded in the countrys legal system. After years of challenges and hurdles, RICANCIE was granted legal status in 1997 (i.e. it may legally offer tourist services, determine and employ its own licensed tour guides).

3.2 These areas still need improvement

Ecological conscience-building and training of community members.
Because many CBE projects are initiated, as was RICANCIE, in response to the immediate need to generate income, long-scale ecological planning and management issues were largely neglected. For most Quichua communities, a pattern of sedentary living combined with large numbers of visiting tourists represent hitherto unencountered challenges for waste management. Certain ecologically sustainable practices (e.g. concerning waste disposal, sewage) should be applied to maintain health standards and protect local resources. Within RICANCIE, there are examples in which non-ecologically sound development strategies (e.g. flush toilets which empty directly into the nearby river) were financed by NGOs.

Environmental impact analysis and monitoring.

In part spurred on by international organizations, much of the construction is over-sized and was carried out without prior environmental impact analysis nor feasibility study. The result is that RICANCIE generally suffers from low occupancy rates (currently <5%). This over-sizing required an unnecessary amount of raw materials for construction and maintenance. Furthermore, the combined impact of construction, trails, and tourist numbers on the surroundings has not been monitored.

Market analysis, marketing strategy, and capacity building for self-commercialization in order to secure income and autonomy.

The low occupancy rates suffered by RICANCIE communities are due to a lack of market-oriented planning. This phenomenon is a regional problem[39] which generates price pressure and thus reduces the benefits incurred from tourism. Price policy also suffers from the fact that generally depreciation costs for infrastructure are not considered in price calculations. This is partly explained by external financial aid, which excluded community financial planning, and also by the minga construction system. Another marketing issue concerns tourist allocation. For example in 1999, two communities in RICANCIE received about 67% of tourism income, whereas the remaining eight communities had to share 33% of tourism income. Finally, in the case of RICANCIE, much interest is currently being shown by outside tour agencies to exclusively control the marketing of RICANCIE under conditions unfavorable to the interests of the communities.

Development plan including diversification of income sources.

In the past, too much emphasis was placed on ecotourism as the cure-all remedy for generating revenue. Given low tourist numbers, as a percentage of the beds available, this high expectancy resulted in sunken motivation among certain communities. Since ecotourism is sensitive to prevailing socio-economic conditions (e.g. natural disasters, political and economic stability), communities need to be aware of these fluctuations and create alternative sources of income.

Lack of distinction between the social and productive components of the enterprise.

[39] See Gisder, S. (1999), *EstructuraciÌn e Impactos del Turismo en la Futúra Area de la Reserva de Biosfera Gran Sumaco Napo Galeras. Informe para la propuesta de Reservas de Biosfera a presentar a la UNESCO,* p. 21.

For viability purposes, but also to prevent the abuse of funds, it is important to clearly distinguish the social (e.g. externally financed community development activities) from the productive components. A clear delineation between these two activity areas needs to be made for the central office and also within each community.

ANNEX 1: WORKSHOP PROGRAMME

International Expert Workshop:

Case Studies on Sustainable Tourism and Biological Diversity

Rapporteur: LOTHAR GÜNDLING

THURSDAY, NOV. 11, 1999

Arrival of the participants on the Isle of Vilm.

18.30 Dinner

FRIDAY, NOV. 12, 1999

08.00 Breakfast

09.00 H. D. KNAPP, Head of the branch office Vilm of the Federal Agency for Nature Conservation: *Welcome and opening of the workshop*

L. Gündling: *Concept and background of the workshop*

09.30 **Session 1: Key Issues**

TREVOR SANDWITH: *Nature-based tourism: A key strategy for sustaining biodiversity conservation in KwaZulu-Natal, South Africa.*

PETRA STEPHAN: *Sustainable use of biodiversity - What we can learn from ecotourism.*

BEATRIZ GRATEROL: *Environmental Impact Assessments (EIA) as a tool to protect the biodiversity of wildlife.*

RANDAL ARCE: *A brief history of Costa Rican tourism and its relation to its biodiversity*

12.00 Lunch

13.30 Guided tour to the nature reserve of the Isle of Vilm

15.30 Coffee/tea break

16.00 **Session 2: Tourism and Protected Areas**

PIRET KIRISTAYA: *Legislative aspects for regulating tourism in protected areas in Estonia.*

ROBYN BUSHELL: *Global issues for protected areas and nature-based tourism: case studies of partnerships in Australia addressing some of theses issues.*

GÜNTER MERZ: *Tourism as a contribution to the sustainable development of the Dzangha-Sangha region in the Central African Republic.*

NATALIA MORALEVA: *Ecotourism in Russian nature reserves: possiblilities, problems and perspectives*

BORIS SHEFTEL: *The educational and scientific tourism within Russian nature protected areas.*

18.30 Reception at the invitation of the Federal Agency for Nature Conservation, Germany

20.30 Adventure excursion (optional)

SATURDAY, NOV. 13, 1999

08.00 Breakfast

09.00 **Session 3: Stakeholder Participation**

ALISON JOHNSTON: *Tourism and Biocultural Diversity: Designing policies, programs and activities consistent with Article 8 (j) of the U.N.Convention on Biological Diversity.*

EMILIO GREFA/NORBERT HOHL: *Community based ecotourism of Quichuas in the upper Napo region (Ecuadorian Amazon) as a contribution to maintaining biocultural diversity: The case of RICANCIE.*

AURELIO RAMOS: *The Biotrade Initiative in Colobmia.*

Discussions in working groups

12.00 Lunch

14.00 Discussions in working groups (cont´d.)

15.30 Coffee/tea break

17.00 Closing session

18.00 Dinner

20.00 Cultural programme (optional)

SUNDAY, NOV. 14, 1999

08.00 Breakfast

Departure of the participants from the Isle of Vilm.

ANNEX 2: LIST OF PARTICIPANTS

Workshop "Sustainable Tourism and Biological Diversity"

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ANNEX 3: Workshop Concept (as of September 27, 1999)

INTERNATIONAL WORKSHOP

SUSTAINABLE USE OF BIODIVERSITY -
THE EXAMPLE OF TOURISM
Case Studies on Good Practices in Sustainable Tourism and Biodiversity

Date of Workshop:	11 - 14 November 1999
Venue:	Federal Agency for Nature Conservation / International Academy for Nature Conservation, Isle of Vilm, Germany
Organizer of Workshop:	Federal Agency for Nature Conservation / International Academy for Nature Conservation, Isle of Vilm, Germany

Workshop background:

Sustainable tourism has become a major theme in the debate about conservation and sustainable use of biodiversity. It is being recognized that tourism, if properly managed, can make a valuable contribution to biodiversity conservation and use. At the same time tourism is an expanding sector of the world economy which depends to a great extent on a clean environment and a beautiful nature.

The mutual dependencies of both biodiversity conservation and use on the one hand and tourism on the other has been recognized for example at the International Conference of Ministers held in Berlin 1997 which adopted the "**Berlin Declaration**". The "Berlin Declaration" spelled out a set of principles which can help harmonize the interests of tourism and the requirements of conservation and sustainable use of biodiversity.

The **4th Conference of the Parties of the Convention on Biological Diversity (CBD)** held in Bratislava in 1998 discussed the issues of biodiversity and sustainable tourism. It has been decided that the theme of biodiversity and sustainable tourism be taken up in the context of the Convention. The **Commission on Sustainable Development (CSD)** at its 1999 session recommended that the CBD makes efforts to contribute to global guidelines on sustainable tourism dealing particularly with the aspects of vulnerable areas. The CBD **Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA)** devoted a considerable part of its 4th meeting in 1999 in Montreal to the problems of biodiversity and sustainable tourism and adopted a comprehensive recommendation entitled "Development of approaches and practices for sustainable use of biological diversity, including tourism" (UNEP / CBD / SBSTTA / 4 / L.4, 24 June 1999). The 5th session of SBSTTA will take up the discussion and deal with sustainable tourism in the broader context of sustainable use of biodiversity.

Workshop objectives:

The main objectives of the Workshop are as follows:

- Clarification of how, and under which conditions, tourism can make a contribution to sustainable use of biodiversity;
- Presentation of case studies from various parts of the world dealing with major ecosystems or eco-regions or species, as appropriate, and illustrating good practices of sustainable tourism and biodiversity;
- Preparation of an information document as an input for the deliberation of the 5th meeting of SBSTTA scheduled to take place in January / February 2000.

Workshop programme:

At the Workshop case studies from countries in various parts of the world will be presented; participating countries will include developing and developed countries as well as countries in transition to market economy.

Case studies will deal with major ecosystems or eco-regions, such as mountains, coastal and marine areas, islands, forests, wetlands, polar regions or others; they may also deal with particular species.
Each case study will deal with one or several criteria / indicators of sustainable tourism; such criteria / indicators can be found in the list contained in Annex 1 below.
If possible, the Workshop will adopt conclusions on tourism as an example of sustainable use of biodiversity in general.
A detailed programme of the Workshop will be circulated after replies to the invitation and the call for presentations have been received.

Workshop organization and results:

The Workshop will be prepared and organized by, and held at, the Federal Agency for Nature Conservation / International Academy for Nature Conservation, Isle of Vilm, Germany, phone +49 38301 86131 or 86130; fax +49 38301 86150, e-mail: bfn.ina.vilm@T-online.de. Technical guidance and assistance will also be provided by the office of Dr. Lothar Gündling, Sofienstrasse 23, 69115 Heidelberg, phone +49 6221 162847, fax +49 6221 162850, email: LGuendling@T-online.de.
Participants of the Workshop will be invited to prepare written contributions. Contributions will be presented at the Workshop as the time schedule allows. They will in any case be included in the Workshop proceedings, immediately prepared after the end of the Workshop.
Participants will be provided with "the Guidelines for Workshop Presentations", included in Annex 1 below.
Immediately following the Workshop, Proceedings will be prepared and forwarded to the CBD Secretariat for the deliberations at the 5th meeting of SBSTTA.

Annex: Guidelines for Workshop Presentations

All participants of the Workshop are invited to prepare written contributions of 10 pages maximum. These contributions will be presented at the Workshop as the time schedule allows. Contributions will in any case be included in the Workshop Proceedings, prepared immediately after the end of the Workshop. The Proceedings will be submitted to the 5th meeting of SBSTTA, scheduled to be held in January / February 2000 in Montreal.

Participants may wish to choose a case study which illustrates **one or several criteria / indicators** of sustainable tourism as a form of sustainable use of biodiversity. Such criteria / indicators are, inter alia:

- Tourism activities are environmentally, economically, socially and culturally sustainable.
- Tourism contributes to conservation and sustainable use of biodiversity either by serving as incentive for conservation and sustainable use or by generating financial means allocated to conservation and sustainable use activities.
- Tourism respects the integrity and carrying capacity of ecosystems and habitats; due attention is paid to the characteristics of particular ecosystems, such as forests, grasslands, wetlands, mountains, etc.; additional burdens by tourism activities are avoided where the carrying capacity has been exhausted; restoration measures are taken where the environment has already been degraded.
- An inventory of tourism activities has been (is being) made; monitoring and integrated planning of tourism activities has been carried out (is being carried out).
- Tourism infrastructure planning is subject to a comprehensive and meaningful environmental impact assessment (EIA).
- Tourism activities rely on environmentally friendly technologies, such as e.g. no-waste or low-waste technologies or public transport.
- Tourism mobilizes the responsibility of all stakeholders involved, such as business, governments at all levels, local communities, NGOs; it uses economic instruments and incentives to stimulate the responsibility; financial means are generated and allocated to conservation and sustainable use.
- Planning and carrying out of tourism allows for the effective participation of local communities; tourism benefits local communities (local economy, local labourforce).

- Tourism respects the values, lifestyles, cultures, and interests of indigenous and traditional communities; where these communities may be effected by tourism activities they are effectively involved in the planning and carrying out of such activities.
- Tourism in protected areas and other sensitive of vulnerable areas are managed and controlled; restrictions are established and enforced where necessary to attain the objectives of protection; special legal regimes are provided for protected areas, sensitive or vulnerable areas; numbers of tourists are limited where necessary; tourism may be prohibited in highly vulnerable or degraded areas which need to recover.
- Tourism in coastal, marine and island areas rely on integrated coastal zone management (ICZM) techniques; tourism respects the requirements of conservation and sustainable use in such areas.
- Rules and regulations for sport and outdoor activities, hunting tourism and trade in souvenirs are effectively enforced.
- Sustainability of tourism is part of the formal education and training of tourism professionals; the general public is being made aware of the requirements of sustainable tourism, conservation and sustainable use of biodiversity.

Case studies may deal with tourism activities which already constitute "good practices" in the sense that those activities demonstrate "that it can work". However, case studies may also point at problematic aspects indicating what still needs to be done in order to achieve sustainable tourism practices.

Where case studies deal with ecologically sensitive areas the following aspects may be considered:

- What are the characteristics of the area in question?
- What are the conservation and the development objectives for the are in question?
- Which conflicts arise between conservation and development objectives on the one hand and tourism and other economic uses on the other?
- Which measures have been taken to address such conflicts? Who initiated the measures? Who is responsible for carrying out the measures? Who are the stakeholders? What is the source of funding? Who is enforcing?

- What were (are) the results of such measures? How long was the time period to resolve the conflicts? What were the difficulties?
- What are the perspectives for a sustainable tourism in the area in question?

In considering these aspects both, the technical side of conservation and sustainable use and the socio-economic and political dimensions of a given case may be discussed.

The case study should be chosen and presented in a way that it allows conclusions for a sustainable use of biodiversity in general. If possible, the case study should contribute to an answer to the question: *What are essential prerequisites for sustainable use of biodiversity?*