

<Final Draft of 09.03.2002>

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Jordi Soler & Richard Tapper (Eds.)**

**BIODIVERSITY AND TOURISM
IN THE FRAMEWORK OF THE CONVENTION ON
BIOLOGICAL DIVERSITY:
THE CASE OF THE TAYRONA NATIONAL PARK,
COLOMBIA**



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**THE CASE OF THE TAYRONA NATIONAL PARK
MAGDALENA REGION, COLOMBIA**

Report of the Workshop at Cañaveral, Tayrona National Park, 25 – 30 November 2001

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This volume is the report of the international workshop at Cañaveral, Tayrona National Park, which was organised between 25 – 30 November 2001 in the framework of the bilateral cooperation between the Colombian Special Administrative Unit for the National Parks System and the German Federal Agency for Nature Conservation.

Translation from Spanish: Marielos Molina
English Language Editing: Anna Page

Photo on Front Cover: Tayrona National Park (Courtesy of UAESPNN)

BfN-Skripten are not available in bookstores.

An electronic version of this volume is available on the internet at www.bfn.de

Publisher: Bundesamt für Naturschutz (BfN)/ Federal Agency for Nature Conservation
Konstantinstr. 110
Tel: +49-228-8491-0
Fax: +49-228-8491-200
internet: <http://www.bfn.de>

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Printed on recycled paper

Bonn – Bad Godesberg 2002

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Abbreviations

APRESTAYRONA	Tayrona Service Supplying Association
ASOPLAN	Playa Muerto Fishing Association
CBD	Convention on Biological Diversity
CORPAMAG	Regional Autonomous Corporation of Magdalena
DAS	Security Administrative Department
DIMAR	Maritime and Harbour Office
DNP	National Planning Department
ETURSA	Santa Marta Tourism Company
FONAM	National Environment Fund
FPSNSM	Foundation for the Sierra Nevada of Santa Marta
GIS	Geographic Information System
GTZ	German Technical Cooperation
IAVH	Alexander Von Humboldt Institute
IDEAM	Institute of Environmental Studies
IGAG	Agustin Codazzi Geographic Institute
INPA	National Fishing Institute
INVEMAR	Institute of Marine and Coastal Research
LAC	Limit of Acceptable Change
MAB	Man and the Biosphere Programme
MMA	Ministry of Environment
OGT	Gonawinda Tayrona Indigenous Organisation
PNNT	Tayrona National Park
POT	Regional Land Use Plan
SIMAC	Monitoring System of Coral Reefs
SINA	National Environmental System
UAESPNN	Special Administrative Unit for the National Parks System
UNESCO	United Nations Educational, Scientific and Cultural Organisation

Preface

The issue of Biodiversity and Tourism is linked to all three objectives of the Convention on Biological Diversity, that is, (a) the conservation of biological diversity, (b) the sustainable use of its components and (c) the fair and equitable sharing of benefits. After a long process of discussions in different forums, the 5th Conference of the Parties to the Convention, on the basis of an analysis of the positive and negative impacts of tourism, decided in May 2000 in Nairobi to accept the “invitation to participate in the international work programme for sustainable tourism development under the Commission on Sustainable Development process with regard to biological diversity, in particular, with a view to contributing to international guidelines for activities related to sustainable tourism development in vulnerable terrestrial, marine and coastal ecosystems...” (V/25). In June 2001, the Secretariat of CBD with financial support from the German Federal Ministry of Environment organised an international workshop on biological diversity and tourism in Santo Domingo, Dominican Republic, where a preliminary version of the international guidelines for activities related to sustainable tourism development in vulnerable ecosystems were elaborated.

One of the recommendations of the international workshop on biological diversity and tourism, in relation to future actions to be taken with the guidelines, states that the guidelines should be demonstrated through the implementation of pilot projects, and encourages submission of reports and cases-studies on the findings of such projects, to the Secretariat of CBD. In taking up this recommendation, the Colombian Special Administrative Unit for the National Parks System and the German Federal Agency for Nature Conservation, decided as part of their bilateral cooperation programme hold a workshop with participants and experts from different institutions at the local, regional, national and international level, to elaborate this case study on the Tayrona National Park. The present document includes conclusions and recommendations for the sustainable tourism development in the Tayrona National Park, which harbours vulnerable ecosystems and a great wealth of biological diversity, as well as an evaluation of the preliminary version of the CBD guidelines.

We hope that the results will be useful for the visitor management strategy of the Tayrona National Park and as a contribution to the discussions in relation to the international guidelines for the sustainable development of tourism.

Prof. Dr. Hardy Vogtmann
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Director General
Special Administrative Unit for the
National Parks System, Colombia

Introduction

This document is the result of a workshop with experts and participants from different institutions to analyse the development of tourism in the Tayrona National Park, Magdalena Region. This is a region of Colombia that is characterised by a high degree of biological diversity and vulnerable ecosystems. The workshop was organised as part of the bilateral cooperation on issues of biological diversity and tourism between the Colombian Special Administrative Unit for the National Parks System, UAESPNN, and the German Federal Agency for Nature Conservation. This bilateral cooperation was established in 1999 with the objective of supporting capacity building and the transfer of technologies on CBD issues.

The workshop had two objectives. The first objective was to develop conclusions and recommendations concerning the Tayrona National Park's strategy for visitor management within its boundaries, through an analysis of the tourism situation in the Park. The second objective was to apply the preliminary version of the international guidelines for activities related to sustainable tourism development in vulnerable ecosystems, which had been elaborated in June 2001 by the Secretariat of CBD, to demonstrate and evaluate their usefulness.

The workshop was carried out in the Tayrona Nature National Park from 24 to 30 November 2001 and was facilitated by Dr. Richard Tapper (UK). The 17 participants included representatives from the following Colombian institutions:

- PNNT
- UAESPNN
- Ministry of the Environment
- Ministry for Economic Development
- Regional Government (Magdalena Region)

Directors from National Parks, Biosphere Reserves and Nature Parks in Costa Rica, Germany and Spain participated as well.

The methodology was highly participative, and used a mixture of group discussion, 'brainstorming' techniques, and group evaluation, to gather, collate and evaluate information. The framework of the draft guidelines provided the overall framework for the workshop. Discussions focused on each element of the guidelines as applied to the context of PNNT, and evaluated strengths and future challenges to be addressed. Participants drafted conclusions following discussion and evaluation of each element of the guidelines. Where possible, information was incorporated onto maps using PNNT's GIS system, which includes base maps and a range of other information for management of the park.

Participants also identified recommendations for actions to address future challenges, and those stakeholders who would need to support and participate in such actions for them to be successfully undertaken.

To familiarise all participants with key aspects of PNNT, and with the draft guidelines on tourism and biodiversity, participants were provided with key documentation about PNNT and issues relating to tourism and biodiversity, as well as with a copy of the draft guidelines, in advance of the workshop. Site visits were organised the day before the start of the workshop, and for one day during the workshop. In addition, a meeting was held with the Regional Governor and representatives of ETURSA and the Chamber of Commerce of Santa Marta.

Background information to the Case Study

There are about 400 protected areas in Colombia, including 46 which make up the National Parks System. The National Parks System comprises of 33 national parks, 9 flora and fauna sanctuaries, 2 natural national reserves, one park way and one strictly protected area, which totals to approximately 9 million hectares.

The National Parks System administers about 8 % of the national continental territory, with a high representation of the different marine and terrestrial ecosystems of Colombia. These areas have administrative and jurisdictional overlaps with indigenous reservations, communal councils from afro-Colombian areas, municipalities, regional autonomous corporations, organisations of sustainable development for the management of natural resources, and research institutes attached to the National Environment System. Some of the areas administered by the National Parks System are private properties whereby the owners belong to different economic levels.

The UAESPNN, which is part of the Ministry of Environment and therefore a public office with an operative, technical and executive character, is charged by legal mandate with the coordination of the National System of Protected Areas; with advising the social entities and organisations which are part of this system; and specifically with the management of the National Park System.

The UAESPNN comprises the Head Office with three sections (administrative, technical and management) and six regional offices (Atlantic, North-Occidental, South-Occidental, North-Andean, South-Andean and Amazon-Orinoco), and has a staff of more than 700 employees who are specialised in conservation. At the moment, the UAESPNN has to coordinate its actions with many social and institutional groups which contest directly or indirectly to the natural conservation in the country.

General Characteristics of the Tayrona National Park

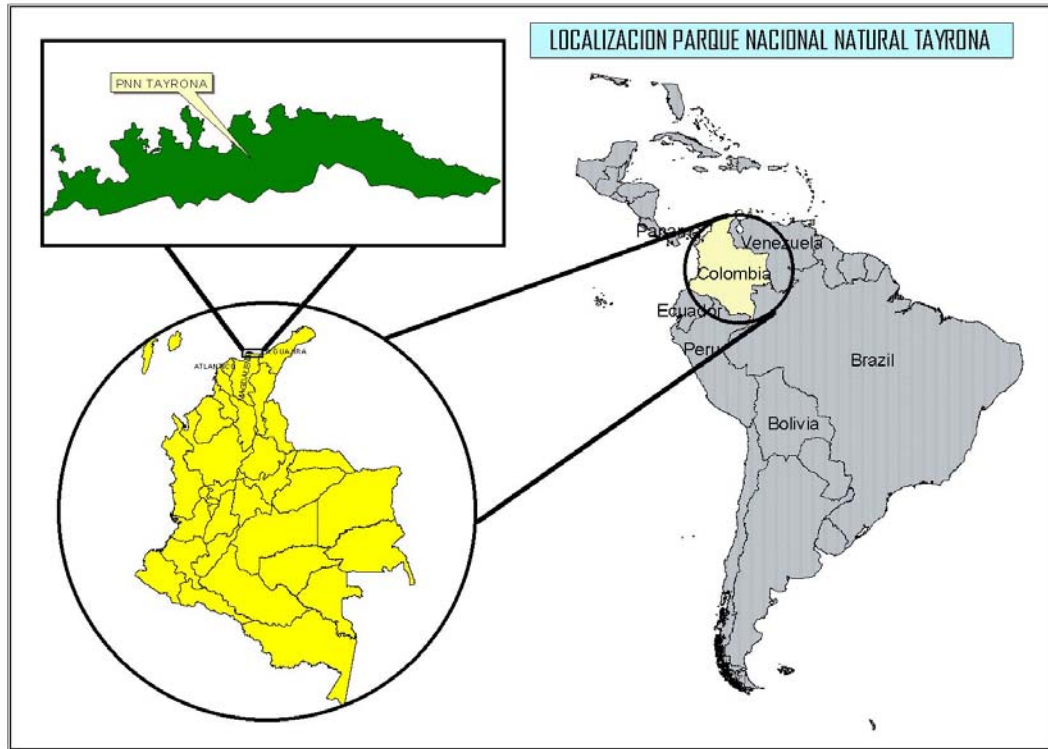
The Tayrona National Park, located in the Atlantic coast of North Colombia, is part of the eco-region called the Sierra Nevada of Santa Marta. It was declared protected area by law in 1964, and covers an area of 15,000 hectares, of which 3000 hectares are in marine areas. Although the Tayrona National Park does not contain indigenous reservations, it is part of the ancestral territory of the indigenous groups who live in the Sierra Nevada of Santa Marta.

In 1982, as part of its MAB Programme, the UNESCO declared the combined area of Sierra Nevada of Santa Marta and the Tayrona National Park as a Biosphere Reserve, demonstrating the importance of the region in relation to conservation and regional development.

The coastal area of the Tayrona National Park, although small in extent, is one of the sectors in the Caribbean which contains the greatest biological diversity of the American littoral. The nearby Sierra Nevada of Santa Marta, which with peaks of up to 5720m in altitude, is the highest coastal mountain range of the world, influences the landscape and life zones of the region. Within the tropical latitudes, the environments of the Sierra Nevada of Santa Marta range from permanent snow and down to considerable depths in the marine area. The region is recognised as a biogeographic enclave in which some species that are common in adjacent regions are

scarce or absent, while others that are rare elsewhere are frequently found, and in which there is a concentration of endemic species.

Map 1: Location of Tayrona National Park



There are four terrestrial ecosystems (thorn forest, dry forest, wet forest, cloud forest) and seven coastal marine ecosystems (beaches, reef formations, sedimentary planes, mixed sea bottoms, rocky littoral, mangroves, coastal pools). Their distribution, establishment, development and composition vary considerably from creek to creek, so that each of these ecosystems within the park is heterogeneous, a factor which further contributes to the biodiversity of the region.

Box 1: Conservation Objectives of Tayrona National Park:

- to conserve the mosaic of ecosystems which is unique at the tropical level in its diversity,
- to conserve the habitats of the endemic, exclusive, special, migratory and endangered species,
- to conserve the coastal marine habitats to keep the high diversity and the richness and abundance of species,
- to keep the natural beauties of the littoral landscapes,
- to keep the particular sample of cloud forest given the unique characteristics of altitude,
- to maintain a representative portion of tropical dry forest in good conditions,
- to keep the sacred sites as part of the indigenous territory of the Sierra Nevada of Santa Marta,
- to protect “Pueblito” as monument and national heritage and the pre-Hispanic township sites.

The terrestrial parts of the park are covered in rich vegetation, which varies continuously along the altitudinal gradient which rises from 0m - 900m above sea level. The vegetation types range from dry tropical forests, to thorny subtropical brushwood and tropical wet forests. The dry forests within the Tayrona National Park are the best conserved in the region and represent 1.5 % of the country's original coverage.

Table 1: DIVERSITY OF SPECIES FOUND IN THE TAYRONA NATIONAL PARK

Group	Number of species
SEaweEDS	350
TERRESTRIAL FLORA	765
MAMMALS	108
BIRDS	300
REPTILES	31
AMPHIBIANS	15
SPONGES	202
CRUSTACEANS	471
ANNELIDS	96
MOLLUSCS	700
CORALS AND ANEMONES	108
FISHES	401

During the pre-Columbian time, a large indigenous population was present within the area of the park, as evidenced through various archaeological sites. Many of these have not yet been studied: however, it is evident that the archaeological zones of the protected area were associated with ceremonial practices. This human occupation lasted until the mid-16th Century. Apart from great architectonic constructions like "Pueblito", there are semi permanent or seasonal places for living, cemeteries and ceremonial sites in different places within the boundaries of the park.

Due to its easy access, its location and the beauty of its landscape with a system of bays or protected creeks and large beaches, the Tayrona National Park is one of the most visited areas of the National Park System, and attracts both national and international visitors. In spite of the public order problems of the country, which have caused a considerable decline in the general levels of tourism in Colombia, the park, as is demonstrated in the following numbers, receives a significant number of visitors annually. The income that this tourism generates is very valuable not only for the maintenance of the area, but also for local people living around the park who gain a living from tourism activities, and generally for the district and for tourism organisations in Santa Marta.

Table 2: Income generated from tourist visits at Tayrona National Park

Year	Number of visitors registered	Index	Income (Colombian Pesos)	Income in constant 2001 prices (Colombian Pesos)
1990	108.426	7.52	\$22.133.830	\$166.542.414
1991	118.188	5.69	\$32.656.290	\$185.684.998
1992	82.000	4.48	\$63.665.280	\$285.446.602
1993	60.916	3.58	\$90.379.585	\$323.840.471
1994*	24.949	2.92	\$75.846.315	\$221.668.915
1995*	1.937	2.38	\$16.659.800	\$39.717.788
1996	62.191	2.00	\$390.038.947	\$778.396.241
1997	73.725	1.64	\$488.768.180	\$802.162.036
1998	46.753	1.39	\$371.707.738	\$516.985.990
1999	34.937	1.20	\$276.401.620	\$331.405.542
2000	37.307	1.09	\$304.200.576	\$331.578.628

Source: Visitor Office, UAESPNN

*Park closed because of public order problems or infrastructure maintenance

Table 3: Administrative Structure of Tayrona National Park

Extension: 15.000 hectares		Infrastructure:	
Staff:	1 Park Director		3 Control stations
	3 Officials		2 Ecotourism sites
	20 Workers		4 Access areas
Total:	24 Staff		1 Ethnology Museum
			1 Parking
			1 Administration Office
Annual budget:	US\$200.000		3 Vehicles
Income foreseen for 2001:	US\$250.000		1 Boat

The ecotourism offer of the park

Santa Marta has a tourism tradition because of its landscape beauty and its geographical location (the Atlantic coast). In the department of Magdalena, there are some of the best beaches in the Caribbean, some of which are situated within the Tayrona National Park. Because of this, tourism is an important source of income for the people of Santa Marta. Tour operators in the area have mainly focused their activities around the marine areas of the park where public use is permitted.

Due to the proximity of the park to the city of Santa Marta, the tourist activities planned for the visitors to the city are heavily focused on the park and its attractive landscape and beaches. As a result, the people of the region and the Regional Government have an interest in promoting ecotourism developments within the area, for both economic reasons and for the benefits that the park can provide to the local and regional community as a source of income and an area for leisure and recreation.

Based on the cultural and biological diversity of the park, there are three basic options for development of ecotourism:

Terrestrial zone

In the terrestrial sector, there are interpretative trails through tropical wet forests, dry forests and cloud forests. Lodging facilities are available around the Arrecifes area, where there are areas for camping, accommodation in hammocks, a potable water supply, a restaurant and toilets. In Cañaveral, there are the eco-lodgings called “ecohabs” with a restaurant, camping area, an Indigenous Archaeology Museum, called “Charaima”. There is also a trail that leads to a view point. An eco-shop will open soon to sell local handicrafts, books, etc, and two information centres are also due to be opened, one in Cañaveral and the other in Palangana.

The road “Troncal del Caribe” which leads from Santa Marta to Riohacha connects both areas, with an entry into the park through the “Zaino” sector. From this point, there is a local transport service to Cañaveral, 5 km away, and from there there is a track to Arrecifes, which is 5 km from Cañaveral. Horses are available for hire between Cañaveral and Arrecifes.

Cultural sites

A path leads to the archaeological site “Pueblito” which belongs to the Tayrona culture and which can be reached in approximately three hours from the settlement of Calabazo, situated on the road “Troncal del Caribe”. The path is of moderate difficulty, and passes through wet forests and cloud forests to a series of architectonic structures that date from the 6th and 7th Centuries. Another path along an indigenous stone road to the north-east of the site goes to the Cabo de San Juan de Guia beach on the coast, which can be reached in about one and a half hours of walking.

Marine zone

The marine zone of the park covers 3000 hectares. The Neguanje and the Cristal beaches are the most visited sites within this protected area, and are reached through the Palangana sector, either via a 20 minute walk or via a boat service that is provided to both beaches by local fishermen. The Cristal beach is good for snorkelling or diving, and has several local restaurants which serve typical Caribbean food.

There are good sites for scuba diving in the area of Granate and Punta Aguja.

The Arrecifes area, which can be reached from Calabazo, or via the Pueblito Path, or from Cañaveral (the shortest and most used way, and which is also served by horse treks), is located near several beaches, including the Piscina, the Cabo de San Juan de Guia and the Boca del Saco beaches.

Finally the beach which is most visited by local tourists is Bahia Concha because of its proximity to the city of Santa Marta, and its landscape beauty.

Application of the Draft CBD Guidelines on Biodiversity and Tourism

1. Analysis of Institutions

Several institutions at the national, regional, and local level are influential in the development of tourism in the Tayrona National Park. It is administered by the Special Administrative Unit UAESPNN of the Ministry of Environment, and operates within a legally defined mandate. The Park is situated in the Municipality of Santa Marta, which is part of the Magdalena Region.

The following institutions have responsibilities and operate within and around the park: the Regional Autonomous Corporation of Magdalena (CORPAMAG), which is responsible for the management of natural resources in the buffer zone: the DIMAR which is responsible for the management of the marine-coast area and the rural DAS which supports policing and law enforcement.

The Tayrona National Park is part also of the ancestral territory of the indigenous groups of the complex of the Sierra Nevada of Santa Marta, although the park itself does not overlap with any of the four reservations which form this complex.

The General Tourism Law of Colombia sets out that the Ministry of Environment together with the Ministry for Economic Development decide the tourism policies for the national parks. Regional organisations working in the area of tourism development include the Santa Marta Tourism Company, ETURSA and the Chamber of Commerce of Santa Marta. APRESTAYRONA, ASOPLAN, ARRITAYRONA, and ECOTUR all provide services within the park through agreements with the UAESPNN.

Several projects involving international cooperation, are also in progress in parks throughout the Magdalena Region:

- a sustainable development project for the Sierra Nevada of Santa Marta (European Union)
- a GEF project for the Sierra Nevada de Santa Marta executed by the Pro Sierra Nevada Foundation
- a learning and innovation project developed by the Pro Sierra Nevada Foundation, with French economic support
- an alternative energy project for the ecotourism infrastructure of the Tayrona National Park, with the support of India
- a “Ricercae Cooperazioni” Project in the basin of the Palomino and Camarones Rivers (Italy)
- a “Consolidation of the Public Use in the Tayrona Nature National Park through Communal Participation” Project with the Spanish International Cooperation Agency
- Cienega Grande de Santa Marta project with the GTZ (Germany)

The country has laws and regulations for the protection of wild areas and for the development of tourism, and there is a general political consensus in the fields of nature protection and tourism development. There is political willingness to develop ecotourism especially in the national parks. Ongoing projects in these areas are looking at these issues, but there is a need for the ideas of ecotourism to be incorporated into ecotourism plans that are applied at the regional and local levels.

The UAESPNN regards ecotourism in national parks as a tool for raising public awareness on the goods and services provided by protected areas, going beyond the traditional functions of conserving wild flora and fauna, which are commonly associated with national parks by society.

Strengths

- The public and private sectors are working together to include all parties affected by tourism. Regional bodies have good access to local and national government and there has been a clear political willingness to acknowledge the roles and authority of the various institutions involved in environmental protection and in tourism activities, and to open up communication channels amongst them. An important function of the Regional Government is to promote development of consensus amongst the different institutions of the region, by creating appropriate processes for interaction. A process of environmental awareness has also begun at the top levels, and is benefiting planning and strategy.
- A national tourism policy exists which aims to improve the competitiveness of the tourist destinations throughout Colombia, and which is put into practice through agreements with regional “clusters”. This avoids duplication of initiatives in each region and is bringing together all stakeholders involved in tourism development.

Challenges to be addressed

- The current agreements on the management of the park and tourism activities within it, are vulnerable to future political changes in both local and national governments.
- There are also problems with putting the land use plan of the tourist district of Santa Marta into practice. It is a document which demonstrates, but does not resolve, a clash of interests between the conservation of the biological diversity of the area, tourism and economic development. In its final draft, this document did not consider the conservation objectives of the park although the technical advice was made available by the park administration to form this policy.
- Insufficient work has been done to develop the feeling of involvement with the park and its conservation objectives, among the people of Santa Marta.
- Traditionally there has been political and educational emphasis on mountain and terrestrial areas in the Andean region, and relatively far less attention has been given to the dynamics of the coastal and marine areas.

2. Baseline Information and Review

Scientific information has been accumulated to help determine the carrying capacity of the Tayrona National Park, and to establish different zones within the park for management purposes, including zones where tourism of particular types is most suitable, and other zones which should be free from tourism. However the park does not have sufficient detailed information for the assessment of ecological and socio-cultural impacts.

Strengths

- The existence of a wide frame of regulations and political guidelines for ecotourism which give general direction for the practice of ecotourism activities. Politically this is seen as a priority.
- The Tayrona National Park has good information about marine-coastal ecosystems, taxonomic lists on endemic, exclusive, migrating and endangered species for the park as a whole. This information has already been used in zoning the park, and for the classification of the coastal ecotourism sites. It could also be applied to develop management criteria for avoidance or prevention of damage that can result from tourism, and for education and publishing purposes to raise awareness of tourists about the sensitivity and ecological importance of the places they visit.
- The UAESPNN has some information about the evolution of the ecotourism market, opening up the possibility of setting up projects to develop ecotourism for which there would be a demand in the market. However, studies about ecotourism markets are insufficient.

Challenges to be addressed

- There is no adequate framework to allow the exchange of information between traditional indigenous knowledge and scientific-technical knowledge, and this prevents the integration of such knowledge in assessments of plans for tourism development, and in evaluations of the effects of existing tourism.
- There is an absence of indicators to assess and monitor the social and cultural impact of ecotourism, and more information is needed on the scale of its economic contribution to communities.
- There is no assessment of flora and fauna species which can be used as indicators of the impact of the ecotourism activities - such information is necessary to assist in management actions to counteract any damage to biodiversity that may occur through tourism, and to adjust and plan tourism activities.
- More information is needed for all the planning levels and decision making.

3. Analysis of the Vision and Goals

The development of ecotourism in the national parks is seen as an option which could reduce the impact on land use and promote activities which are more compatible with conservation. It could clearly have a place in the development of the Tayrona National Park.

Inclusion of consideration of tourism within national parks, and of the necessity of such tourism being compatible with the objectives of national parks, within an overall vision for tourism development, could contribute to increased competitiveness of tourism in the various regions.

The 2001-2003 economic development, social and infrastructure plan for the municipal government of the District of Santa Marta proposes encouragement and promotion of tourism as a means to support the management of the Tayrona National Park.

However, the Regional Government of Magdalena plans to turn Santa Marta into an ecological tourism destination, and regards this as a means to contribute to social capital within the region. It aims to win national and international support for this plan.

The administration of the Tayrona National Park has been able to promote ecotourism within the park as a direct spin-off of the UAESPNN vision which is linked to the national level policies on ecotourism. The UAESPNN vision has helped to strengthen the park's ability to work with and direct the activities of the different actors involved in tourism in Tayrona.

Strengths

- The UAESPNN has developed an ecotourism strategy for the national parks which takes into account the principles of leisure and environmental education within the overall framework of conservation objectives for each park.
- There is an acknowledgement of the respective authority of the indigenous representatives and the UAESPNN in relation to the development of tourism in the area. Any project to be implemented requires prior consultation with the indigenous groups of the region, especially in relation to sacred areas (e.g. Pueblito), and to which they respond by defining minimum criteria to respect their culture. These minimum criteria have the same value as a legal norm. The UAESPNN plans to establish a dialogue with the indigenous groups on ancestral cultural principles and current norms of the country, especially as regards the development of tourism activities in culturally important areas.

Challenges to be addressed

- There are still differences between the various institutions involved in tourism development in the Tayrona National Park, but there is optimism about the possibilities of reaching consensus on the basis for tourism activities within the park, and which would be compatible with the park's overall conservation objectives.

4. Analysis of the Objectives

To put into practice the vision and goals of the UAESPNN, an advisory committee of land owners has been created in agreement with the people offering services in the Tayrona National Park. The following basic objectives have been approved by all members:

- every action should aim to maintain the integrity and the conservation of the park;
- it should look for the transference of land ownership to the nation;
- ecotourism could be used as a tool to solve conflicts;
- the UAESPNN sees ecotourism as a tool and strategy for conservation.

Strengths

- The park has already accepted the idea of preliminary zoning and carrying capacity studies have defined a maximum limit of tourism development within specific zones.
- There is a basic understanding of ecotourism issues and overall objectives in the park among the different stakeholders which promotes cooperation.
- It has been agreed by the actors at local and regional level to focus ecotourism activities in certain sectors of the park.
- The private sector already provides some tourism services in collaboration with the park. This frees up the technical staff of the park for conservation and awareness-raising tasks. Such collaboration also increases the support of private enterprises for the work and objectives of the park.

Challenges to be addressed

- Even though the UAESPNN is willing to put into practice objectives for the sorting out and planning of ecotourism activities, their implementation has been inhibited by the need for complementary and linked actions by other institutions in order to put them into practice effectively. This has slowed progress in implementation of objectives by UAESPNN.

5. Review of Legislation and Control Measures

The country has very detailed and coherent legislation and normative standards, both for the development of ecotourism and for the protection of the environment.

In relation to the environment, this development of legislation started with the promulgation of the law decree 2811/74 “Legal code for Nature Resources”, which was followed by the Decree 622/77, creating the National Park System and achieving a more applied development of legislation with the establishment of the Ministry of Environment and the National Environment System, SINA; through the law 99/93.

The "Tourism" Law 300/96 set out a framework for the development of tourism which was to be regulated by the General Tourism Office, under the Ministry for Economic Development. This shows how seriously tourism is viewed as a national resource with implications for economic development.

As a consequence of the promulgation of these laws, specific regulations and proceedings have been developed to regulate the development of tourism especially in the national parks.

The UAESPNN has legal authority to fix park entrance fees, and to control, and raise income through income generating activities, including through provision of lodging, and through charging for photography and film rights within the park. This income is deposited directly into an account for use by the UAESPNN, called the Sub-account of the National Environmental Fund.

Strengths

- There is a general framework of legislation and a series of procedures and regulations relating not only to the environment but also to tourism, town and city planning as well as the establishment of development plans. The legal structure and normative standards are well structured and incorporate environmental elements at all levels: they provide a basis for regulation of the development of tourism activities.
- The Ministry for the Environment has authority to supervise the enforcement of this legislation. Together with the Ministry for Economic Development and the DIMAR, it makes decisions about all tourism development projects.
- The 1991 Constitution confirmed the collective rights of the population to participate through such mechanisms as public consultation, and their exercise of the rights of claim and guardianship. This allows them direct intervention in relation to the problems that could arise through tourism initiatives in protected areas.

Challenges to be addressed

- However, in spite of having sound and appropriate legislation, there are problems in ensuring that it is enforced effectively.
- Law enforcement is made difficult by the limitations of the administration, and by the shortage of human and financial resources. Disagreement between the political and local groups can also delay progress.
- There are varied jurisdictional and administrative problems including:
 - overlap of powers and authority between different institutions, which can cause duplication of efforts or even lead to a lack of action by any of the institutions;
 - the unclear situation of land ownership, which can lead to serious delays in the fulfilment of legal obligations; and
 - the continuation of some tourism projects which have failed to comply with legal requirements during their establishment - their illegal situation undermines the image and weakens the efficiency of the institutions.

- The regulations for the public use of protected areas are inadequate and do not allow for a meaningful establishment and enforcement of carrying capacity limits or limits of acceptable change, or for ensuring that public use takes place within the capacity of the available infrastructure, among other things. This makes it hard to translate policy into guidelines for implementation. This results in situations in which public use is uncontrolled and may develop illegally, without any consideration of the environmental and conservation impacts. Such situations and illegal developments undermine to park administration.
- Finally there are no financial incentives to give priority to the development of ecotourism projects, which makes it hard to involve and work with the private sector. There is also a need to develop regulations for compensation for contamination, deterioration and use of natural resources.

Editors' Note: Some of the comments about the legal framework made at various points in the text, seem to be contradictory. This may be because, while the general legal framework is good in principle, there are problems relating to enforcement, inadequate regulations on public use of protected areas, lack of financial and legal penalties for adverse effects on natural resources, and a general lack of a detailed basis for more local level implementation of national legislation.

6. Impact Assessment

The development of tourism in the Tayrona National Park affects the environment and has an impact on the biological diversity of the area, as well as social and cultural consequences.

Tourism can provide a positive benefit to the economy of the region, through the creation of jobs, and through possibilities to shift land use towards more sustainable practices. Revenues can be generated through tourism and potentially used to assist:

- maintenance of the protected areas;
- development of a regional infrastructure, including providing funding for accommodation and other tourism facilities and upgrading the local road systems; and
- activities for raising the awareness of environmental issues amongst visitors to the park.

Tourism development also has negative consequences, which can include:

- damage to natural landscapes through overuse and development of land;
- overuse of water resources through intensive demand from tourism for water;
- production of solid and liquid wastes;
- damage and destruction of habitats and vulnerable ecosystems;
- damage to wildlife through loss of habitat and changes to the normal behaviour of animals affected by tourism.

These problems can be further increased as a result of illegal construction and development of tourism, and unauthorised use of areas for tourism activities. Social problems such as prostitution or use of illegal drugs, can also be increased as a result of tourism.

Strengths

- The UAESPNN, INVEMAR, and the DIMAR, have direct involvement in impact assessment, including impact assessment in relation to tourism. In addition, monitoring and evaluation will be carried out by the universities, specialised consultants and the local community.
- In relation to the use or occupation of land for lodging, tourism facilities or other infrastructure there are studies on occupation and land ownership, along with regulations and building criteria for infrastructure. These are sources of the basic information needed for the regulation of tourism and decision making.
- In particular, there is a monitoring and evaluation committee involving the local community, which not only looks at the general impact of tourism and allows for an exchange of information, but also helps to generate the active involvement of the local community in the management of tourism in balance with the conservation objectives of the park. There is also an inter-institutional committee comprising different local bodies: (Office of the public prosecutor, Attorney general's Office, the Mayoralty, the DAS, the police, the DIMAR) which is keeping monitoring development and can take measures to check inappropriate action, and to protect the park.
- There is also a document about the regulation of tourism in the area which proposes zoning and defines which areas may be used and sets limits on growth for different aspects of development, including infrastructure, in each area.

Challenges to be addressed

- Current judicial practices are failing to act effectively against illegal building within the park. Once detected by the UAESPNN, the penalties for illegal activities are not being enforced so there is no deterrent and the credibility of the judicial process, and that of the UAESPNN, is compromised. The failure of the judicial process in this respect indirectly provides encouragement to further illegal building within the park.
- Finally there are no intensive studies about the impacts generated by ecotourism development and activities. More concrete information could lead to better provision of technical support for this kind of development. There is a need therefore to form interdisciplinary groups among the UAESPNN, Ministry for Development, research institutes, the local communities and experts in order to carry out environmental impact assessment of proposed projects that may be developed by UAESPNN or by other actors (eg. private sector).

7. Impact Management

The management of tourism impacts in the park is part of the general management of the area.

Strengths

- The park has a general set of agreements for the supply of ecotourism services with various service providers. By establishing authorised service providers, the park authorities are better able to control illegal activities in this area. There is also agreement to set up a legal process to examine the possibility of reversion to the nation of private property that is held within the park, by making linkages to the introduction of planned ecotourism.
- The inter-institutional committee for the defence of the park has the power to act in cases of illegal use or occupation of land. In addition, current zoning of the park, and associated limits for acceptable change and carrying capacities for sites with tourism potential, have set maximum limits for tourist numbers, and these limits can be applied to regulation of development in the Tayrona National Park.

Challenges to be addressed

- Currently, the State does not have the means to buy land, which prevents the implementation of some of the conservation objectives. There is no agreement about the interpretation of the law and the legal procedures that may resolve the ownership and possession of land (85% of the park is under discussion because of its unresolved property status). This situation makes it difficult for the park to reach agreements with owners and occupiers of land within the park over its management, and in particular, to control development within the park.
- The UAESPNN has scarce human and financial resources, limiting the attainment of conservation objectives in the area.

8. Decision Making

The park Advisory Committee includes the Regional Government of Magdalena, the Ministry of Environment, the UAESPNN, the Mayor of Santa Marta, landowners representatives, the Chamber of Commerce and CORPAMAG. It provides a forum for negotiation and for translating proposals concerning the park into practical actions, with appropriate legal and political support.

Strengths

- For the legal development of ecotourism projects within the protected area, an environmental impact study is required and the decision should be taken by the Ministry of Environment with the technical contribution of the park.
- The DIMAR has the power to decide about the use of beaches and to take necessary actions to control their use.
- The inter-institutional committee for the defence of the park gives backing for institutions such as the DIMAR or the DAS to institute legal proceedings for decision making. In principle, this allows affected parties to call upon these institutions to enforce the law.

- The monitoring and evaluation committee provides a forum within which decisions that may affect the organisations providing ecotourism services can be discussed.
- The decision making process can be affected by political pressure as well as by the communities who depend on the activities within the park.
- It is seen as a very positive step that there are a set of regulations for tourism at national level and another set in relation to environmental issues. These provide an important basis for decision making.
- Consultation between the park administration and local organisations such as the APRESTAYRONA, tourist guides, the Advisory Committee, the Evaluation and Monitoring Committee, the Defence of the Park Committee strengthen the management of the park, and helps to develop communication and trust between the local communities and the park.

Challenges to be addressed

- There is no coherent national policy and only the start of a move towards ecotourism, which remains a very new approach in both the country as a whole and in the national parks in particular. Currently, regulations for ecotourism projects (terms of reference, guides, monitoring and auditing) are inadequate, and in need of further development. This partly reflects the fact that consideration of tourism within a framework for sustainable development has begun relatively recently.
- There have been insufficient environmental evaluation studies concerning the infrastructure and environmental conditions in the Tayrona National Park. Shortage of human resources, particularly technical staff, make the process of monitoring and evaluation difficult. This in turn makes it difficult to propose measures to avoid or minimise potential adverse impacts on the protected area in relation to proposed tourism activities. The process of environmental licensing and procedures of auditing of projects within the park, are also not able to be fully applied owing to the lack of trained staff and of human resources which can be dedicated to such work.
- The precautionary principle as a tool for conservation and sustainable management of a protected area is only beginning to be accepted, and this prevents it from having sufficient importance in decision making. This occurs in the cases of the Bahia Chengue and Bahia Cinto which are classified as intangible zones and yet which are under threat of development.
- In spite of working to integrate carrying capacity and limit of acceptable change (LAC) into the assessment of proposals, there is still a need to develop more detailed system for assessment of proposals before making decisions about future developments in the park.

9. Implementation

Up to now, private development of tourism has not been subjected to a process of planning and assessment so there has been no way to exert any controls or to ensure that developments fulfil conditions necessary to avoid or minimise adverse impacts. There is however a desire to establish a mechanism to enable conditions to be set which projects - including tourism development projects - would be required to meet.

Strengths

- Various institutions want to establish clear planning guidelines that would have to be met for the implementation of projects;
- Joint activities established between the park and local communities to enhance the involvement of local communities in the provision of services, have led those communities to agree to controls on their activities within the park, and to themselves act to ensure that such controls are effectively applied. This has also led to a greater involvement of the local communities in the work of the park in general.
- Projects developed by the UAESPNN have applied the precautionary principle, looking to avoid or minimise potential adverse environmental impacts. At present there are projects in Arrecifes and in Cañaveral which aim to use environmental criteria to improve their infrastructure.

Challenges to be addressed

- There is no overall management plan in the park which could provide a general framework for the development of ecotourism, nor are there guidelines available on how to develop and plan ecotourism in Colombia's parks - a systematic approach needs to be established for this
- There is no experience in the approval and concession of environmental licenses for tourism projects within the park. As a consequence it has not been possible to establish a set of conditions - which would be applied during the planning and approval processes - for the implementation of ecotourism projects in the park.
- The old projects developed by the UAESPNN have generally been designed in a centralised way. In only a few cases, have projects been developed with local-level participation.

10. Monitoring

Ecotourism is a relatively new activity in the Colombia's national parks, and currently there is not enough experience either in the management of ecotourism activities or in ways to control its outcomes. It is important to develop appropriate monitoring and surveillance for these growing tourism activities, and to take into account the negative impact of other types of tourism in other areas of the country.

In the Tayrona National Park, a series of conditions have been set in order to promote ecotourism as a way to ensure protection of the biological diversity of the area and at the same time to contribute to the economic development of the region.

Since the mid seventies, visitor numbers have increased in the Tayrona National Park as a direct result of the opening of the “Troncal del Caribe” road. No effective monitoring plan was in place to measure the impact of increased tourism activities and numbers of tourists in the protected area.

In the last few years, attempts at monitoring have been made, but these have been isolated and fragmented. There is no strategy for establishing coordinated and systematic monitoring at national or at regional level. The development of ecotourism in the protected areas has only recently been submitted to planning and monitoring procedures. Faced with new pressures for an increase in ecotourism activities, it is now urgent to establish effective monitoring in order that the development of such tourism can be properly planned and managed within and around the park.

Strengths

- Supervision of the implementation of projects and activities is carried out at a local level, where the activities are directly related with the area, and at a regional level, dealing with more general projects and initiatives integrated to the area.
- Already, local level studies exist which offer concrete or specific direction for the development of ecotourism activities within the park - in some cases, these studies have been carried out as part of agreements with other institutions to monitor certain aspects or areas of the park. Furthermore there is a monitoring framework which can monitor agreements with service suppliers within the park, through the Monitoring and Evaluation Committee - this allows verification of their compliance with conditions set out in the agreements made with the park, and allows any problems that may arise to be addressed. The work of the Defence of the Park Committee includes doing a follow up of actions taken to combat illegal activities related to tourism.
- At the regional level, there is a basic agreement among the institutions responsible for starting tourism projects in the Caribbean “cluster”. Moreover, the Ministry for Economic Development supports a project for the training of guides and enterprises. This provides a mechanism to control standards and qualifications of guides, and to ensure that they provide appropriate information to raise awareness of environment and conservation issues amongst visitors to the park.
- In relation to the monitoring and management of the impact of tourism on biological diversity, the following are particularly important:
 - the National System of Coral Reef Monitoring and monitoring of marine grasslands (Jorge Tadeo Lazano University) which provides a good indicator of the health of both of these ecosystems, and which also monitors impacts from human activities.
 - the National Fishing Institute regular monitoring of fishing villages and fishing activities, to gather information on changes in marine fauna of economic importance
 - there are also monitoring programmes for the bird life and insect populations of the park, for example the Monitoring Programme of Insect Diversity in Colombia by the Alexander Von Humboldt Institute.

These monitoring activities provide some basic information that can help assessment of the possible impacts of ecotourism.

- In relation to monitoring of the socio-economic and cultural impacts of tourism in and around the park, there is statistical information about visitors in the most frequented areas of the park, in the sectors of Neguanje, Cañaveral and Calabazo. A preliminary study has quantified the economic benefits gained from tourism by the communities of Neguanje and Cristal Beach. In both cases, there is a lot of uncertainty, arising from a lack of information and monitoring, about the socio-economic repercussions of tourist activity in the park. Questionnaires have been used to measure user satisfaction in the Cañaveral sector, to get an impression of the quality of services provided.

Challenges to be addressed

- There is no systematic monitoring of ecotourism in the park and no coherent system to assess any data that has been collected - as a result, monitoring lacks continuity.
- Monitoring processes are at a preliminary stage requiring work to establish long term assessment programmes - in part, this reflects lack of national guidelines for monitoring.
- There has been no calculation of the benefits to the local people in cases where they have moved from illegal activities to supplying services for ecotourism.
- There is no systematic monitoring of the possible impacts of the tourism in the sacred sites of the indigenous communities within the protected area, because there is neither the methodology nor the resources available for this to happen at present.
- Although the universities could use their expertise to help set up a monitoring process - so far, agreements between universities and the park focus more on research. These need to be expanded to include monitoring activities. A clearer sense of direction and common interests could be achieved by coordinating the input of scientists, and the park managers.
- Finally the lack of trained staff makes monitoring difficult. Staff training is important if the development of future ecotourism projects is to be properly controlled so that it is undertaken in ways that are compatible with the conservation of the park's biodiversity and wildlife.

11. Adaptive Management

The UAESPNN has the powers and the dynamism to tackle the technical, political and social challenges that are inevitable when setting out guidelines for the management of ecotourism in the national park.

Faced with a series of conflicts over land use, the UAESPNN has worked to establish committees, working groups and meetings with the different stakeholders to discuss the way forward, and to establish ways for them to participate in the activities and contribute to the management of the park.

Strengths

- The UAESPNN is able to act proactively at a local level to address and correct any problems that may arise, so as to minimise potential adverse effects.
- The agreements about the regulations of land use have involved all stakeholders in the park;
- Technology is starting to be used (information systems, early warning systems) to facilitate effective and rapid decision making, and this enables the park to respond in an adaptive way to changes and developments more rapidly and effectively;
- Educating the general public about the vulnerability of the beaches and bays, about why the protected area exists and about its objectives, and about the need to protect the majority of the park and its bays from development
- The staff of the UAESPNN have a strong sense of loyalty and involvement which helps to carry a project through even in the face of economic and security problems;
- The implementation of agreements with the service suppliers in some sectors allows the involvement of stakeholders in the management process;
- Indigenous organisations are being involved in the decision making process. The establishment intercultural dialogue concerning zones of cultural importance, and of agreements with indigenous organisations for the management of these zones, has strengthened mutual understanding of the roles that indigenous communities and the park have in the park and surrounding territory. This intercultural dialogue is essential to maintain mutual recognition and understanding of the various interests amongst all the participants in relation to the indigenous groups that are located in the area.

Challenges to be addressed

- There is a need for an effective management body to oversee and correct any problems arising from ecotourism within the park.
- More information and data are needed on the local ecosystem in order to improve decision making and management of the park.
- There is little monitoring of the local ecosystems and of socio-cultural changes related to the tourism activities - this means that adverse impacts may not be detected, and therefore may go uncorrected.
- More effort is needed to involve local tourism operators in the development of the park and to gain their commitment to the work of the UAESPNN.

12. Notification Process

Once the technical concept for any project proposal which may affect a protected area has been examined by the environmental authority, the National UAESPNN and the Tayrona National Park works with the environment authority to identify how information about the project proposal needs to be disseminated and notified to the various other authorities and stakeholders, including communities, in and around the park.

However, at present, except for notification requirements that are required under the national law - which are made through a judicial process with resolutions and public documents - the park has no official procedure of its own for notifications.

Certain aspects of notification are already becoming established.

- The “public call” for tenders and proposals demands impartiality and transparency in the selection of projects and their management as required by the UAESPNN.
- The monthly publication of the State “The Official Newspaper” has the legal duty to publish all decisions about the park (resolutions, permits, licensing, contracting), and so provides the public at national level with information and notification of decisions taken and projects proposed within the park.

Strengths

- In the case of the proposal for tourism infrastructure at Bahia Concha, Tayrona National Park, there is an opportunity to anticipate and apply procedures and requirements for notification, and through this, to ensure that the study of the proposals, and any final approval given, take into account the needs and objectives of the park. There is the opportunity to put into practice some of the proposed guidelines on tourism and biodiversity that are being developed through the Convention on Biological Diversity.
- At the same time, this also provides an opportunity for the framework that is outlined in the draft CBD Guidelines on Tourism and Biodiversity, to be incorporated into the terms of reference and operating procedures of the park, with adaptations where necessary, to address the specific conditions of the park.
- By applying the draft guidelines in the case of the proposal at Bahia Concha, it will be possible for the park to develop and test the steps and procedures for notification and examination of ecotourism proposals in general.
- The development of strong technical arguments and expertise, along with guidelines for ecotourism development within the park, will also strengthen the park authorities in ensuring that the conservation goals of the park are respected when tourism developments are proposed, and decisions are made concerning development within the park. By applying such arguments and expertise, the park has recently been able to achieve an official public declaration that development is to be prohibited in the Bahia Cinto and Bahia Chengue, and that they are to be preserved as conservation areas.

Challenges to be addressed

- However, there has been resistance to this official declaration because of its implications for human activities in the Bahia Cinto and Bahia Chengue

conservation zones, and there are problems in implementation of the provisions of the declaration for prohibiting human activities in the two bays.

- It is necessary to establish clear procedures for notification, and to identify the participants who should be involved in these procedures so that the whole notification process is transparent and consistent.
- Provision of information to the public concerning projects is a recent development, and the UAESPNN does not yet have an established system of publishing details of its projects and ecotourism activities, or any other method of disseminating information to the community.

13. Public Education and Awareness-Raising

In the National Parks System and the Tayrona National Park, accommodation and services, including catering, have developed hand in hand with increasing visitor numbers. Education and awareness raising activities aimed at visitors are a recent development, and currently there is only a small amount of literature available to the public to enhance their awareness of the park and its environment. More sophisticated literature and general education materials for visitors will be developed as part of the ecotourism package.

The Tayrona National Park recognises that there is a need to improve its education and training programmes as part of its activities for ecotourism. The small number of educational activities have until recently targeted schools in the area, rather than visitors. As a result of awareness-raising campaigns, there has been a move for people to cease working in activities which did not benefit the environment, and to change their work to activities in line with ecotourism. Public education and awareness-raising have now become a priority within the park's plans, as they are a very important means of promoting and achieving the park's conservation objectives by gaining the understanding and participation of visitors to, and local communities in and around the park.

Shortage of funding has meant that the booklets and leaflets that were available in the past have been mostly discontinued, and that there have been insufficient financial resources for maintenance of signs providing information about the park and its environment - these have fallen into disrepair as a result. New projects for production of information and signs are now being established, and will focus on developing the information and interpretative educational materials for visitors to the park.

As tourism has not been officially identified by the authorities as the most effective way to develop the municipality, and is not seen as a priority for the Region, there has been no move by academic institutions to develop technical and vocational courses in tourism.

Strengths

- The ground work has been done to identify the present situation and requirements of visitors for information and awareness - this provides the

foundation for planning the educational programme, and for setting the priority aspects which it should cover

- A capacity-building plan has also been prepared and approved. This is directed to the social stakeholders who have involvement with tourism, including the service suppliers in the private sector as well as officials, and is designed to improve the overall ability to provide good quality services for tourism within the park.
- There are several approved projects:
 - a project to build two information centres in Palangana and in Cañaveral, respectively, for education and awareness-raising of the tourists at the start of their visits to the park;
 - the establishment of the Mobile Unit Project of Environmental Education for the urban areas of Santa Marta, in order to raise awareness of conservation and ecotourism amongst city residents (many of whom visit the park for day trips during public holidays). This aims to build a core of local inhabitants who will promote the value of ecotourism and biological diversity.
 - a plan for capacity building and awareness-raising for civil actors, through educational meetings involving the Regional Government of Magdalena, the Pro-Sierra Foundation and the UAESPNN and the institutions involved in planning.
 - another project aims to promote regional and local education through videos, sign posting, written information, guides and an information booklet, the environmental interpretation of two trails, Cañaveral and Pueblito, and the up-dated web page.

These projects aim to raise awareness and understanding about the park and the importance of its conservation objectives, at local, regional and national levels.

Challenges to be addressed

- There is no permanent programme of education in the Tayrona National Park or of awareness-raising directed at the different levels of government. This is partly because there is no planning or a proposal of a master plan for management of tourism and biodiversity within the park and the surrounding region. As a result, tourism development is *ad hoc*.
- Even where there is cooperation between the park and academic institutions, the influence of the Tayrona National Park is not sufficient to get courses developed which would link in directly with training for the park, and included as part of the academic curriculum for tourism training within the region.
- The sign-posting in the Tayrona National Park is generally insufficient.
- A more coherent strategy, which will need to include a clear planning framework as well as tools for management of tourism, is needed to cope with the high numbers of visitors, and will need to address visitation to all areas of the park, especially in Bahia Concha which has so far not been included in any training proposal. Capacity building activities for services providers will need to be a part of this strategy, to ensure that they fully understand the ways in which tourism is to be managed within the context of the park's conservation objectives.

14. Capacity Building

Currently the policies of the UAESPNN for capacity-building for ecotourism are insufficient; there is no continuous capacity-building programme for the staff with responsibility for tourism in the protected area. In part this relates to a lack of awareness at national, regional and local levels of the urgency for improving capacity on these issues.

Strengths

- There is an inter-institutional drive for capacity-building in the planning of ecotourism, formulation of projects and exchange of experience. Some action has been taken to promote and recognise the "culture" of information, in support of decision making, and to extend the knowledge and application of management tools in the park. Work is also underway to standardise information gathering for evaluation purposes.

Challenges to be addressed

- The budget shortfall makes it hard to promote capacity building programmes, as does the lack of appropriate capacity building provision by educational bodies. In the park system there are not enough experts or funding to be able to train the staff of the protected areas.
- There are insufficient programmes within the various organisations (including universities) for capacity building in relation to ecotourism. There has not been

interest from the different institutional actors to develop this area. There is no capacity building for design of tourism activities in relation to biological diversity, or for identification and management of the impacts that tourism can have on biological diversity. The situation is still worse for the social and cultural aspects because there is no adequate training in the institutions on either the identification of impacts, or for development of monitoring procedures, in relation to social and cultural aspects. There is a need to train the technical and operational staff in the park to respond to external tourism pressures which could affect the park, so that it can tackle problems in the future.

Conclusions and Recommendations

Taking into account the international guidelines to guarantee the compatibility between biological diversity and tourism elaborated within the frame of the Convention on Biological Diversity (CBD), the workshop participants identified the following overall strengths in the management of the Tayrona National Park:

In the first place, the existence of a process of agreements with the local communities for the providing of tourism services to visitors is highly valued. The tourism potential in relation to both natural and cultural resources is great, but is dependent on the continued conservation of these resources through the activities of the park. Any development of tourism activities therefore needs to be fully consistent with the conservation objectives of the park, and integrated into the park's management; and to be linked to support and funding for projects which the park authorities are developing, such as establishment of information centres and other programmes of publication and awareness-raising which both enrich the ecotourism experience for visitors and help to ensure that visitors understand and respect the park and its biodiversity.

Secondly, the changing situation and attitudes amongst the social actors and main institutions has the potential to result in support for the proper development of ecotourism, where the tourism development takes place, and is limited by the overall objectives for conservation of biodiversity resources. The degree of engagement and motivation of the present administration, the scientific base which supplies the knowledge of the marine and coastal ecosystems, the existence of a well structured and coherent legal framework and the desire to build a consensus, and the participation of the local stakeholders into decision making, are all important factors in this emerging situation.

Based on the strengths, the participants developed, at the end of the workshop, an informal vision to identify key features and achievements for maintaining and strengthening the integrity of the Tayrona Nature National Park in the future. The elements of this vision were as follow:

- the nature and cultural patrimony of the Tayrona National Park is kept in a good state of conservation,
- all relevant institutions support the Tayrona National Park and coordinate their activities keeping in mind the protection of the park,
- ecotourism is used as a tool to support conservation within the framework of the objectives of the Tayrona National Park,
- high quality services are provided to visitors who respect the conservation objectives of the Tayrona National Park,
- the local population participate in conservation and the benefits that come from ecotourism in the Tayrona National Park.

However in order to achieve the adequate level of management of tourism in a way that is compatible with the conservation of the biological diversity in the park, the priority actions have been identified in the following areas:

- Conservation and protection
- Environmental education, capacity-building, dissemination and awareness-raising
- Information and monitoring systems
- Local participation and benefits

- Policies and coordination
- Management and administration
- Planning
- Qualification of services.

Recommendations

Conservation and protection

The fundamental objective in the creation and management of protected areas is the conservation and protection of their biological diversity, cultural values and heritage. This objective should underpin the development of all activities in protected areas, including when undertaking projects and activities related to ecotourism. The following recommendations are made in relation to this overall objective:

Recommendations:	Stakeholders
<ul style="list-style-type: none"> • to promote a change in behaviour by social actors and institutions through the awareness raising to the value of biodiversity and cultural riches of PNNT 	Several levels of the administration from the central to the local level; legislative, executive and judicial powers; local communities (civil society)
<ul style="list-style-type: none"> • to achieve greater legal support for policies of conservation and protection of the biodiversity and cultural riches of PNNT 	
<ul style="list-style-type: none"> • to achieve better political support at the highest levels of the State for the UAESPNN's conservation mission 	
<ul style="list-style-type: none"> • to increase the participation of local communities, people and private enterprises in the supply of ecotourism services, so as to free up the staff of the park to have more time for conservation and protection duties 	UAESPNN, Advisory Committee of the Park

Environmental Education and Capacity-Building

Environmental education and capacity-building are an important component of any strategy directed towards the conservation of the biological diversity. In particular, when dealing with economic activities, such as the development of ecotourism in protected areas, education and capacity-building are important in ensuring that the various stakeholders understand the objectives of protected areas, and the ways in which they are managed, as part of efforts to manage economic activities, including tourism, so that they will not have a negative effect on the objectives of conservation. The following recommendations are proposed in the field of environmental education and capacity-building:

Recommendations	Stakeholders
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<ul style="list-style-type: none"> to design and run an awareness-raising programme directed at officials of the territorial and industrial entities that are involved in the development of the tourism activities, so as to provide them with the necessary knowledge about the objectives of protection of the park, and an understanding of its natural and cultural values, as well as of the sustainable management of the tourism activities 	Regional Government, mayoralty, UAESPNN
<ul style="list-style-type: none"> to elaborate and put into practice programmes of environmental education for schools, in order to provide students with knowledge about the objectives of protection of the park and to encourage behaviours and habits of respect for the park, by raising their understanding of the park's environment and cultural riches, and their proper use 	UAESPNN, Secretariat of Departmental and Municipal Education
<ul style="list-style-type: none"> to design and make available to the park officials a programme of qualifications in themes including: interpretation, guiding, impacts, regulations, evaluation and monitoring 	UAESPNN
<ul style="list-style-type: none"> to elaborate and put into practice an environmental interpretation programme for the visitors of the park, through the construction of two information centres, in Cañaveral and Palangana, the elaboration and dissemination of publications and the use of other tools for awareness-raising of users and encouragement of behaviours and habits of respect, and an understanding of the park's environment and cultural riches, and their proper use 	UAESPNN
<ul style="list-style-type: none"> to continue, evaluate and expand the capacity-building programme for service suppliers and ecotourism organisations in the park in order to improve their quality levels and to ensure implementation of sustainable management practices in their tourism activities 	UAESPNN
<ul style="list-style-type: none"> to promote research in PNNT in agreement with the universities and institutes, taking into account the need: <ul style="list-style-type: none"> to make available and disseminate to all relevant stakeholders, the knowledge acquired, so that it can be applied in the management of the park, and to involve the participation of park officials in research and monitoring activities 	universities, research institutes, UAESPNN
<ul style="list-style-type: none"> to promote the establishment of a park ranger career stream, to optimise the work of park rangers in the exercise of their duties, including in all aspects related to the biological conservation and the sustainable management of ecotourism 	Education Ministry, UAESPNN
<ul style="list-style-type: none"> to form groups of local volunteers, especially young people and children, involving them in support activities of the park while, at the same time, raising their awareness 	UAESPNN and ecological NGO's

<ul style="list-style-type: none"> to promote inclusion of environmental issues and the sustainable management of the natural resources in the academic curriculum related with tourism 	Education Ministry, universities, Ministry of Environment
<ul style="list-style-type: none"> to promote the park as object of study in the context of the Institutional Educational Project and of the Schools Environmental Projects undertaken by the high schools of Santa Marta 	high schools, UAESPNN
<ul style="list-style-type: none"> to incorporate the indigenous vision of the park in the park's plans and activities for education and environmental interpretation 	Indigenous groups, UAESPNN

Information System and Monitoring

A large amount of information is needed to support the conservation of the biological diversity and the sustainable management of ecotourism. Gathering this information demands continuous and efficient tools for monitoring as well as for storage, classification and assessment of information, so that it can be applied effectively. The following recommendations are made in relation to information systems and monitoring:

Recommendations	Stakeholders
<ul style="list-style-type: none"> to design and implement a basic capacity-building programme of monitoring and information management for park officials and for the staff of other organisations involved in monitoring and research activities 	INVEMAR, DIMAR universities UAESPNN
<ul style="list-style-type: none"> to promote and sign agreements with the universities for the undertaking of specialised monitoring programmes as well as to generate basic knowledge and information concerning biodiversity in PNNT 	Alexander Von Humboldt Institute, INVEMAR, universities, UAESPNN
<ul style="list-style-type: none"> to promote the design and implementation of a programme to monitor social-cultural aspects in the park 	universities, UAESPNN
<ul style="list-style-type: none"> to acquire computer equipment and updated computer software that will allow improvements in the management and use of the information gained from monitoring 	UAESPNN
<ul style="list-style-type: none"> to design a programme of specific monitoring plans in order to gather information covering all natural and social-cultural aspects in relation to the impacts of ecotourism activities 	universities, research institutes, UAESPNN
<ul style="list-style-type: none"> to promote identification of historic-cultural and biological information that may be used as a baseline for the monitoring of the resources of the park 	UAESPNN
<ul style="list-style-type: none"> to design and implement an information system, and to systematise the information available, so as to facilitate its use for decision making in the park 	IDEAM, UAESPNN
<ul style="list-style-type: none"> to improve the basic cartography and mapping of specific topics in relation to the objectives and management of the park, building on the existing regional and national cartographic resources 	IDEAM; Ministry of Environment, UAESPNN, IGAC

Participation and Local Benefits

The local communities in and around the park should be centrally involved in decisions taken for the development of the ecotourism in the Tayrona National Park. One of the objectives for any ecotourism activities in the park should be the generation of benefits for these local communities, and their distribution throughout these communities. The following recommendations are made in relation to participation of and distribution of benefits amongst communities within the influence zone of the park:

Recommendations	Stakeholders
<ul style="list-style-type: none"> to ensure that agreements for ecotourism activities within PNNT include agreements that qualified as well as unqualified local people will benefit from the job opportunities created by ecotourism 	Regional Government, Mayoralty, UAESPNN
<ul style="list-style-type: none"> to promote the introduction of support policies for private initiatives related to ecotourism, for example, through tax incentives as well as direct help 	Mayoralty, District Council
<ul style="list-style-type: none"> to promote more proactive and effective action by those organisations which have the responsibility to control illegal activities within the park, especially in relation to those that may occur in relation to ecotourism 	regional attorney general's office and other control entities
<ul style="list-style-type: none"> to revitalise the role of the surveillance and evaluation committee, so as to ensure transparency in the process of development of ecotourism 	all committee members
<ul style="list-style-type: none"> to stimulate the participation of the population and of new associate enterprises in the supply of tourism services in the park 	Regional Government, Mayoralty, UAESPNN,
<ul style="list-style-type: none"> to strengthen the process for indigenous participation in decision-making, and in particular to ensure that their interests are taken into account in the development of ecotourism, and that they gain benefits from ecotourism 	Assembly of Territorial Town Councils, UAESPNN, OGT
<ul style="list-style-type: none"> to promote the undertaking of feasibility studies to examine the possible benefits of ecotourism and related services 	universities, research institutes, National Environmental System

Policies and Coordination

If any development of tourism takes place in the park, it must be consistent with the park's objective for conservation of biological and cultural diversity, as well as with national-level policies on tourism and with policies and best practices for ecotourism.

It is therefore essential for there to be effective inter-institutional coordination for the management and administration of the protected area, based on the roles, legal basis and areas of authority of the various institutions. The participation of stakeholders, at local, regional and national levels, with interests in the area, is also important.

Recommendations	Stakeholders
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<ul style="list-style-type: none"> to define the national and institutional policy for the parks in relation to ecotourism, recognising that this is a specialised part of tourism 	Ministry for Development, UAESPNN
<ul style="list-style-type: none"> to implement the elements of law 300 (1996) that are related to tourism 	Ministry for Development, UAESPNN
<ul style="list-style-type: none"> to improve coordination (and to develop a strategy for this) among the various entities involved in ecotourism, as a mechanism to improve management and control of ecotourism activities and development 	All levels of administration involved, Ministry of Environment
<ul style="list-style-type: none"> to strengthen marketing policy and tourism promotion in relation to ecotourism, including identification of key market segments for targeting of ecotourism promotion 	Ministry for Development, UAESPNN
<ul style="list-style-type: none"> to develop and implement local and regional level proposals for education and awareness-raising of managers and decision makers in relation to tourism and ecotourism 	Regional Government, Mayoralty, CORPAMAG, UAESPNN,
<ul style="list-style-type: none"> to clarify the powers and areas of responsibility of all involved entities, and to achieve a better inter-institutional coordination resulting in more effective actions 	Advice Committee

Management and Administration

The management of the Tayrona National Park needs to be strengthened in order to be able to control and manage the development of ecotourism effectively, including through working with the various other institutions that may have roles in the development of ecotourism and the monitoring and control of its potential impacts. As well as addressing the effects of ecotourism on biodiversity and cultural heritage, the park authorities will also need to resolve social, technical and financial conflicts that may arise in association with tourism activities. The following recommendations are made concerning the management and administration of the park:

Recommendations	Stakeholders
<ul style="list-style-type: none"> to strengthen the powers and resources of the management system, in order to exert an effective control of ecotourism activities 	UAESPNN
<ul style="list-style-type: none"> to elaborate a procedures guide for officials, in which the actions to be taken in different situations and for monitoring are described 	UAESPNN
<ul style="list-style-type: none"> to develop the capacity of the UAESPNN for surveillance and control of licenses and permits, prior to their approval and issuance 	UAESPNN,
<ul style="list-style-type: none"> to provide appropriate and flexible judicial tools to clarify land tenancy and ownership within PNNT 	UAESPNN, judicial power
<ul style="list-style-type: none"> to negotiate for financial resources from various parties, to create a fund with which to purchase land from private landowners in the park 	Regional Government, Mayoralty, UAESPNN, Ministry of Environment
<ul style="list-style-type: none"> to prepare a “portfolio of projects” including the associations of service suppliers, to realise ecotourism programmes 	Advice Committee, UAESPNN

<ul style="list-style-type: none"> to study the viability for the creation and implementation of a proposal for the establishment of a Promoter of Ecotourism Services for the park 	Ministry for Development, Ministry of Environment UAESPNN, Regional Government
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Planning

Planning and management of ecotourism within the park is a dynamic process that needs to anticipate and respond to changes in an adaptive manner. Planning to ecotourism in the park should start from the park's overall objective, and should aim to prevent impacts on biodiversity. It should also involve creating awareness amongst and agreements with key institutions and groups of stakeholders to undertake appropriate actions to prevent or minimise problems identified in relation to tourism activities within and around the park. The following recommendations are made in relation to planning:

Recommendations	Stakeholders
<ul style="list-style-type: none"> to elaborate and agree a Management Plan for the park with the participation of the various stakeholders 	UAESPNN
<ul style="list-style-type: none"> to establish guidelines for evaluation of proposals for ecotourism development in the protected area 	Development Ministry, UAESPNN
<ul style="list-style-type: none"> to negotiate with the different levels of administration so as to ensure the recognition of the conservation objectives of the park within the regional master plan 	Regional Government, Mayoralty, UAESPNN

Quality of Services

The Tayrona National Park has a high degree of recognition at national level as a tourism destination, and it is important that the park should achieve high standards of quality in the infrastructure and services that it provides where tourism is permitted. To promote high standards, the park management should develop a strategy to bring together not only those who supply a service, but also those external agents - for example, guides from outside the park - who also may influence the image of the park and the experience of visitors to it. The following recommendations are made in relation to quality of services:

Recommendations	Stakeholders
<ul style="list-style-type: none"> to set standards for the quality of the services that are provided in the park 	Ministry for Development (regulation and security), UAESPNN
<ul style="list-style-type: none"> to implement and regulate ecotourism activities undertaken by service suppliers from Santa Marta, in the protected area 	Mayoralty, UAESPNN
<ul style="list-style-type: none"> to consolidate the mechanisms for the fulfilment of agreements with the service suppliers 	UAESPNN and the service suppliers association
<ul style="list-style-type: none"> to evaluate in qualitative terms the experience of the private participation in the ecotourism services in the Cañaveral sector 	UAESPNN and concessionaires

<ul style="list-style-type: none">• to raise the level of quality of the ecotourism service offer in Arrecifes and Concha Bay sectors	UAESPNN and concessionaires
<ul style="list-style-type: none">• to implement a programme to asses visitor satisfaction with the quality of the services provided within the park	UAESPNN

Evaluation of the Draft CBD Guidelines on Biodiversity and Tourism

An evaluation of the draft guidelines on tourism and biodiversity, and their application to this case study of PNNT, was carried out by the participants. The participants reported that they found that:

- the guidelines are very helpful in providing a framework for coherent, structured and rapid analysis of the management of tourism and biodiversity in PNNT;
- the guidelines facilitate planning of solutions - strategies and actions - and selection of priorities;
- the guidelines provide good checklists of key issues, and serve as a reference standard.

Participants made suggestions for improving the clarity of the text and layout of the guidelines, and for provision of guidance on priority setting. Specific suggestions were also made for:

- strengthening the links between Decision Making and Annex 1 on the Notification Process and information requirements for notification;
- incorporating socio-economic aspects and changes more fully in relation to Adaptive Management;
- emphasising the role of parks authorities within the institutional framework for management of tourism and biodiversity, and the need to ensure that they receive the necessary resources and support to perform their role effectively;
- encouraging use of mapping techniques to assist interpretation and presentation of information gathered through application of the guidelines;
- promoting awareness-raising targeted at visitors, to explain potential impacts of tourism and ways of avoiding or minimising such impacts.

References

Cano, Marcela and Marta Hernández (2001): El Ordenamiento Ecoturístico del Parque Nacional Natural Tayrona como Estrategia para la Resolución de Conflictos de Uso y Ocupación, mimeo

Ceballos-Lascurain, Héctor (2001): Informe sobre el Parque Natural Nacional de Tayrona, Resumen Ejecutivo, mimeo

Rico Baez, Eduardo (2000): Plan Integral para el Ordenamiento del Ecoturismo en el Parque Nacional Natural Tayrona, MMA, UAESPNN, Santa Marta

UNEP/CBD/WS-Tourism/4: Report of the Workshop on Biological Diversity and Tourism, 10 July 2001 (download at www.biodiv.org)

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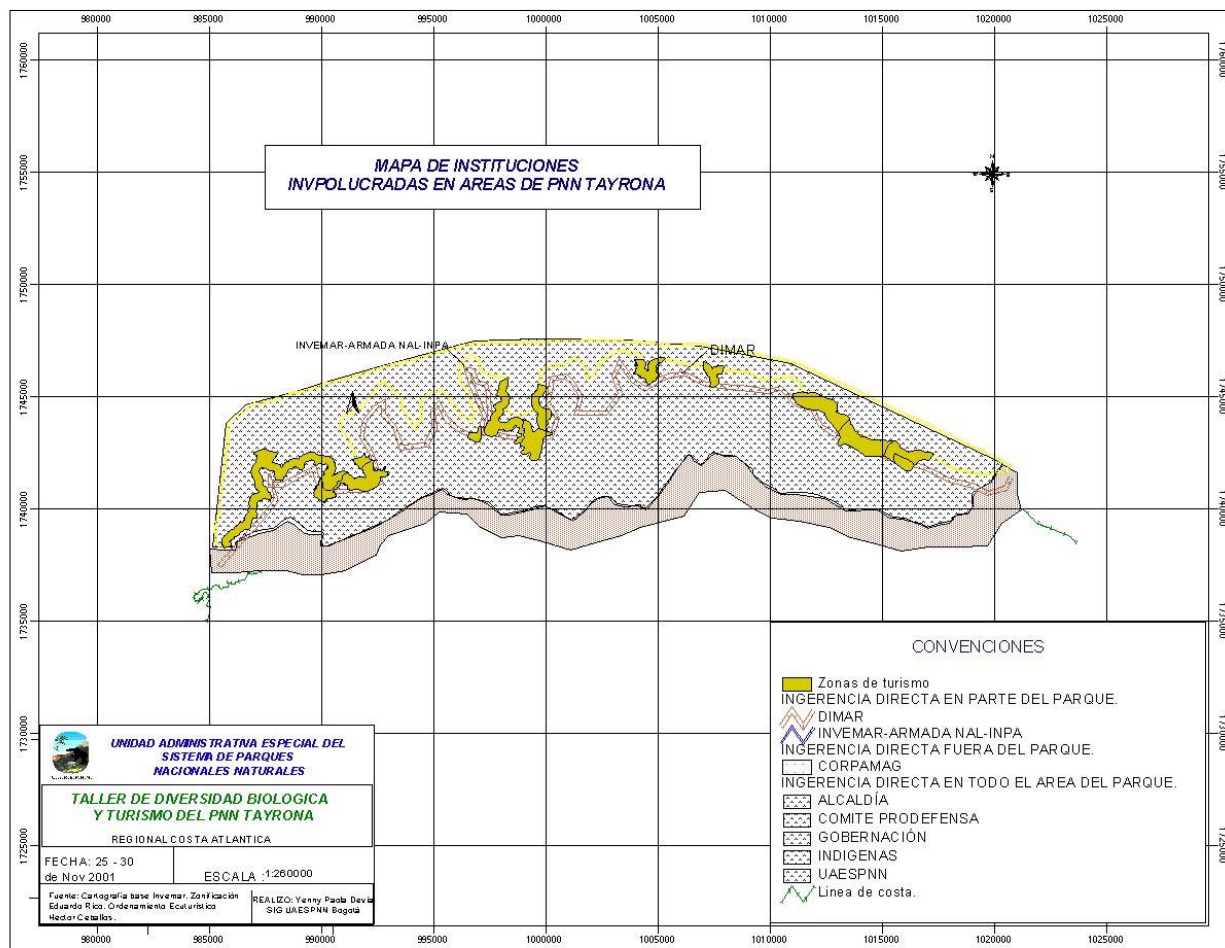
Annex: Maps elaborated during the Workshop

Map A1 on Institutions

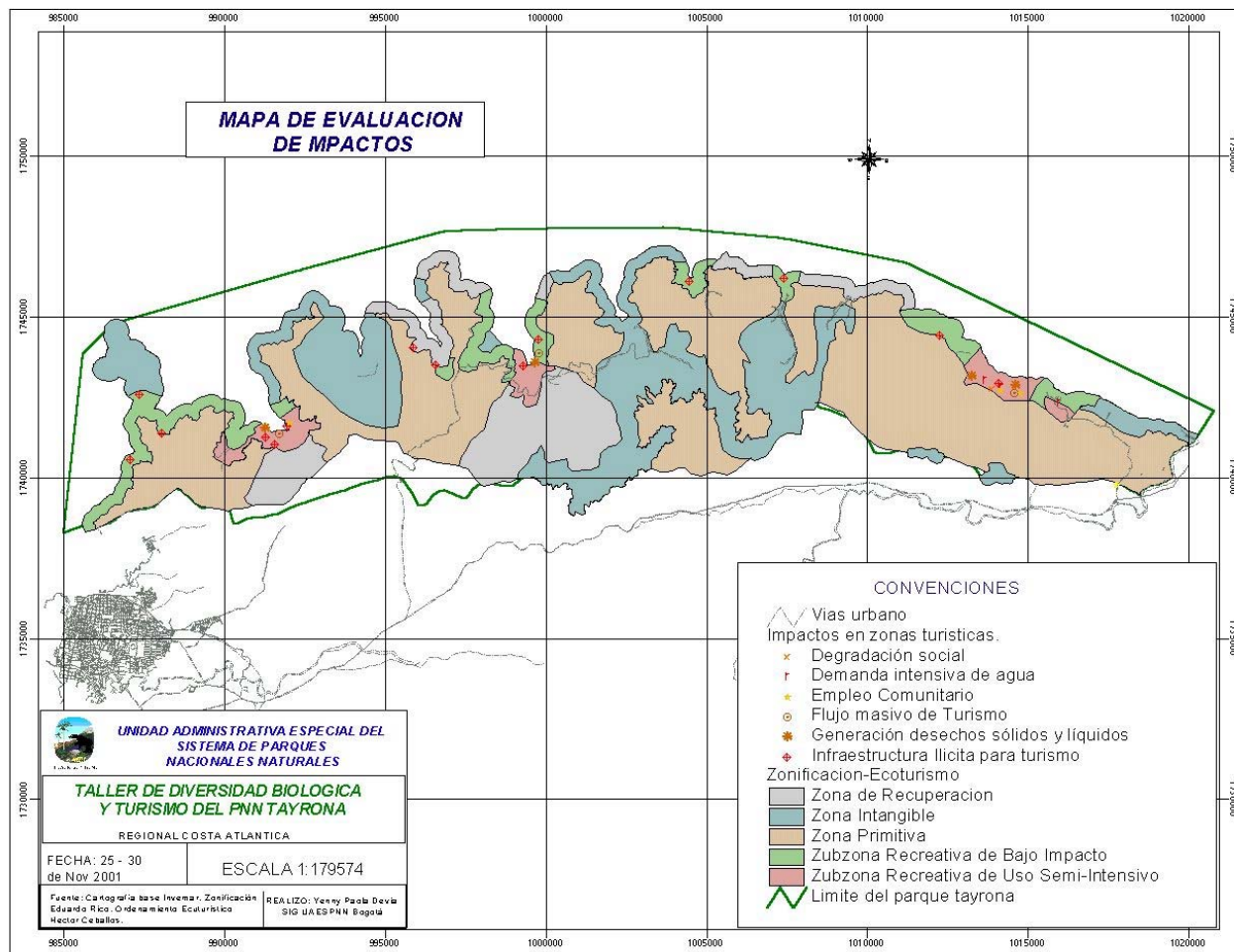
Map A2 on Impacts

Map A3 on Monitoring

Map A1 on Institutions



Map A2 on Impacts



Map A3 on Monitoring

