

UNEP/UNDP/GEF/BPSP

**INTEGRATING BIODIVERSITY INTO THE TOURISM
SECTOR**

PERU COUNTRY CASE STUDY

by

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1. OVERVIEW OF PRESENT STATE OF TORISM DEVELOPMENT IN PERU

1.1. RELATIVE IMPORTANCE IN THE PERUVIAN ECONOMY

When considering the Peruvian economy's different sectors, those which generate foreign income should be given a very high priority; among these are the exports of copper and fisheries, and of course, tourism.

Tourism is considered to be one of the most important economic activities in Peru, and is the country's second largest source of foreign income (one billion dollars in 1999 with a growth trend). It represents 13% of the number of jobs in the services area and is providing 43,000 new jobs per year. 100,000 people are employed directly, and 400,000 indirectly, in tourism. This sector generates one hundred million US dollars annually for the State by means of the General Sales Tax (IGV), which is 18%. This tax isn't only for tourist activity, is applied for a general services.

The monetary inflation in the year 1990 was 7,481.7%. Annual inflation had been cut to 6.46% by the year 1997, in which year the GNP rose by 7.4%.

Foreign income from tourism, compared with exports, grew from 6.2% in 1985 to 11.9% in 1997

It is hoped, using a conservative, if not pessimistic estimate that Peru will receive 1 300 000 tourists in the year 2005, in concordance with the Master Plan, which envisages an annual increment of 60 000 tourists. The average length of time a tourist spends in Peru is 13 days, during which time he spends an average of US\$1684, not including fares. 58% of tourists are aged between 25 and 34 years.

Ecotourism (tourism with an ecological emphasis) should be considered as one of the tourism sectors which is causing the growth of tourism in Peru.

1.2 RELATIVE PRIORITY IN NATIONAL PLANNING POLICY

It is known that tourism contributes to decentralization, to the preservation of natural and cultural heritage, and that it helps to raise the standard of living of the population. It generates different jobs, directly and indirectly and can thus be considered as one of the most dynamic activities within the Peruvian economy; this constitutes the reason for its being included in the national planning policy.

Some of the policies may be outlined as follows:

- International tourism is aided by means of "extended public holidays"; this refers to the transfer of a public holiday which falls

mid week to a day adjacent to the weekend, thus giving Peruvians the chance to travel and get to know their own country.

- Highways have been improved or repaired, including the Panamerican highway, from north to south, and the Arequipa, Moquegua, Desaguadero (Puno) route. A total of 7000 km of roads have been improved, thus reducing traveling times and opening up new possibilities in commerce and tourism.
- The Peruvian government is anxious to improve and expand tourism activities and with support from different institutions like the World Bank, has access to studies compiled by consultants such as the Blackstone Corporation and Pacific Consultants International.

Despite problems arising from the change of government in Peru, tourism has grown relative to last year. 230,292 tourists visited Peru last year during the period of October to December. This year, there have been 786,710, and an estimated additional 253,782 are expected before the year ends. In 1995, there were 540,755 foreign visitors to Peru; for the year 2000, 1,000,000 visitors had arrived before the end of September.

1.3 THE INSTITUTIONAL STRUCTURE OF TOURISM IN GOVERNMENT POLICY AND PLANNING

Peru has these institutions which are relevant to tourism, in the following order of importance:

- a) The Ministry of Tourism and International Trade (MITINCI)
- b) The Ministry of the Presidency (El Ministerio de la Presidencia): Commission on the Promotion of Peru (PROMPERU)
- c) The Ministry of Transport, Communications, Housing and Building (Ministerio de Transportes, Comunicaciones, Vivienda y Construcción).
- d) The Ministry of Education (Ministerio de Educacion): The National Institute of Culture (Instituto Nacional de Cultura - INC)
- e) The Ministry of Agriculture (Ministerio de Agricultura): The National Institute of Natural Resources (INRENA).
- f) The Ministry of Home Affairs (Ministerio del Interior): The Tourism Police (POLTUR).
- g) The National Council for the Environment (CONAM)

The government agency responsible for tourism is the Vice-ministry of Tourism in MITINCI, which is in charge of the development of tourism activities and modifications thereof, as well as the promotion of tourism, together with the promotion of investment in Peru comes under the responsibility of PROMPERU, which is part of the Ministry of the

Presidency. The development of infrastructure for tourism is the responsibility of the Ministry of the Presidency, while regional development and infrastructure planning come under Ministry of Transport, Communications, Housing and Building.

Archaeological sites are managed by the National Institute of Culture, a part of the Ministry of Education, while natural areas such as National Parks, Reserves and Sanctuaries, and the National Institute of Natural Resources are under the administration of a dependency of the Ministry of Agriculture. The Tourism Police Force belongs to the Ministry of Home Affairs. The current administrative structure aside tourism is by nature a multi-sectoral activity; it is therefore essential to have coordination among related tourism entities in order to succeed in the development of tourism. Presently coordination is not efficient. The direct coordination is between PromPerú and MITINCI, and on specific subjects between INC and INRENA.

The National Council of the Environment (CONAM) has worked with the Vice-ministry of Tourism in the environmental area.

1.4 PRINCIPAL TYPES OF TOURISM

Visitation to Peru consists of approximately 45% cultural tourism, 10% nature tourism and 5% health and business. About 40% percent of tourists mix cultural and natural tourism.

Conventional Tourism

- I. Beaches: The North of Peru has areas which are already renowned for summer recreation.

Examples are Máncora and Punta Sal, where water sports such as spearfishing, surfing and other activities are enjoyed.

- II. Gastronomy: Peru produces a variety of foodstuffs, such as fruit and cereals, which have made the North, Center and South of the country famous for their different local dishes. A typical northern dish, for example, is “chifles”, slices of fried banana served with dried meat. A dish from the Center is the “Causa rellena”, two layers of mashed potato between which there is chicken seasoned with a variety of spices. The South offers “tarwi” a dish made from a species of bean called tarwi, mixed with milk, and served with potatoes.

Nature-based Tourism

In the context of Peru, where there are unique resources, habitats and ecological systems, which are often very frail and of value to the world, the concept of ecotourism should be applied in a very specific way.

Varying levels of susceptibility of resources, appropriate levels of infrastructure and the kinds of problems generally associated with different types of resources should be taken into account.

Nature-based tourism is a fundamentally dynamic activity varying from place to place according to the kind of resources being employed.

Peru is one of those countries whose geography offers possibilities for different kinds of adventure tourism, such as hiking, canoeing, climbing mountains over 6000m high, as well as birdwatching, photography, ethnobotany, scientific tourism, to mention but a few.

A good example of nature-based tourism can be found in the Manu National Park, which has been the target of study for its flora and fauna which exemplifies Peru's biodiversity.

Manu is also a favorite location for birdwatchers where over 1,000 of Peru's 1,752 birds species have been observed. In Tumbes (Northern Peru), the mangrove swamps are the habitat of a great variety of crustaceans, snails, fish and aquatic plants. They are also home to the American crocodile, an endangered species. Snake-lovers also enjoy this place!

Cultural Tourism

Tourism based on cultural resources is the type of tourism which for many years has been characteristic of Peru.

Guided tours of the center of Lima focus on historic buildings dating from the 17th, 18th and 19th centuries. Cusco is a place where Inca and Spanish styles of architecture were mixed; materials found are stone and adobe. Machu Picchu is identified with Peru all over the world. The archaeological remains provide a perfect example of Inca architecture and planning since Machu Picchu was never destroyed and looted by the Spaniards. Near Trujillo, in the department of La Libertad, there are the ruins of Chan Chan, an enormous city built from adobe and which was inhabited by people of the Mochica and Chimu cultures.

Native folklore is another attraction. During the past few years, advances in the study of natural medicines make Peru seem like a consulting and experimental center where traditional knowledge of natural medicine can be tapped. Peru also has a rich diversity of dances, costumes, celebrations and other traditions.

As regards native folklore, different dances are found in regions like the Costa, where they dance the "marinera". In the Sierra, Puno is considered the folklore capital of America. There are more than 100 different dances. Carnivals and religious festivities are part of the most important activities in the year.

Taquile Island - Puno is an unique experience in the country. It has a population of 330 families. Today they show with pride their traditions and culture.

1.5 PARTICIPATION AND DEGREE OF INTERACTION OF DIFFERENT SECTORS AND STAKEHOLDERS IN THE TOURISM PROCESS:

Public institutions

- Vice Ministry of Tourism
- Ministry of the Presidency through PROMPERU
- Vice Ministry of Urban Development
- Vice Ministry of Transport
- National Institute of Culture
- Institute of Natural Resources

Private institutions:

- Commercial banking, through loans that they grant for the construction of new hotels or lodging places.
- Cámara Nacional de Turismo - CANATUR (National Chamber of tourism), functions as a national level “chamber of commerce” representing the interests of the tourist industry, including members such as the airlines, hotels, travel agents, guides, operators, etc. The agency carries out activities such as the drafting of legislation to support the industry, lobbying with government, applied research, and other such tasks.
- La Asociación Peruana de Turismo de Aventura y Ecoturismo – APTAE (The Peruvian Association of Adventure Tourism and Ecotourism). Is the umbrella association through which Peru’s main adventure travel and ecotourism operators are articulating the private sector interest to various arms of government. Among others, they have invoked the privatizing of various ecotourism destinations (including, for example, management of the Inca trail and Machu Picchu). Its members are very vocal about environmental degradation occurring in the protected areas, on which much of their tourism is based, and are critical of the fragmented institutional structure currently involved in tourism management.
- PERUVIAN Tour Operator Association
- Association of Travel Agencies
- Association of Tourist Guides
- Association of Hotels and Restaurants.
- International Donor Community activities.
 - World Bank
 - Inter-American Development Bank (IADB)
- NGOs in Peru play significant roles.

The following institutions are presently working in Peru:

AECI - Agencia Española de Cooperación Internacional (Spanish Agency of International Cooperation) is dedicating funds to the reconstruction of colonial temples and offering training to the residents so that in the future they may reconstruct their own churches.

JICA (Japan International Corporation Agency) who take charge of making studies on the policies and national strategies to be applied in the tourism sector.

AEDES - Asociación Especializada para el Desarrollo Sostenible (Specialized Association for Sustainable Development) that implements

a proposal of the civil society's direct participation and their authorities in the planning of the tourist activity, developing activities such as environmental development and with a focus and practical approach to conservation of the environment and in particular of the biological diversity.

At present, there are many tour operators with businesses in Peru, most of whom specialize in trips to particular destination, or specialize in various types of travel, such Amazon cruises, mountain trekking or jungle expeditions.

Cusco-Based Operators: Cusco has long been the major tourism center and primary destination for tourists to Peru, as the capital of the Inca Empire and starting point for travel to Machu Picchu . Over the past decade, it has benefited from the development of the ecotourism industry, as Manu National Park and Tambopata have become increasingly popular destinations.

Following are the main tour operators located in Cusco:

- a) Aventuras Ecológicas Manu, a tour company first established in 1980 and reactivated in 1992 in response to the rapidly growing market for ecotourism in Peru. The firm runs overland and fly-in tours into the Manu area, utilizing campsite accommodations within the "Reserved Zone" established for such purposes adjacent to the park itself.
- b) Another well-known operation, Manu Nature Tours was established in 1985, specialized also in travel to Manu National Park.

Iquitos: Some of the earliest jungle trips were established in Iquitos, where two operators have been offering trips for over 25 years. Explorama Tours has been operating out of Iquitos for over 30 years, and has developed private reserves and three facilities along the Amazon and Napo Rivers, in addition to a scientific research facility. Explorama's tourism operations are helping to preserve the environment, with 250,000 acres of forest presently protected within the private reserve. Explorama has also donated land for, and developed, the Amazon Center for Environment Education and Research (ACEER) within the 250,000 Amazon Biosphere Reserve. The ACEER Foundation was established in 1991 to provide accommodations and research facilities for scientists, rainforest workshop participants and nature tourists. Amazon Tours and Cruises Ltd. Specializes in river cruises, with six ships geared to different types of experiences.

Tambopata (Madre de Dios): Cuzco Amazonico is a lodge and privately maintained Reserve of 10,000 ha in the Madre de Dios region in southern Amazonian Peru. Tourism revenues have been used to support the facilities and protect the reserve, while partially being used to defray the expenses of biologists working at the reserve. Rainforest Expeditions is a tour company operating out of Lima which specializes in trips to the rainforest of southeastern Peru and northwestern Bolivia. The company was established in the late 1980s, as an extension of the owner's construction of the Tambopata Research Center (TRC), which was developed at the Tambopata-Candamo Reserve Zone for research and ecotourism purposes.

Local communities:

- The cultural clubs of the different departments which are devoted to show through pamphlets or press bulletins the attractive places which exist in their areas.
- Municipality Council Members of tourism of the diverse municipalities.

Coordinated work has begun through consultative committees, joined by public and private institutions local communities in several areas project are being elaborated according to the National Plan of Tourist conscience, achieving the direct participation of the population. Coordination between these institutions and local communities is in charge of MITINCI.

It is a process that was initiated in the year 1999 and it is hoped to be solidly established by 2005.

1.6 EDUCATION AND TRAINING IN TOURISM

In the primary and secondary schools, there are two areas that are somehow linked with tourism:

The first one is denominated Personal and Social area. The first objective is to contribute to the student's interaction with the natural and social environment. In this area visits are organized with the purpose of having students identify and value the local tourist attractions.

The second area is denominated Science and Environment: the objective is the conservation of human health in harmony with the environment. Another objective is to value nature conservation and the development of life in the planet.

In the Institutes:

In Peru the most important training centre is CENFOTUR (Centro de Formación Turística), which through agreements with other schools decentralizes its work offering specialized courses at all the levels of tourism. The Escuela Superior de Administración y Negocios-ESAN (Superior School of Business and Management), which is a private institute, has students currently carrying out a marketing study for Peru's tourism industry.

Universities:

In actuality there are programs for graduates in tourism being established in many of the universities of the country. We have 11 universities in Peru, in Lima are San Ignacio de Loyola, Ricardo Palma, San Marcos, San Martin de Porras and La Molina, which offer ecotourism as a specialty.

1.7 COMPLIANCE WITH EXISTING INTERNATIONAL GUIDELINES OF BEST PRACTICE FOR SUSTAINABLE TOURISM

In Peru sustainable tourism is given nine high-priority action areas which are:

- Evaluation of the regulatory, economic and voluntary structure to achieve sustainable tourism.
- Evaluation of the social, economic, cultural and environmental consequences of tourism operation.
- Training, education and public awareness.
- Planning for sustainable development of tourism.
- Means for an exchange of information, knowledge and technology that are related with sustainable tourism among developed and developing countries.
- To facilitate the participation of all sectors of society.
- Design of new tourist products centred on sustainability.
- Measurement of progress required to reach sustainable development.
- Institution building as regards creating associations for sustainable development.

Institutions that support in attaining this aim are PROMPERU, CONAM, INRENA and some municipalities

1.8 BRIEF DESCRIPTION OF MAIN ECOTOURISM ATTRACTIONS OF YOUR COUNTRY

Peru offers enormous opportunities in virtually all aspects of ecotourism, as summarized below:

1. Nature viewing, photography and bird watching: Peru is divided into three ecological zones – the Coast, the Sierra (Andes mountains) and the Selva (inland rainforest). Within these zones are 101 live zones and transitions zones, providing habitats that have produced one of the greatest variations in flora and fauna on earth. The country is the second most diverse in the world in terms of bird species (1,752, just under Colombia), and third most diverse in mammals in South America, of which the jaguar, yellow-tailed woolly monkey, vicuna and giant river otter are among the more outstanding examples. While the Amazon is the “main draw” for many nature tourists (Iquitos in the north and Tambopata in the south), visitors are also able to experience mountain, desert and marine environments during a trip to Peru.
2. Heritage and Archaeology: Peru has some of the most extensive and fascinating heritage resources of any country in the world. The Cusco region has been referred to as “the archaeological capital of the Americas”, offering a wide range of resources within a beautiful mountain setting. Virtually all areas of the country offer a range of heritage attractions, ranging from the Nazca Lines in the south to the Tomb of Sipan, one of over a hundred such sites in the north. Newly discovered Inca and pre-Inca sites even more extensive than Machu Picchu are currently being studied, and will only serve to add to Peru’s strong attraction base in this area.

3. **Trekking and Mountain Climbing:** Areas such as Huascarán National Park provide world class opportunities for adventure and mountain-oriented tourism, with more than 50 peaks at over 19,000 feet, Peru's highest peak – Huascarán, and a system of valleys that provide easy approaches. Trekking opportunities exist throughout the Andean Region, including the fabled Inca Trail – an ancient granite-paved path through dense cloud forest, which includes views of the snow capped peaks of the Vilcabamba, the Urubamba gorge, a range of ecosystems and spectacular Inca ruins, including Machu Picchu.
4. **River Trips:** Peru has ample resources to accommodate the rapidly growing interest in river sports. Cotahuasi and Colca Canyons are among the deepest canyons in the world, and largely untouched by tourism to date. The Urubamba River offers exciting river trips through the Andes and the Sacred Valley of the Incas. Other river trips are being offered from Lake Titicaca, through Class 5 rapids and exotic habitats of the Tambopata region.
5. **Overlanding and Exploration:** Overland road trips are able to provide visitors with the opportunity to explore the wide diversity of Peru's culture, history and environment. Although the highway system is not well-developed, except along the coast, and geography restricts travel to a large degree, many expeditions through the interior are possible. In addition, a wide variety of exploration projects are on-going, related to archaeological research and environmental studies, many of which can be participated in by visiting scientists, students and other visitors to the country and new discoveries are being made every year. Such opportunities to actually participate in such scientific exploration are offered in few locales around the world.
6. **Coastal marine activities:** Although Peru lacks the white sand beaches and luxurious coastal vegetation that make "sun-sand-sea" destinations popular for the mass tourist markets, the coastal deserts of the country have their special appeal and attractions. The Paracas National Reserve offers excellent viewing of marine life and birds, and many heritage sites exist throughout the coastal region, including the Nazca Lines. The north has the extensive mangrove forest at Tumbes, and the beaches of Cabo Blanco, which became famous after Ernest Hemingway came to the area. There are many areas along the coast where beaches exist, and opportunities exist for further development of several sites. At present, these areas are underdeveloped, with little in the way of accommodations or other facilities currently in existence.
7. **Socio-Cultural Resources:** One of Peru's greatest assets is its people, and a large range of different cultures co-exist throughout the country. Cultural experiences range from the museums of Lima, to the Lake dwellers of Titicaca, to the many small indigenous groups of the Amazon, to the many Andean villages, which offer colorful markets, music, native cuisine and many other experiences of interest to travelers.

2. OVERVIEW OF PRESENT STATE OF BIODIVERSITY CONSERVATION AND PLANNING

2.1 RELATIVE PRIORITY IN NATIONAL PLANNING POLICY

The location of Peru in the western part of South America, modeled by the Andean Range and the eastern part of the South Pacific, grants it regional advantages, such as: it is part of the basin of the Pacific, the basin of the Amazon in the tropical region and the basin of the Titicaca, the highest navigable lake in the world.

Also, Peru is located in geographical and oceanic-climatic environments of global incidence, such as the Pacific Circle of the Fire / and the system of ERFEN (phenomenon "El Niño") associated to meteorological-oceanic changes of global dimension.

Peru is considered one of the twelve countries with "megadiversity" in the world and the tropical Andes are considered among the 25 Hotspots of bio-diversity in the world. As regards number of bird species, Peru occupies second place in the world, with 1,752, only behind Colombia. The Peruvian territory is extremely heterogeneous, from several points of view:

- Eco-geography: 84 life zones and 17 transitional, of the 103 found in the world, 16 biogeographical provinces, 4 major geographical zones with several subdivisions.
- Climate: 28 climate types.
- Soil: 7 edaphic regions.
- Hydrology: 3 big hydrographic basins. Pacific, Atlantic and Titicaca, These have 262 hydrographic basins, 1200 lakes and lagoons, thousands of small lagoons and glaciers, coastal wetlands, high Andean and coastal salty wetlands, as well as thousands of hydrothermal springs.
- Biological: Peru is one of the top seven megadiversity countries of the world. The number of total faunal species exceeds 23,500 (described and certified). There are over 1,500 species of fish, and about 2,700 species of non-fish vertebrates (fifth in the world), including 344 mammal species (ninth in the world), 1,752 bird species (second in the world), 298 reptile species (twelfth in the world) and 241 amphibian species (seventh in the world). (Mittermeier et al. 1997).

Peru is also very high in vertebrate endemism. There are 109 endemic bird species (seventh in the world). Of the 221 Endemic Bird Areas (EBAs) of the world (as identified by BirdLife International), Peru occupies third place, with 18. It is also interesting to mention that Peru occupies first place in the world in number of restricted-range bird species, 211, but unfortunately it occupies third place in the world in number of threatened restricted-range bird species, 48. (Stattersfield et al. 1998)

In Peru, there are almost 22,000 identified species of invertebrates (plus many more which remain unidentified). It is first in the world in overall butterfly diversity with 3,532 species, and third in endemics with 350.

- As regards flora, Peru occupies seventh place in the world and the fourth place in South America. There are reportedly more than 19,000 species of superior plants and 1,193 registered species of inferior plants. However, it is probable that the real number of the latter exceeds 3,500 species.

- Genetics (germoplasm): Peru is one of the biggest centers of endemism in the world. Peru is also one of the main centers of useful wild species. In Iquitos (Loreto) 182 species of domestic and wild plants that produce edible fruits have been identified.

More than 4,200 wild species of useful plants are known from Peru. Of these, 48 have multi-purpose use : fibers, fat, waxes, tannins, coloring pigments, toxins, poisons, spices, condiments, essential oils, perfumes, aromas, stimulants, medicines, elastic rubbers, saponines, insecticides, utensils, clothing, construction, etc.

There were more than 155 species of domesticated native plants during the pre-Hispanic period. This makes the country the biggest center of domestic species in the world. Some of these plants have been spread all over the world: potato, corn, sweet potato, bean, pumpkin, tomato among others. The potato has eight domestic species and more than 3,000 varieties. Those are cultivated from sea level up to 4,700 meters, including the Amazon plain.

- Cultural: Peru is a multicultural, intercultural, multiethnic and multilingual nation. Over the years it has developed valuable technologies for the management of their ecosystems.

The following table summarises some of the more interesting quantitative aspects of Peru's megabiodiversity, compared to other countries around the world:

MAMMALS	BIRDS	AMPHIBIANS	REPTILES	HIGHER PLANTS
Brazil 524	Colombia 1770	Colombia 583	Australia 755	Brasil 53000
Indonesia 515	Peru 1752	Brazil 517	Mexico 717	Colombia 48000
China 499	Brazil 1715	Ecuador 402	Colombia 520	Indonesia 37000
Colombia 456	Ecuador 1564	Mexico 284	Indonesia 511	China 28550
Mexico 450	Indonesia 1531	China 274	Brazil 468	Mexico 24000
USA 428	Venezuela 1383	Indonesia 270	India 408	Ecuador 19350
DRC (Zaire) 415	Bolivia 1374	Peru 241	China 387	Peru 19000
India 350	India 1258	India 206	Ecuador 374	USA 18956
Peru 344	China 1244	Venezuela 204	PNG 305	Venezuela 18035
Uganda 315	DRC(Zaire) 1094	PNG 200	Peru 302	PNG 18000

COMPARATIVE QUANTITATIVE ASPECTS OF BIOVIVERSITY IN SELECTED COUNTRIES

Sources: Mittermeier et al. (1997) Megadiversity. Cemex/Conservation International; C.A. MacDonald & Associates (2001) Birding Hotspots Around the World – web site: www.camacdonald.com/birding

The Peruvian government is aware of the fact that biological diversity and its components are strategic resources for the country's development and that they must be taken advantage of according to their economical importance, balancing the conservation needs and the investing and private activity considerations. Besides, the government has recognised the need for ensuring its conservation.

That is why the government has shown its committing position, through the creation of some institutions, such as the Environment National Council, Regional Environment Commission, National Commission of Biological Diversity, as well as technical groups within the main institutions for the formulation of an environmental policy, with participating agreement, control and incentives management mechanisms. There is also the National Environmental Action Plan (Plan Nacional de Acción Ambiental - PNAA), based on the biodiversity potential that establishes the priority so that the scarce resources of the country are efficiently lead to solving the most serious problems, and simultaneously developing the needed capabilities to face other existing problems.

The aim of this planning process is to establish national priorities and actions on biological diversity conservation matters and the sustainable use of its components, in order to integrate them to other plans, programs and sectoral and intersectoral policies formulated by the public sector, and to orient the private sector activities and actions.

The National Strategy of Biological Diversity (ENDB), still in process is considered one of the principal elements adopted for the development of the PNAA, which includes the Regulation of the Biological Diversity Law (to be approved).

The national policy also includes other planning instruments related to biodiversity conservation and the sustainable use of its components, such as environmental and/or natural resources organization plans, hydrographic basin management plans, and regional and local development plans.

2.2 INSTITUTIONAL STRUCTURE OF GOVERNMENT PLANNING AND POLICY FOR BIODIVERSITY

The National Institute of Natural Resources (Instituto Nacional de Recursos Naturales - INRENA) is a decentralized public organism of the Ministry of Agriculture. Its aim is to promote the rational and integrated use of renewable natural resources and ecological guidelines in order to reach sustainable development. Its field of action is the conservation, inventory, assessment and monitoring aspects of ecosystems and species diversity.

The National Council for the Environment (CONAM) is the Peruvian environmental policy managing entity. In addition, it is the intersectoral coordinating instance in the matter of conservation and sustainable use of the biological diversity. It presides over the National Biological Diversity Commission (CONADIB), which is the multisectoral and

interdisciplinary space where representatives of the ministries, the decentralized public organisms, the private sector, the academic sector, non governmental organisms (NGO's) and native population propose, recommend and agree to actions and measures to comply with that disposed on the Biological Diversity Agreement, Peruvian Law and Biological Diversity Regulation, and other measures and actions as the ENDB. The CONADIB provides support and advice to the CONAM.

The principal functions of the CONADIB are:

- 1) To support the planning processes to conserve the biological diversity and the sustainable use of its components.
- 2) To define the national position on the negotiation about international agreements and other issues.
- 3) To organize and promote agreements between the public and private sectors.
- 4) To coordinate and propose orientation on political and technical matters.
- 5) To assist in defining the national policy.
- 6) To provide advise to public sector institutions when needed.

The National Institute of Protection of Competition and Intellectual Property (INDECOPI) coordinates the process for the development of national policies and norms regarding promotion and protection of knowledge, innovations and traditional practices of the local communities linked with biological diversity.

The National Institute of Natural Resources (INRENA), the Peruvian Amazonian Investigation Institute (IIAP), the National Institute of Agrarian Investigation (INIA), the Institute of the Peruvian Sea (IMARPE), the National Council of Science and Technology (CONCYTEC) and the National History Museum of the UNMSM, conform a working group within the CONADIB. The objective of this group is to compile information in order to make an inventory of the national biological diversity and establish organization methods.

Legal and political structure for the conservation and use of the biological diversity

The conservation and use of the biological diversity in the country is mainly based on the Peruvian Political Constitution, 66th to 69th articles, which for the first time include the terms and concepts of biological diversity (art. 68th) and sustainable development (art. 67th). On September 1990 the Environmental Code (CMA. D.L. 613) was proclaimed.

In 1997 several laws and regulations have been provided to contribute to the development of the needed legal structure for the application of the CBD:

- o Law on conservation and sustainable use of biological diversity (Law N° 18839).

- Protected Natural Areas Law (26834), which modernizes the managing system of the ANP (Natural Protected Areas).
- The Structure of Environmental Management (MEGA).
- The Peruvian State commitment to the Convention of Conservation of Migratory Species of Wild Animals.

Other important legal norms are:

- The Agrarian Sector Promoting Law (D.L. 653), which promotes vicuña and guanaco development and protection and promotes the rational use of the wild animal species.
- The Use of Agrarian Area Natural Resources Organic Law, which reaffirms the State responsibility in promoting the preservation, conservation and rational and efficient handling of the natural resources. It regulates some other aspects related to biological diversity.
- Law of the Property, Commercialization and Sanctions Normal Rate for the Vicuñas, Guanacos and Hybrids Species Hunting (D.S. No. 007-76-AG)
- The Fishing General Law (D.L. 25977) and Regulation (D.S. No. 01-94-PE) whose objective is "the responsible use of the hydrobiological resources... and the conservation of the biological diversity" and to promote "sustainable use of the environmental and hydrobiological resources"

Some advances have been made regarding legal regulations related to the rights of intellectual property, access to genetic resources and benefits distributions, which are on formulating and approval processes.

The Political Structure: In the matter of natural resources the Peruvian Government's general policy is oriented to promote the producer's efficiency, profitability and competitiveness, including the rational use of the natural resources and the ecosystems conservation. At the moment the political structure referred to the conservancy and use of the biological diversity is contained on the following Peruvian environmental policy outlines:

- The people's right to a healthy and productive life in harmony with nature and their socio-cultural milieu.
- Development must be oriented in a way that it multiplies the actual generation's capabilities to satisfy their needs, guaranteeing the continuity of the needed resources for the future generations in order to reach sustainable development. Environmental protection must be an important part of the development process and should not be considered in an isolated way.
- The application of preventive criteria so that when there is serious danger or irreversible damage, the lack of an absolute certainty should not be used as a reason to defer the efficient measures adopted to avoid the degradation of the atmosphere.

- The promotion of research and education at all levels.

International Donor Community Activities

The World Bank: In recognition of the fact that “Peru ranks as one of the biologically most important countries in South America, and among the handful of megadiversity countries in the world”, The World Bank has taken a serious interest in working with the Government of Peru to protect and nurture the country’s vast natural resources, particularly those contained within designated National Parks and Reserves. Through its Global Environment Facility (GEF), the Bank has allocated a “seed money” grant of U.S. \$5 million to establish a national trust fund for protected areas. The fund provides a long-term and predictable source of financing for the management of priority protected areas; improves INRENA’s capacity to protect and management Peru’s protected areas; provides an institutional mechanism to channel debt donation for sustainable development and conservation through bilateral and commercial debt-for-nature swap agreements; and, tests the viability of trust funds as mechanisms for providing long-term and sustainable funding for biodiversity conservation.

Inter-American Development Bank: The IDB, in 1994, was involved in a major environmental initiative in Peru. In support of an Environmental Law passed in 1991, the IDB, supported the creation of CONAM, the Consejo Nacional del Ambiente.

GTZ: In addition to their support of PROFONANPE and many other initiatives in Peru, the German Technical Support Agency (GTZ) is supporting a major park planning initiative in Peru known as Plan Director del Sistema Nacional de Areas Naturales Protegidas (Master Plan for the National System of Natural Protected Areas). The project was initiated based on the knowledge that Peru has poor experience with respect to tourism and its linkages with protected areas and has no direct knowledge or “institutional memory” with respect to how to identify the potential of the various protected areas for tourism. It was also recognized that it is important to establish some rules and regulations if ecotourism is to thrive in the country, and if the resource base is to be protected as development occurs. As a first step, the Plan Director project was established to look broadly at these issues on a country-wide basis. The research team has completed in late 1994 a draft background studies report, which provides a detailed overview of the national guidelines on organizational structures, human populations, resource utilization, planning activities, information systems, selection criteria, tourism and recreation uses, financial situation, etc. Constraints and opportunities have been identified.

Peru-Canada Fund: In addition to its other form of bilateral assistance, the Canadian International development Agency (CIDA) has established a Peru-Canada Fund (Fondo Perú-Canada) which although not devoted to any one sector, supports numerous projects every year that are submitted to it. The aim of the fund is to support community-based sustainable development in areas that are under particular economic and/or environmental stress. Among others, it has recently supported a project related to forestry management in a Biosphere Reserve under

stress. The fund may offer possibilities for the development of some of community-based programming initiatives related to ecotourism.

2.3 PERCEIVED DEGREE OF PARTICIPATION OF THE COUNTRY IN THE CONVENTION ON BIOLOGICAL DIVERSITY (CBD) AND PERCEIVED BENEFITS OF BEING A PART OF THE CBD

Peru signed the Convention on Biological Diversity at the Rio Conference (CNUMAD-92), and the Peruvian Republican Congress ratified the Convention in 1993. So Peru was the 20th in the world to ratify it, reaffirming this way the concern of the country for the topic.

The CONAM has been designated as the intersectoral coordinating instance on the matters of biological diversity in Peru. Its functions are: to develop the official reports about application of measures, remitted to the Agreements Secretary and the Parts of the Agreement Conference; to summon to a participatory process among the public and private sectors on the development of the National Strategy of Biological Diversity; and to coordinate the annual report of the national state of the art in biodiversity conservation, as well as to establish and apply the information system on biodiversity. The CONAM is also the national focal point of the facilitating mechanism for the biological diversity information interchange (CHM: Clearing House Mechanism).

To assist these commitments, the CONAM summoned to the conformation of the National Commission of the Biological Diversity (CONADIB). It is presided for the CONAM and conformed by governmental and non-governmental institutions, academic, qualified scientific institutions and representatives of the organized society. This Commission has allowed to: initiate the pertinent coordination with the public and private sectors to comply with that disposed on the Biological Diversity Convention; to define the political proposals for the conservation and sustainable use of the biological diversity. To follow the Biological Diversity Agreement and the Conservation and Sustainable use of the Biological Diversity Agreement.

From the CDB the Conservation and Sustainable use of the Biological Diversity Law (law 28839) has been elaborated, and there is no doubt that this is the main contribution for the legal and political structure development for the conservation and sustainable use of the biological diversity in Peru; and its governed by the Agreement principles and definitions.

2.4 OVERVIEW OF THE NGOs AND LOCAL COMMUNITIES IN BIODIVERSITY CONSERVATION: MAIN ACTIVITIES, CONSTRAINTS, AND ACHIEVEMENTS

A disjointed but very important contribution to the conservation of the biological diversity came from the media, NGOs, communities, managers, citizens groups, universities, local and regional governments. This reflects the enormous installed capability that is indispensable to strengthen, coordinate and complement actions in this field.

In Peru the NGOs and the local communities have played a preponderant role on the biodiversity conservation with a bigger relationship between them than with other entities. This way, many NGOs in the country have oriented their work to research and strengthening of the traditional technologies that relate to sustainability. On the most part of these interventions, the population has been committed to the conservation of agrobiodiversity and other ecological system elements related to the local community's economical activities. That is how *in situ* conservation mainly of phyto-genetic resources has been one of the activities that has had major emphasis on the Andean ecosystems.

There are many NGOs that have intervened in the conservation area of the wild components of biodiversity, with or without the participation of the local communities, principally in natural areas officially protected by the State, carrying out research on local biodiversity or ecological aspects of some species or relevant ecosystems due to their state of conservation or high level of endemism.

In Peru we have the presence of international NGOs like Conservation International, World Conservation Society (WCS) and World Wildlife Fund (WWF) which are particularly interested in the rain forest.

There are national NGO's such as:

- Fundación Peruana para la Conservación de la Naturaleza (FPCN) established in the mid-1980s, this high-profile IUCN-member organization is focused on issues involving sustainable development in and around protected areas, and the protection of biological diversity throughout Peru. It is the largest NGO in the country working for conservation with a staff of approximately 145 people who work mainly in National Protected Areas, notably in Manu, Pacaya Samiria, Pampas del Heath and Tumbes, among others. It is funded by a variety of international donors. FPCN works closely with government agencies such as INRENA, and also with the private sector.
- Sociedad Peruana de Derecho Ambiental (SPDA), has been working in the area of environmental law since its inception in 1987, proposing solutions to Peru's environmental problems based on law. The lawyers who are members of this NGO work on consulting assignments, legislative and policy development support to government agencies, defense of environmental issues in court, promotion of environmental law, information services, indigenous peoples rights, and training and support services. The organization has been instrumental in moving many important initiatives forward. At the national level, they have worked on the CONAM initiative dealing with the development of a National Environmental Commission, working with the GTZ-sponsored "Plan Director" process.
- The Centro para el Desarrollo del Indígena Amazónico (CEDIA) was established in 1992, focused on the provision of support to the indigenous native population in Peru's Amazon region. Although a law was passed in 1973 to ensure the rights of indigenous peoples to their traditional lands, increasing development pressures have been

drastically affecting them, and CEDIA acts to ensure that the law is enforced. CEDIA has been especially active in the area around Manu National Park, working extensively with the Machiguenga, who inhabit approximately 40 communities.

- Selva Sur is a conservation NGO based in Cusco. The group carries out many activities related to sound natural resources management and protection of biodiversity in the southern rainforest of Peru, particularly with respect to Manu National Park. The group is strongly interested in the issue of land tenure, agreeing with many other stakeholders that people not having title to their land is one of the main problems affecting protected areas due to the lack of development control that results from such a scenario. They believe that more research is required to establish impacts of ecotourism and other types of development, establish detailed plans for parks, etc., and involve the local people on a gradual basis in accordance with their desires and levels of development. Selva Sur has done much to bring Peru's environmental issues to national and international prominence, being instrumental in working with the government to establish protected areas, and developing educational books and videos on the rainforest.

There are other NGOs that work in different province or regions of the country, like CEDCON (Tambopata), APECO (Lima, coast and jungle), AEDES (Arequipa, sierra), PRODENA (lagoons of Mejía, sierra), Tambopata Research Center (southern rainforest), etc.

Following is a brief description of some of the main activities of the private sector in the field of biodiversity conservation::

In the case of Peru, although a long-standing parks and protected areas system is in place, infrastructure to support these areas is practically non-existent. In many cases, private reserves are filling this gap by providing some facilities for research, education and ecotourism. The benefits of privately owned nature reserves are several, including the following:

- Often provides "buffers" for parks, given that many reserves are located adjoining legally protected areas, thus increasing the amount of protected land, and thereby potentially assisting in the protection of biodiversity.
- Provides funds for education of local people and tourists, often linking this with research facilities.
- Provides local economic benefits.
- Provides at least some potential for natural resource conservation, given the strong incentive for ecotourism operators to maintain the integrity of their "attractions".
- Allows for allocation of scarce government funds to other purposes, such as conservation and research.

Private reserves play, and will continue to play, an important role in the development of Peru's ecotourism industry. Private reserves are where many of the earliest ecotourism activities were initiated in Peru, such as the Explorama Lodge/ACEER Research Centre near Iquitos and at the Cuzco Amazónico Reserve at Tambopata. Such reserves are permitted under the law, in some types of legally protected areas (such as the Manu Lodge, in the "Manu Reserve Zone") and on other state-owned lands, through concessions.

Many aspects dealing with the elaboration of the national laws or strategies have considered the successful experiences carried out by NGOs or local communities in matters of biodiversity conservation and management.

Some of the difficulties that partially limit NGOs and local community activities are related to the incompatibility between the legislation and policy and the local reality of biodiversity use. This is the case of the Amazonian rural communities inhabiting special territories such as the Protected Natural Areas. Other obstacles are conceptual or political at the government or regional entities level that still consider development and poverty reduction as incompatible with biodiversity conservation, believing that these phenomena necessarily provoke atmospheric deterioration. Another contradiction is the promotion of agrochemical use by governmental entities.

2.5 OVERVIEW OF NATIONAL SYSTEM OF NATIONAL PARKS AND PROTECTED AREAS

The Peruvian Political Constitution of 1993, in its 2nd chapter, title IV, contain devices referred to the atmosphere and natural resources. The 68th article of this chapter establishes the State's obligation to promote the Conservation of the Protected Natural Areas (ANP).

The public function related to the ANP is especially defined by its responsibility on the management, conduction and administration of the SINANPE (National System of Natural Areas Protected by the government). According to Law No. 26834, INRENA is the institution in charge of the formulation, application follow-up and evaluation of the National Strategy for the Protection of Natural Areas by the State – what is known as the Director Plan, through participatory processes.

The objective of the SINANPE is to contribute to the sustainable development of the country through the conservation of a significant sample of the biological diversity, the effective management of the protected natural areas, guaranteeing the contribution of environmental and socio-economic benefits to society.

Despite its many different problems over the years, Peru has managed to set aside some major areas for protection and sustainable use, covering over 5.5 million hectares representing 6% of the country and encompassing a wide variety of ecosystems. Although efforts have been very useful in protecting resources, "these units represent 63 of the

country's 101 life zones which means that more than one third have no protection unit" (INRENA, 1996).

The SINAMPE includes 44 areas, encompassing 7 National Parks, 8 National Reserves, 7 National Sanctuaries, 3 Historical Sanctuaries, as well as several Reserve Zones, Protected Forests and other types of designated areas. Peru has three biosphere reserves: Huascarán, Noroeste and Manu, and four RAMSAR sites: Mejia Lakes, Paracas, Titicaca Lake and Villa's Marshes.

The participation of the several social actors involved with the ANP and with the general system is considered indispensable for their adequate management. The ANP Law establishes the coordinating mechanisms for their administration.

- Coordinating Council: INRENA counts on this organism of the SINANPE for its management, as it is a coordinating, agreement and information instance to promote the adequate planning and management of the System's areas.
- Managing Committees: formed by representatives of the public and private sector with responsibilities on the area of each ANP, without considering the private ones.

The National Fund for the Protected Natural Areas (FONANPE) contributes with financial resources for the ANP basic operation as part of the System's financial strategy. It constitutes the SINANPE fiduciary fund. It is managed by the PROFONANPE, a private right entity, directed by representatives of the public and private sectors which responsibility is to manage the collected funds and put them at SINANPE's disposal according to the established criteria and procedures. In 1993-94, beginning with a grant from the German Technical Cooperation Agency (GTZ) in anticipation of the GEF grant, the agency established this small grants program and began to solicit proposals, while negotiating Peru's first debt-for nature swap. A US\$1.5 million grant from the GTZ will provide operational and institutional strengthening monies until the fund can sustainably finance project activities with its own income. The funds are used for activities such as: Park management, planning, establishment of buffer zones, training, community education/awareness-building programs; implementing projects that integrate conservation and development to benefit the local communities; institutional support for INRENA's directorate of National Protected Areas; administration of PROFONAMPE.

BRIEF DESCRIPTION OF THE MAIN ANP (NATURAL PROTECTED AREAS) AND SOME TOURISM ASPECTS

- Historical Sanctuary of Macchu Picchu: the pillar of the growing tourism industry in Peru. Because of its worldwide recognition, high visitation, and its spectacular Andean scenery surrounded by impressive mountains and valleys, it has been declared a World Heritage Site, which includes both natural and cultural characteristics. It is considered as a vital asset for the development

of ecotourism in Peru. It should also serve as an important model for ecotourism development throughout the country, as protection and enhancement of its extraordinary environmental setting is a crucial element for its long-term success. There is the Inca Trail, one of the most popular excursions in South America, which, besides including magnificent archeological sites, it leads to some high natural vegetation areas where an important diversity of flora and fauna can be observed. The present level of visitation fluctuates around 400 persons/day, although on some occasions the figure is over 1500 persons/day. Although the ruins themselves have a relatively high physical carrying capacity, detailed research is required to establish how much visitation is in fact, desirable. Although the site might be able to withstand large numbers of visitors without experiencing physical damage, "psychological", or experiential carrying capacity must also be considered, in order to determine the optimal numbers that can be accommodated while allowing visitors to enjoy their experience without feeling that the site is overcrowded. Although the archaeological ruins themselves may have a fairly high carrying capacity, the environment around the site, which is an integral and important part of the experience, is extremely fragile. Problems of deforestation, incompatible development, pollution and others are of great concern, and action is required to alleviate these problems before they become any more serious and affect the experience of visiting the site

- **Manu National Park:** declared by UNESCO as a World Heritage Site, as well as a Biosphere Reserve, it is one of the biggest parks of the System. It is a prime example of the biological diversity existing in Peru and one of the most important assets for the development of ecotourism in the country. In addition to the macaws and other parrots, over 1,000 species of birds, of the 1,752 found in the country, have been identified in the park, making Manu one of the leading birdwatching locations in the world. As a matter of fact, this is the protected area in the world where the largest number of avian species has been recorded. In addition, many species of mammals can be seen, including giant river otters, tapirs, jaguars and several species of monkeys. The core zone of Manu Biosphere Reserve, because of the international protected area category in which it is placed, is not (at least in principle) directly used for tourism. Tourism is legally restricted to the buffer zone of the park, where there are ecolodges and camping sites. Tourist visitation to Manu began in the early 80's. During the first decade there were only about 500 visitors per year, then a drastic fall came due to political strife until 1992 when the number of visits rose again to about 3,000 per year despite the difficult access and high prices.
- **Tambopata - Candamo Reserve Zone:** after some studies made for some years by the Wildlife Conservation Society (WCS) and the "Selva Sur" group, governmental officials were convinced of the importance of the preservation of this area in order to "conserve the biological diversity and to protect the main wildlife attractions that constitute the basis for and important ecotourism development." The Reserve Zone is located in southern Peru, on the border with Bolivia, adjacent to the Madidi National Park of the latter country. It is

believed that these two areas together are protecting more faunal and floristic species than any other conservation area in the entire world. The important macaw population is the main attraction for many of the ecotourists. Some years after its creation, part of the Reserve changed its category by the creation of the Baguaja Sonene National Park. A number of local community-based projects have implemented ecolodges, contributing this way to the sustainable development of the area and protecting the existing biodiversity.

- Paracas National Reserve: it is the most popular destination of the country. It attracts approximately 200,000 people/year. The difference between this and the other visited areas is that 80% of the visitors are Peruvian and that they arrive for short vacations. The Reserve is advocated to the marine flora and fauna protection. This area holds South America's largest sanctuary of coastal birds.
- Huascaran National Park: located in the White Mountain Range, includes a 160 km-long narrow fringe of snowy mountains. It is one of the best-managed protected natural areas in Peru and has been designated a World Heritage Site by UNESCO. After the solving of several conflicts between the Park's administration and the local population, a situation has been attained by which the local communities receive important benefits from ecotourism services.
- Titicaca National Reserve: created for the aquatic ecosystem related to the conservation and sustainable use of the "totora" (a local reed, used for making boats since pre-Hispanic times). It is visited equally for fishing as well as to travel to the islands to watch cultural activities.
- High-Priority Areas for Conservation in Peru: 38 zones have been designated as high priority conservation in Peru. Half of them is already a part of the SINANPE. Others, like the Colca and Cotahuasi Canyon are considered among the most important ecotourism destinations in the country. The Colca Valley receives most of the tourists visiting the Peruvian southwest. This circumstance, added to the lack of planning has caused important negative effects over the natural assets and the local culture. The Cotahuasi Valley and Canyon do not receive more than 400 visitors/year because of the lack of promotion and far away location. This situation gives place to the development and application of plans that prevent negative impacts.

3. OVERVIEW OF LINKS BETWEEN TOURISM DEVELOPMENT BIODIVERSITY CONSERVATION AND PLANNING

3.1 DESCRIPTION AND CRITIQUE OF EXISTING NATIONAL STRATEGY, PLAN OR POLICY APPLIED TO ANY INTERACTION BETWEEN TOURISM DEVELOPMENT AND BIODIVERSITY CONSERVATION AND PLANNING-i.e., NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAPs).

According to the Law on Conservation and Sustainable Use of Biological Diversity, the National Strategy of Biological Diversity (ENDB) is the main instrument of planning for the execution of the objectives of the Law and of the Agreement on Biological Diversity; it is an effective tool whose main distinguishing characteristic is to make recommendations of national action on certain aspects of ecological conservation.

The National Strategy on Biological sets out the broad guidelines and options for the conservation and sustainable use of our diversity.

Conceptually one can say that the strategy:

Analyzes the descriptive data and the information coming from national diagnoses and other important research; it identifies the goals and potential objectives and it analyzes the holes among the current reality and the aspirations exposed in the objectives.

Analyzes the topics and opportunities to attain these objectives, the environmental impacts of the different options and the implications for the human and institutional capacities, in infrastructure and financial resources of the nation and the possible needs for international cooperation. The strategy proposes the action and the necessary investments to guide each objective and to assign priorities to each one of these objectives.

Defines a Plan of Action that outlines the necessary steps to implement the selected strategy and then guides the practical questions: which organizations (public and private) should participate in the required activities, under what structures, time frame, in what places, under what forms and with what resources.

It defines what institutions will be responsible for taking measures for conservation and sustainable use, with what staff, which institutional resources, facilities and financing. It also defines the implementation agency and it being the case, the negotiation for international cooperation.

The ENDB is a permanent process of negotiation and search for consent among social actors and of participative action in the identification of political priorities.. As it stresses multisectoral and transectoral processes, it searches for solutions to the problems that are Frequently sectorally isolated. It aims to be a democratic and transparent process of planning whose more meaningful achievement is to generate the mechanisms that make possible the decisions taken by the government, starting from the active and balanced incorporation of social actors in the process.

Because it is a strategy developed in participative form, and still not concluded, hopefully all the relevant problematical aspects will be identified, a fact that has been awaited for a long of time by the country, which strives for sustainable development and biodiversity conservation.. However, there are many numerous legal norms that directly or indirectly impact the biological diversity of the country, on which the ENDB is based,

and in some occasions they are in contradiction with other official norms or with the aspirations of pseudo politicians.

For example, contradiction exists between the norm that promotes the integrated handling of pest species and the norm that subsidizes agro-chemical products; also between the law of Biological Diversity that promotes research on biological diversity and the DS 020-97-AG that suspends (indefinitely) the authorizations for scientific collecting due to the setting up of hunting season calendars and the prohibition of Amazonian species of wild fauna that had been decreed in 1973 (D.S 934-73-AG). This decree suggests that, once the hunting season calendar is approved, commercial hunting will be allowed of all or many of the Amazonian species whose scientific collecting and subsistence hunting is limited to special permits involving 15 species. This legislation also fosters an important increase in sports hunting.

In the Strategy, there are also mechanisms or actions for the conversion of biodiversity, based on the principles of ecotourism that involves the population in the whole process and promotes training and setting up of tour companies.

The proposals of the strategy are very clear in terms of respect to the Peruvian Amazon's native populations, not allowing the entrance of visitors to protected natural areas solely inhabited by native communities, specifying that these communities will decide if they want to have the presence of tourists with the purpose of cultural exchange or simply the sale of handicrafts, like it is the case of the native communities of the Cultural Area of the Manu.

3.2 ANALYSIS OF MAIN PERCEIVED PROBLEMS AND CONSTRAINTS AT THE NATIONAL LEVEL (INCLUDING NEGATIVE LINKAGES AND THREATS OF TOURISM TO BIODIVERSITY CONSERVATION)

3.2.1 POLITICAL

To answer these problems, the State has assigned a series of environmental competitions to a group of organisms of the public sector, those that take charge of establishing policies and regulating mechanisms, including inspection and enforcement. Advances have been achieved in the last years, although in some sectors more than others. A true environmental policy has not existed in Peru, but only a series of isolated efforts that, in a comprehensive way, have not been able to appropriately face and solve the problems.

Each productive sector ministry is constituted, on one hand, into a judge, being charged with environmental control and the corresponding impacts on biodiversity, but on the other hand, because each sector has its own environmental interests, its decisions only consider their particular concerns, omitting the interests of other sectors that share resources, giving place to contradictions and overlapping of functions. Lastly, each sector demands territorial assignment to develop archaeological,

agricultural, urban expansion projects and so forth; in many cases, the maps are superimposed, originating conflicts of interests and solutions based on political power and not on environmental considerations. In addition, there is an inherited institutional weakness, limited management and executive capacity and inability to solve problems

Summarizing, a true environmental policy has not existed in Peru, but only a series of isolated efforts that, have not been able to face the problems efficiently and in a holistic way. (you already say this in the first paragraph of this section) Efforts have been mostly legislative, and have not been able to solve the problems efficiently. During the 20th century more than 4700 legal norms with direct implications or inferences in environmental matters have been dictated. Of these, more than 800 have appeared in the last five years. Frequently, they have had such a low level of observance that they have only generated frustration.

In the tourist activity, due to the lack of planning and focus on biodiversity conservation, and faulty policies both at the national and regional levels, in many cases scenarios aiming at environmental deterioration have been created in tourist destinations. In many cases carrying capacity has been exceeded and there is non effective strategy for fostering awareness amongst the local on the value of biodiversity.

The lack of adequate land use planning throughout the country presents a major problem for the development of ecotourism. In a country where well over 80 % of the land is owned by the government, and where settlers do not hold titles to the property they are living on, development control is impossible. Under such conditions, development around Natural Protected Areas is generally unplanned and often takes the form of settlement by migrant farmers, slash and burn agriculture, petroleum and mineral exploration and haphazard tourism development. This situation has become serious around many of the protected areas and is threatening not only the environments of the parks but indigenous populations as well. In the absence of significant land titling and land use planning efforts, the integrity of protected areas and the rights of indigenous peoples will continue to be endangered and the long-term future of ecotourism will be severely jeopardized.

To all this we can add:

- Lack of political leadership and a faulty relationship with the private tourism sector, which impede putting into practice successful experiences
- Inability to reach agreement among the institutions that are involved in tourism.
- Absence of strategic plans for the tourism sector.
- Non existence of regulations for tour operators and guides, as well as lack of efficient training programs.

3.2.2 ECONOMIC

Soon after the crisis the late 1980's and the beginning of the 1990's, a low participation of private capital still pervades, because a lack of perceived security persists in the country, a situation that has been aggravated with the economic instability of the last years.

A true economic planning of the use of their resources does not exist on the part of the local communities this resulting in an unavoidable inequality, over exploitation and waste of natural resources.

Efforts focused on a paradigm change as regards sustainable development and biodiversity conservation have not been sufficient., Most of the country's population carries out its economic activities without considering the negative impacts on the environment, including the atmosphere. As in most other Latin American countries, any change proposed in favor of an improvement in the conservation of biodiversity is taken as an obstacle for development. The sustainable positive impact of biodiversity within a comprehensive regional development strategy that considers overall qualitative benefits and not merely quantitative economic gains within a partial sectoral focus is still not understood by the population at large, nor by most of the politicians.

3.2.3 SOCIAL

A legislation or concrete policies that aim at an equal distribution of the benefits of tourism among the interested parties (mainly the local communities, who are ultimately responsible for conserving their natural ecosystems and the biodiversity therein contained) is non existent.

In spite of the current legal and political orientations, the local communities are still not effectively participating in the decision making process. In many instances, outsiders use the biodiversity resources of a local community without consultation. Also, the local communities are usually not interested in giving other uses to their biodiversity resource base, apart from their traditional utilization

Rural local communities hardly participate in the tourism process.. Participative tourism should be seen as the type of tourism that benefits both biodiversity conservation and the local community, considering harmonious interaction between both elements

Many rural communities located in the most attractive ecotouristic destinations are characterized by extreme poverty. Unfortunately, government development plans normally don't consider involvement in tourism activities as an option to alleviate poverty.

3.2.4 TECHNICAL (MANAGERIAL)

Tourism research and statistics in Peru are incomplete and do not consider inventories of ecotourism attractions or their biodiversity base. Normally, carrying capacity studies are not carried out in ecotourism destinations.

The promotion of the very diverse tourist circuits with which Peru counts is scarce Or non existent. There seems to be little interest on behalf of the public and private tourism entities in decentralizing tourism promotion.

Regulation in protected natural areas, is not effective, and there are few norms dealing with conservation of the biodiversity resource base and other natural resources. Even the lighting of bonfires in vulnerable areas is rarely controlled.

3.2.5 HUMAN RESOURCES

A professional incompetence exists, as a result of all the above mentioned shortcomings in the fields of policies and legislation. An example of this is the lack of certification and regulations for tourist guides, who work many times with little capability and knowledge.

As regards qualified personnel, the situation presents similar shortcomings. Frequently, protected areas staff are brought in from other regions of Peru, with a totally different natural environment, and consequently their capability of responding to local conditions is very limited.

3.2.6 BIODIVERSITY CONSERVATION *PER SE* (AT ALL THREE LEVELS: ECOSYSTEM, SPECIES AND GENETIC)

ECOSYSTEMS:

A national zoning plan that identifies the most relevant and fragile ecosystems or the most attractive ecotouristic destinations does not exist.

The National System of Natural Areas does not have representatives in the different Units of Conservation around the country.

SPECIES:

The control on the extractive exploitation of protected species or others with national and international value due to their endemic or migratory character is not effective because the large scale trade of many species is still appreciated in many tourist destinations around the country, being sold as souvenirs or merchandise of different types. Even if Peru is a member of CITES (Convention on Trade in Endangered Species of Wild Fauna and Flora), there is little effective control on illegal trade of threatened species.

GENES

The genetic resource base is undoubtedly one of the key points of rights of property. It is not measured, but it is known that the exit of genetic resources of the country is still mainly outside of the control of the competent authorities.

Many government officials don't consider the conservation of the phytogenetic resources when promoting the production of species and/or varieties of cultivated plants with better characteristics than the native ones.

For lack of incentives for research, only a small proportion of the total genetic potential of Peru is known.

3.2.7 EXAMPLES OF BAD PRACTICE AND FAILURES

It is painful to indicate the Valley of the Colca as one of the places that most severely presents the problems above mentioned. Among the most serious problems are the lack of tourism carrying capacity studies and not considering local communities in decision-making processes. The result is a progressive degradation (natural, cultural and social) of this magnificent area. Mendicity (begging) is one of the most serious social problems. Another serious case is that of the Inca Trail in Machu Picchu, where the uncontrolled practice of bonfires has in many occasions caused fires of considerable proportions.

The Paracas National Reserve is a typical example of a lack of control on the waste that visitors leave in addition to the uncontrolled contamination from numerous factories that produce fish flour.

In some sectors of the Tambopata - Candamo Reserve Zone and of the National Park Baguaja - Sonene, hunting is forbidden for local residents, with the purpose of maintaining appropriate wildlife viewing for tourists. However, these local communities have hunted for for their subsistence during dozens of years and now they don't have any alternative activities for their survival.

4. PROPOSED STRATEGIES AND SOLUTIONS

4.1 POLICY - ORIENTED

- The planning and development of tourism should form a part of sustainable development strategies at regional and national levels.
- Agencies, corporations and groups of people connected with tourism should adhere to a code of ethics regarding the conservation of biodiversity.
- Local communities should be provided with good information on tourism and the conservation of biodiversity.

- Sustainable policies should be forged in coordination with business people and local communities.
- Draw up a program at national level for the evaluation of the effect of ecotourism on biodiversity in the principal tourist destinations.
- Attempt to obtain, in the shortest possible time, an agreement from the Vice-minister of Tourism to assume the relevant responsibility to coordinate with other institutions like CONAM (the National Council for the Environment).
- The new regulations regarding tourist guides will benefit many professionals currently out of work, because specialists in different fields (e.g. biologists, ornithologists, botanists, etc.), are required. This also gives added job opportunities to young local people who have considerable knowledge of their area.
- The protection and enhancement of the environment is a crucial factor for sustained success.
- The strengthening of self-esteem and local cultures is a necessity. Like other forms of tourism, ecotourism can have serious unwanted effects on local people, if not duly controlled. Government action must focus very carefully on this issue, particularly with respect to the indigenous populations who rely totally on the natural environment for their survival.
- A national level policy should be drawn up, within the National Development Plan, regarding the parallelism existing between the concepts of carrying capacity and sustainable tourism.
- The marketing program of PROMPERU should tend to build in a more efficient way Peru's international image with respect to exports, wise investment, environmental conservation and sustainable tourism.

4.2 ECONOMIC

- Foreign and local investment should be attracted, for which reason local political stability is essential.
- Different tourist packages which are available within Peru should enjoy well-directed promotion in which the north, center and south of the country are all considered. Reduced-tariff promotions should also be encouraged.
- Domestic tourism – and not only foreign tourism - should be encouraged, but in a sustainable way.
- The commercial banking structure should be improved in order to provide the possibility of loans to community businesses.
- Incentive policies should be promoted in order to favor balanced growth.

4.3 TECHNICAL/MANAGERIAL - INCLUDING MECHANISMS FOR INTERSECTORAL COORDINATION

- Biodiversity research should be promoted, considering also the ecotouristic potential of the biodiversity resource base.
- It is important to increase the use of environmental indicators (e.g. species of birds or amphibians).
- Detailed studies should be carried out to determine the optimum visitation levels and the carrying capacity of natural environments with ecotouristic assets.
- The need for an “ecotourism model ” designed to more effectively define ecotourism in a Peruvian context as well as to express varying resource sensitivity levels, appropriate degrees of development and infrastructure and types of experiences generally associated with the various types of resources. This model will enable the establishment of appropriate levels of tourism use/visitation (carrying capacity) for various sites. In addition, the model will ultimately be able to function as an important monitoring and evaluation tool to assist government planners and others in determining what levels of change are occurring at various sites, and whether such change is acceptable.
- The social and economic effects of the income from tourism should be considered. and channelled to provide benefits for biodiversity conservation and sustainable development.
- Data gathering for statistical purposes should be realistic and efficient , and public and private entities should therefore collaborate in this sense. Among the public institutions is the tourist police, and the private ones include lodging establishments
- Autonomous authorities should be set up in the ANP which have important levels of tourism, and in other special areas (for example, valleys).
- Cultural interaction between visitors and local inhabitants should be promoted, but in such a way that cultural shock and negative impacts are controlled.
- Some tourism companies are in the process of certifying in ISO 14001, providing examples of environmental quality in the services that they lend. The public and private organizations should promote the incorporation to this certification type, and also other types of certification.

4.4 HUMAN RESOURCES (INCLUDING EDUCATION AND TRAINING)

- Professional specialists in tourism should form an active part of planning organizations.

- Training should be given to people who work in places which provide services to tourists, such as waiters in restaurants, hotel clerks and taxi drivers. This can be done with support from PROMPERU and CENFOTUR.
- Rural communities should be included in tourism training schemes, otherwise they will not benefit from tourist activities.
- The public institutions (e.g. CENFOTUR and PROMPERU) should be involved in this process, and the government must be promoting this.

4.5 BIODIVERSITY CONSERVATION *PER SE* (AT ALL THREE LEVELS: ECOSYSTEM; SPECIES AND GENETIC).

ECOSYSTEM:

An ecological / economic zoning plan of Peru should be drawn up so as to provide a tool which classifies the territory according to different environmental priorities, emphasizing conservation in natural reserves where ecosystems are fragile and in the national parks. This zoning plan should consider trans-boundary ecosystems in neighboring countries.

Plans for valley areas should be promoted and oriented so as to be practically effective.

SPECIES:

Indirect use of species should be promoted, on the basis of investigations which show that they can provide greater economic benefit to the population in a wild state than as objects to be sold. An example could be activities such as bird watching, or other less traditional ones like observation of bats and other wildlife, planting of gardens with local indigenous flora, etc. Studies directed towards the determination of ecological values of species should be developed as this helps to stimulate interest in their conservation among public entities and local communities.

GENETIC:

Basic research should be encouraged in order to provide complete inventories of Peru's genetic resources, for each ecological region.

Tourist activities in which the tourist experiences local life, such as agrotourism, which implies the in situ conservation of species and plant varieties cultivated by local communities, should be promoted.

A network of conservation units at regional or municipal level should be set up and these should cover localities which have a diversity of biological elements important as a depository of genetic resources.

4.6 EXAMPLES OF BEST PRACTICES IN LINKING TOURISM DEVELOPMENT AND BIODIVERSITY CONSERVATION PLANNING (BCP)

4.6.1 NAME OF PROJECT OR DEVELOPMENT

Strategic Development Plan for the Province of La Union – Agenda Local 21

4.6.2 EXACT LOCATION

Cotahuasi River Basin, La Union Province, Arequipa Region, Peru; in the south western Peruvian Andes.

4.6.3 MANAGEMENT AND COORDINATION

The Cotahuasi River Basin includes one of the world's deepest and most beautiful canyons.

It is mainly within the territory of the province of La Union and owing to its distance from large cities and inaccessibility, has developed a subsistence economy which continued for many years without the intervention of public or private organizations. This has enabled the environment to remain undisturbed, maintain harmony between nature and human activities. Water, soil flora, fauna and natural landscape provide a biological diversity unequalled in other environments with similar characteristics on account of its biogeographical location and rugged terrain.

Many elements of this biodiversity are utilized rationally by the local population, but during the past few years activities carried out in the basin by public and private entities, in one way or another, pose a threat to the conservation of those elements. During the past decade, the application of government policies and the provision of aid to the province has made it necessary to coordinate activities related to local development, among which are those connected with tourism and biodiversity.

The canyon and valley of the Cotahuasi River has, during the past decade begun to receive visitors. This has come about without any special promotion of tourism other than that propagated word-of-mouth by the visitors themselves, who are able to speak of natural and cultural attractions and of the singular beauty and state of natural conservation of the Cotahuasi Basin. The local population understands that it is necessary to provide a strategic plan for the development of tourism so that the existing biodiversity is respected and conserved.

During the past five years, a task force has been in operation, in which the institutions and organized local population participate in round table discussions. This is the "provincial round table" and comprises four working groups: on agriculture, natural resources and environment (MTAARNMA); on tourism and culture (MTTCC); on social issues; and on communications and energy aspects. In 1996, the first local Agenda 21 was drawn up, for a five-year period, in which priority was given among other things, to organic agriculture for exportation and to tourism. At the present time, the local

population and authorities are working on a longer-term agenda, preliminarily to cover the period 2001-2021, and which is to give much importance to biodiversity and its relation to tourism, on the basis of existing positive experience.

Coordination and management within the province (valley) are carried out by each of the work groups and the MTAARNMA and MTCC are those which work most closely together, coordinating activities for infrastructure and necessary services for putting into practice the tourism development plan within the framework of biodiversity conservation and local society, and striving to revitalize the economy of the province.

One of the principal ideas taken into account for this plan is that proposed by a technical group formed by the regional environmental commission of Arequipa for the sustainable management of biodiversity in the Cotahuasi Basin. It consists of a sustainable management plan for biodiversity based on local potential defined on the basis of a diagnosis of physical/biotic and social/economic components; on a training scheme for the local population and its organization; on the production of a database on biodiversity; and on an action plan with the involvement of the authorities. One proposed programme is that dealing with ecotourism.

4.6.4 DESCRIPTION OF MAIN OBJECTIVES, ACHIEVEMENTS AND CONSTRAINTS

OBJECTIVES

Within the strategic development plan for the province of La Union – Local Agenda 21, in the part dealing with tourism and biodiversity conservation, the following objectives have been defined regarding integral management of resources:

- Sustainable management of biodiversity is to form part of the plans of local and district governments.
- Sustainable management of biodiversity is to form part of the function of institutions.
- Traditional practices which bring about a sustainable management of biodiversity are to be encouraged,
- The Cotahuasi tourism product, which is characterized by a different kind of tourism, is to be defined in order to give it competitive status.
- Tourist circuits for the appreciation of biodiversity are to be defined.
- The participation of local young people is to be strengthened.
- Tourism capability is to be generated.

- Technical tools are to be available for making studies of carrying capacity and maximum capacity for maintaining the ecology with regard to tourism.

ACHIEVEMENTS

The provincial round table (MCP) and, especially, the MTAARNMA have a management scheme for biodiversity in the Cotahuasi Basin. The scheme incorporates tourism as an activity which is one of the principal aids to the conservation of biodiversity, and is to be implemented by the population in coordination with their authorities.

Support from institutions has been strengthened, especially in the form of the mechanisms set up within the MCP and its work groups which, despite changes in local authorities, have remained operative and have been reinforced with the implementing of the management scheme for biodiversity and with the drawing up of the new provincial strategic development plan (Agenda Local 21: 2001-2021)

Handling of expectations regarding tourism has been accomplished in the sense that as tourism is an activity which should be sustainable, it must be implemented in a gradual, planned manner; the population has adopted a "patient" attitude regarding economic benefits and has changed the "profit today uncertain future" paradigm for one of lasting and growing activity.

Tourist circuits featuring biodiversity have been formed with the participation of the local people whose points of view are incorporated regarding planning and structure of circuits for their promotion. These circuits basically focus on the natural beauty of an area where there are many ecotourism assets, such as birds, medicinal plants or agrobiodiversity.

Increased importance has been given to local self-esteem and culture on the basis of projects carried out by primary and secondary school students all over the province and which form part of the school syllabus, together with the introduction of topics throughout all areas of learning.

Rural dwellings have been prepared so that they may serve as lodgings for visitors.

The country folk, with a minimum infrastructure, can offer their services to visitors who prefer staying in the countryside to staying in the villages.

The training of local people as guides and environment interpreters is being brought about by the provincial youth association through training modules, and it is setting up a small business entity offering tourist services.

PROBLEMS AND LIMITATIONS

The change of mayors in the provincial and local councils brings about disruption in the implementing of plans despite the MCP and its work groups being operative. Many council members, starting with the mayor, are new in office and this causes delays or lack of continuity in planned activities.

There are government policies which run against the general schemes of provincial plans for the environment and biodiversity. Examples are the promotion of the use of agro-chemicals and the introduction of exotic vegetable species.

There is misleading tourist promotion of the Cotahuasi Basin by some of the travel agencies in the city of Arequipa. These people do not know the area they are promoting, and give false information (about the distance, the type of access road and the services that they offer) to potential visitors who, in turn, feel unsatisfied because the visit does not come up to their expectations. Employees in the travel agencies frequently exaggerate when describing the landscape, the weather and other tourist attractions, and the agencies many times do not provide services that were offered. This is largely due to a lack of coordination and joint planning.

There are misguided infrastructure practices by some local people who, owing to a lack of understanding of the potential of ecotourism, may construct hotels or public buildings which ruin the harmony of the landscape.

There is a lack of economic solvency among the majority of those interested in the development of tourist services, together with a lack of capacity to secure bank loans because of the structure of the banking sector.

5.6.1 NAME OF PROJECT OR DEVELOPMENT

Strengthening Local Capacity for the Conservation and Development of Mountains (FOCAL).

5.6.2 EXACT LOCATION

Huascarán National Park, Cordillera Blanca, Ancash Department – Peru, in the Peruvian Central Andes.

5.6.3 MANAGEMENT AND COORDINATION

With funding from the Embassy of Holland and Support from the National Natural Resources Institute (INRENA), the Mountain Institute Project to Strengthen Local Capacity for the Conservation and Development of Mountains (FOCAL) works to protect the environment in the Huascarán National Park and the Cordillera de Huayhuash.

The Cordillera Blanca, the highest tropical mountain range in the world, became a National Park in 1975. Two years later, UNESCO incorporated the Park into its network of Biosphere Reserves and in 1985, it was declared a World Heritage Site.

In order to develop projects that suit its communities' needs, technicians from the Mountain Institute use the time-honored techniques of listening and understanding. Working alongside enthusiastic community residents has a multiplying effect. In this way, the process is replicated among numerous communities. Communication increases the possibility of protecting the natural environment and of clearly establishing the relationship between environmental protection and community well being.

5.6.4 DESCRIPTION OF MAIN OBJECTIVES, ACHIEVEMENTS AND CONSTRAINTS.

OBJECTIVES

Conservation of Huascarán National Park with the communities' traditional knowledge and governmental structures in order to forge a long-term vision.

Convert the zone into a tourist destination while maintaining its cultural identity and protecting its ecosystems in order to improve the population's socio-economic situation.

ACHIEVEMENTS

The local commitment is illustrated by the plan developed by the municipalities of the Negro River basin south of the city of Huaraz. The plan outlines project to boost local income by using the area's natural beauty and folk art traditions to turn it into a tourist destination. Among the various groups that have joined forces to develop a plan for sustainable use of natural resources is the Association of Muleteers and Mountain Assistants.

The association's Llama 2000 project represents a local vision made reality thanks to the efforts of community members and help from the Mountain Institute and PromPeru. Under this premise, this institution supports the local Management Committee of the Negro River basin in the promotion of its development plan. The process is currently underway in other communities.

CONSTRAINTS

The dialogue with mining and hydroelectric companies who are present in the area is indispensable if conflicts are to truly be avoided. These companies play an important role in the country's development, but could affect the park's future if unsound environmental practices take place and if points of consensus cannot be found.

6.6.1 NAME OF PROJECT OR DEVELOPMENT

Biodiversity protection in the Mejia Lakes National Sanctuary

6.6.2 EXACT LOCATION

Coast of the Arequipa Department – Peru, Subtropical Pacific Desert.

6.6.3 MANAGEMENT AND COORDINATION

The area's wetlands are complex ecosystems that fulfill a variety of important biological functions. The Mejia lakes and wetlands are the only ones that exist along the more than 2,000 kilometers of mostly desert coastline between Pisco, 650 kms north of Arequipa, and Rio Huasco, 1,350 kms to the south, in Chile.

PRODNA – Arequipa, a non-profit organization dedicated to environmental protection, played a strong role in the protection of the area, which was declared a reserved zone in 1984. Today it is a National Sanctuary under the jurisdiction of the National Institute for Natural Resources (INRENA).

6.6.4 DESCRIPTION OF MAIN OBJECTIVES, ACHIEVEMENTS AND CONSTRAINTS.

OBJECTIVES

Protect the Sanctuary's biodiversity, specially endemic and rare plants and animals.

ACHIEVEMENTS

Various programs are underway to protect the Sanctuary's biodiversity. They are technical assistance programs aimed at implementing tourist services, craft industries and sustainable agriculture, as well as civil engineering programs aimed at maintaining waters levels.

Currently, the lakes are protected and enjoy a constant stream of visits from children, young people and adults, most of them nationals, keen to discover the charms of this natural setting.

CONSTRAINTS

The scarce participation of the local authorities in the coordination activities concerning the protection tasks of the Sanctuary have caused gaps in the execution of the plans. Also, the constant changes of the Protected Natural Areas's manager, provoke a lack of continuity in actions.

The scarce knowledge of the managers of this Sanctuary about the coastal wetland ecosystems, and also the lack of appropriate training of these persons represents another major problem, since it requires a long period of time for the manager to acquire an adequate knowledge about management of the ecosystem.

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