

**RIGHTS OF INDIGENOUS GROUPS OVER NATURAL RESOURCES
IN TROPICAL FORESTS**

Julio C. Tresierra

Environment Division Working Paper

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EXECUTIVE SUMMARY

This study analyzes present-day and historical demographic, socioeconomic, and cultural changes in traditional native groups and in their environment, which have led to a growing loss of ethnic and ecological diversity in the main tropical rainforests of Latin America. Traditionally, controlled slash and burn farming and the existence of vast forested areas with a wide array of native species have guaranteed the sustainable use of natural resources. This subsistence system is based on beliefs, rituals, and values that condition access to resources by members of the group and their use of them. Native cultural elements such as collective ownership and kinship, the tradition of sharing and limiting the accumulation of individual goods, and the independence of a native group must be kept in mind when attempting to link native production activities to the market economy.

The study summarizes actions by external agents that have led to rapid deforestation in recent years and to restrictions on access to forest resources which often lead to confrontation with the affected indigenous communities. The development of road infrastructure that permits large-scale settlement by non natives, the advance of ranching, and the use of wood and the nonrenewable subsoil resources (fossil fuels and minerals) are among the most important external factors. Certain features of the development of indigenous communities themselves can undermine the viability of their traditional strategies for the use of forest resources. Population growth, sedenterization, consumerism, and changes in values as a result of contact with modern society often make natives more vulnerable to market forces. Low levels of education, lack of legal and technical training, and weak organizations make it difficult for them to negotiate their rights, develop economic alternatives, or interact with the State, national society, and different external agents such as private companies and development agencies.

A growing body of national legislation and international law on indigenous groups and their rights to the use of natural resources has been promulgated in the last 30 years. The legislation on indigenous peoples' rights in the region is complex. Legislation in the countries other than Central America appears to guarantee native populations the right to ownership and use of renewable natural and water resources. Although in all the countries of Latin America, the government retains the right to the use of subsoil resources, there are ways in which native groups can share in the profits. Many countries have legally transferred large areas to them and recognized their rights. Despite the advances in legislation, in practice the laws are not properly enforced and the destruction of natural resources in indigenous territories has not ceased. In most cases this destruction has been caused by external agents, but at times it is caused by the needs of native groups themselves. The myriad of reasons include lack of knowledge of the law and weak negotiating capacity on their part, ambiguities in the law used by legal experts on behalf of nonindigenous external agents, lack of general implementation of legislation which has often been designed without considering the real situation of indigenous populations, and institutional weakness of governments and native communities.

The dynamics of change and the complexity of potential conflicts do not allow for across-the-board solutions. The extent to which the relation between a native group and external forces lead to unsustainable uses of tropical forests should be determined on a case-to-case basis before initiating development activities. These activities should be geared to gradually combine market economies with native cultural elements. As a consequence of these cultural characteristics donations should be cut back significantly and loans for productive projects should be granted at interest rates, although minimal, right from the beginning. Indigenous groups should be encouraged to participate in investment projects and they should be trained in the handling of market economy tools. The sustainable use of forest resources based on ethnobiology and the participation of indigenous communities in conservation projects are promising examples of culturally compatible cooperation

programs. In many cases diversified training is necessary in various productive and non-productive activities as an integral part of cooperation programs.

International cooperation agencies should assist indigenous organizations to gain a better understanding of existing legislation and new policies proposed for native groups and in the provision of legal advisory services for parties in conflict. Land tenure conflicts in particular should be solved through coordinated action by governments, indigenous organizations, and international agencies. Finally, there is need to monitor the impact of constitutional reforms and privatization processes in the land use of indigenous territories.

INTRODUCTION

The social, demographic, ecological, economic, and political conditions created by global society toward the end of this century have placed unprecedented pressure on natural resources. The Latin American tropical rainforest is being exploited and deforested by agents who had little or no contact with indigenous communities 50 years ago, and the privatization of natural resources and social services has created conditions that have a strong impact on less privileged groups. The technological changes of industrial society and incursions by agents of the market economy mean that the native communities of the tropical rainforest must make continual adjustments if they are to survive. Their limited capacity to adjust to demands of this kind means that change hits them particularly hard. It is becoming increasingly difficult for the indigenous groups in the region to reach to a minimum level of sustenance.

Native groups have come to a crossroads owing to the drastic changes in the environment over the last 40 years. The loss of biological diversity has eroded their material base for survival and the loss of their traditional culture has undermined their values and social structures. Initiatives to conserve and promote biodiversity and ethnodiversity have been embodied in international accords such as the Convention on Biological Diversity and in the constitutions of countries such as Brazil, Bolivia, Colombia, Chile, Mexico, Nicaragua and Peru which accept and recognize the multiethnic identity of the State.

Combining field work with a study of the literature, the first section of this document summarizes demographic and geographic characteristics and describes the exogenous and endogenous changes that affect the aboriginal groups of the Latin American rainforest and their environment. The following questions are asked in relation to these changes. (1) What are the possibilities for the economic development of native communities without negating the value of their traditional usage of natural resources? (2) How can legislation that responds to the specifics of this complex and changing dilemma be designed and implemented?

Two main obstacles stand in the way of finding solutions. (1) On account of their traditional values, indigenous communities are often unfamiliar with or even reject the practices inherent to the market economy, such as obtaining savings from returns on investments and the use of interest-bearing loans. (2) The complexity and dynamics of change make it impossible to generalize about the role played by indigenous populations. The same peoples who have used natural forest resources in a sustainable fashion can, when pushed by need and changing values, become agents of destruction. To find answers to these difficult questions, we have selected a sample of cases from Peru and other Amazon countries. The Darién region in Panama has been chosen as a second focus although reference is also made to other rainforest areas in Latin America. Changes in legislation concerning indigenous groups and natural resources are described in the second section of the document. It also presents difficulties in enforcement of the legislation. The Annex of the document presents information on the evolution of national laws and international conventions bearing on these groups, their territories and their access to and use of natural resources.

The study does not make generalizations that could be applied to all the native groups living in the tropical rainforest. Instead, it reviews the most relevant broad issues relating to their economic development and rights to the use of natural resources. The issues faced by development agencies, nongovernmental organizations, and national governments are studied from the standpoint of the needs of indigenous organizations, which should give these external agents an idea of how to redesign their support strategies. The study presents two main conclusions on the legal and development issues:

1. The components of market economies and native cultural elements should be considered simultaneously to involve indigenous groups in the process of change.

2. The image of drastic change — in conjunction with other features of the complex situation in different areas — leads to the conclusion that it is very difficult, if not impossible, to design generalized solutions to the mechanisms of utilization of rainforest resources by native groups. Therefore governments and institutions such as the IDB must continually revise their strategies, adapting creative solutions to specific situations. Legislation can be successfully implemented if it is developed in cooperation with the stakeholders involved.

The recommendations made in the last section of this paper are intended to develop the tools needed to find adequate solutions in close cooperation with native communities and their organizations. International cooperation and development lending agencies can strengthen native organizations to enable them to review existing legislation, promote indigenous legal advisory services, and boost their negotiating capacity with national governments and private agents. Indigenous training should be diversified and integrated with development programs, based on the special features of each natural or cultural context in which they are to be applied. It is desirable to involve government agencies, indigenous entities, and international organizations in a coordinated approach to territorial zoning. Conservation programs can be improved through participation by indigenous groups, who can contribute their traditional knowledge. Promotion of a gradual convergence between the native economy and the market economy and the design of financing mechanisms must take account of native cultural characteristics.

CHANGES AFFECTING INDIGENOUS GROUPS AND THEIR ENVIRONMENT

Data on demographic, socioeconomic, and cultural dynamics are presented below to provide a better understanding of changes in native groups and their environment in the main Latin American forested regions. A study is then made of the vulnerability of indigenous groups to the complex impacts of such changes which have led to a steady loss of ethnic and ecological diversity in the areas they inhabit.

Indigenous Population

The study is limited to an analysis of the situation of indigenous groups who have traditionally lived in Latin American tropical rainforests. It focuses on lowland tribal societies, termed "indigenous peoples", "indigenous communities" or "native communities" in the legislation of Ecuador, Colombia, and Peru, respectively (Mertins, 1996), as opposed to the more populous native groups in the Andes where practically no forest is left. It does not cover indigenous settlers who came originally from the highlands, such as the Aymara in the Chapare of Bolivia or the Kekchi in Petén of Guatemala.

The complexity and diversity of the indigenous situation make it difficult to exhaustively catalog the native groups of Latin America, but it is crucial to clarify who are "indigenous persons" with the rights and obligations set forth in each country's legislation. We are dealing with tribal communities who have traditionally lived in the rainforests and who manage natural resources in systems differing greatly from the agricultural techniques of the rural Andean indigenous and mestizo populations who are sometimes referred to as "campesinos". They differ from these Andean native communities and from the urban meso-American civilizations owing to the fact that they live in small kinship based groups dispersed in immense forests, particularly in the tropical lowland of the Amazon. With low population densities, they have obtained or lay claim to land tenure systems that are consistent with their management systems. Traditionally they have followed a vision and moral order that has allowed for the sustainable use of natural resources. Despite these elements, these societies have great cultural and linguistic diversity, which mirrors the rich variety of their physical context and their highly scattered small settlements that limit the power of each tribal group to dominate others (see Smith, 1994, 1996).

For these traditional societies, economic life (the production of goods) has an essentially social purpose, which is to maintain and reproduce ties between local societies. The native communities of the forest understand "economy" in a very different way from urban dwellers immersed in a market economy. Historically they do not seek to amass wealth or to improve individual standards of living, unlike the Portuguese-Hispanic world. The traditional native economic structure is based on subsistence activities to meet basic needs and maintain their way of life. Guided by a moral order which establishes values, norms and kinship based group solidarity trade is based on sharing all material goods (Basso, 1973, Goldman, 1963; Bodley, 1973).

This study focuses on indigenous groups that live in the Amazon basin and certain strategic zones in Central America. Eight countries have territory in the Amazon and Guayana shield: Brazil, Peru, Colombia, Ecuador, Bolivia, Venezuela, Surinam, and Guayana which in the following is referred to as an extended Amazon basin. The indigenous population in the basin is estimated to be approximately 1 million (4.2% of the total population in the Amazon and 0.3% of the total population of the eight countries), and are divided into some 400 ethnic groups. Table 1 gives population data for the Amazon, while Box 1 gives additional information on these groups in the Colombia, Ecuadorian and Peruvian Amazon and native groups in Nicaragua and Panama.

Table 1**Amazon Basin: Territorial Distribution and Indigenous Population
(1973-1997)**

Country	No. of ethnic groups	Estimated indigenous population	Total population	Area in km ²	Percentage of national territory in the Amazon %	Land set aside for ethnic groups in km ²
Bolivia	31	171,827	344,000	824.000	75.00	20,530
Brazil	200	213,352	17,000,000	4,982.000	58.50	744,661
Colombia	52	70,000	450,000	406.000	36.00	185,077
Ecuador	6	94,700	410,000	123.000	45.00	19,187
Peru	60	300,000	2,400,000	956.751	74.44	38,223
Guayana	9	40,000	798,000	5.870	2.73	N.D.
Surinam	5	7,400	352,000	142.800	100.00	N.D.
Venezuela	16	38,670	9,000	53.000	5.78	N.D.
Total	379	935,949	21,763,000	7,493.421	-	N.D.

Sources: Prepared by the author (Tresierra, 1997)

Box 1**Demographic Data on Indigenous Populations in the Tropical Rainforests of Colombia, Ecuador, Peru, Nicaragua, and Panama**

Colombian Amazon: It is believed that 28 (54%) of the 52 ethnic groups have fewer than 500 members; 28% have more than 1,000; and just 11% have more than 5,000 individuals.

Peruvian Amazon: According to the first census of indigenous communities conducted in 1993, the indigenous population numbered 190,295 living in 1,297 native communities in six political-administrative regions in the Amazon. Other estimates suggest that the population is close to 300,000 but they include shore dwellers who are not recognized by the government as indigenous communities, and nomadic groups.

Ecuadoran Amazon: The six principal indigenous groups are believed to have a total population of 94,700. As of March 1991, 20,099 km² had been granted to 13,305 families in 316 native communities.

Nicaragua: The indigenous groups live in the Atlantic macroregion which covers some 57,000 km² (43% of the country) in two autonomous regions — the North Atlantic Autonomous Region and the South Atlantic Autonomous Region (Statute on the Autonomy of the Atlantic Coastal Regions of Nicaragua, 1987). This sizeable area of 551 km² is located around the mouths of the main rivers, lakes, some bays, and large areas of wetlands. Four indigenous people groups have been identified on Nicaragua's Atlantic coast: Miskitos (estimated number of inhabitants: 92,800), Sumo or Mayanga (8,075), Rama (1,404) and Garifona (3,068). Criollos (36,419) and Mestizos (104,217) also live on the coast. Nicaragua is the only country in the region whose constitution recognizes the autonomy of native groups in a large region (that covers almost half of the country).

Panama: Estimates place the native population at about 195,000 grouped into six peoples. They mainly live in the provinces of Bocas del Toro, Veraguas, Chiriquí (Gnobe with 123,085 people, Teribe with 2,194, Bokota with 3,804), Darién (Emberá with 14,657, Wounáan with 2,605), and the San Blas Reserve (Kunas with 47,700) (1990, National Census).

The indigenous groups of the countries (or nation states) mentioned in this study represent a minority of the total population (0.4%). In Panama they occupy one third of the country and in Nicaragua slightly less than one half. Table 1 shows that Peru's estimated indigenous Amazon lowland population of 300,000 is the highest in the Amazon region, followed by Brazil (over 200,000) and Bolivia (approximately 170,000). Indigenous people occupy territory in the Amazon that is larger than half of the combined area of the eight countries that share the basin. Some 15% of the Amazon area is legally set aside for ethnic groups (see table 1). Brazil which has some 67% of the Amazon basin (almost 5 million km²) has set aside approximately 15% of that area for ethnic groups. Of the Amazon countries Colombia has assigned the highest percentage of its area (46%) for indigenous groups.

As the indigenous population is grouped into small isolated settlements scattered over a large area, it has developed great ethnological diversity. This diversity which has suffered considerable losses since the start of colonization. Today's total native population in Colombia is estimated to number some 575,000. When colonization began they numbered between 6 million and 10 million (Tresierra, 1997). Over the entire hemisphere, the native population declined from an estimated 100 million to some 10 million in just one century after the arrival of the Europeans (Tresierra, 1997).

Logging and mining activities in the Amazon began in colonial times. The missions and the slave trade were important factors that determined the location of many modern Amazon societies. However, in comparison with other forested parts of Latin America, the Amazon tribes have remained relatively isolated from the "western" society for a long time (Selverston, 1993). Penetration into their territories has speeded up in the last 30 years (Smith, 1996) and at times is genocidal in its magnitude. The ethnic reduced diversity of the Amazon is also fragile. The average size of a native settlement in the Brazilian Amazon is believed to be 65 people, while the figure for Peru is estimated to be 95. In Brazil approximately 90 native groups out of close to 300 that existed at the start of the century have become extinct. In the Amazon some ethnic groups have a total population of 20 or fewer individuals.

Traditional Indigenous Uses of Forest Resources

The survival strategies of aboriginal communities are the result of a complex mix of biophysical, cultural, historical, and economic factors. It is therefore difficult to generalize about traditional use of the natural resources of rainforests. The variations in the biophysical conditions of Latin American and the Caribbean are largely classified on the basis of macroenvironmental systems. However, research has shown that microenvironmental classification gives a better idea of potential and limitations on forest resource use (summarized for the Brazilian Amazon by Moran, 1993, 1996).

Traditional aboriginal survival strategies focus on the application of succession (rotating uses) for obtaining diverse products. Western systems divide the land into areas for forests, agriculture, and conservation. In contrast, indigenous groups typically combine these activities in time and space. Their most important tools are fire and diversity of species. Through careful use of these tools they have been capable of increasing the productive yield of the desired species of forests while conserving key functions of the ecosystem. Traditional indigenous horticulturists lead a life style that includes conservation of biodiversity as a

condition for survival. The ecological implications of the indigenous slash and burn system and horticulture practices have been studied in detail by Holling (1973, 1986) and Holling *et al.* (1994).

Soil quality determines how long annual crops can be cultivated after the land has been burned off. Perennial crops such as yucca and bananas can also be grown in combination with them. When the annual crop declines due to soil fatigue, succession management is practiced. A myriad of species arises during the successive stages springing from seed that survives in the soil or from trees retained on cleared plots, or carried by the wind or animals. Many species are used locally for food, fibre, medicine and trade before the forest ecosystem begins the process of natural succession. As a result of succession management in small parcels biodiversity is conserved, and in some cases the extension of forested areas has even increased (Alcorn, 1989; Irvine, 1989).

The cultural elements that form an integral part of traditional survival strategies are collective ownership and kinship. Box 2 explains the advantages of a system of common property for the use of the natural resources of tropical forests. Common property management has proven to be most efficient when performed by cohesive groups, characterized by family ties, traditions of mutual assistance and an absence of sharp disparities in wealth (Quiggin, 1993). As this forest management regime is shown to be especially fragile to outside factors of disturbances (de Janvry and García, 1992) it seems to work best in areas facing low migratory pressures and where they reaffirm long customary rights of access and use of forests by local communities (Jaramillo and Kelly, 1998). If forest users are unable to demarcate private areas or if a regional government is unable to enforce property rights legislation, common property systems can provide solutions for management by establishing rules within and between groups of users.

Box 2

Common Property in the Traditional Cultures of Indigenous Groups

The following types of resources have characteristics that make common property the most suitable approach to their management in the context of traditional indigenous societies living in tropical rainforest environments (adopted from McKean, 1996).

1. Non tangible goods such as biodiversity and watershed protection benefits are usually obtained better from intact forests than from heavily used forest resources.
2. The yield of certain products in a forest can vary from place to place in a given year depending on environmental factors and varying states of succession in the slash and burn and horticulture systems. Many tribal groups allow the entire group in an extensive area to use these resources, thereby ensuring equitable distribution of the products.
3. If the activities of one group of resource users entail a cost for another group, a solution is normally enforced under the common property system thereby internalizing externalities. A typical case might be a potential conflict between gatherers and hunters where the gatherers take away plants which would otherwise attract animals that the hunters depend on.

Values, beliefs, and rituals are keys in the traditional survival strategies of forest people groups. A set of rules and a common ethic for the use of natural resources (Alcorn, 1989; Anderson, 1990; Anderson and Posey, 1989; Posey, 1985) is based on the idea that the biophysical environment and human beings are linked together in a chain of relationships (Berkes, Folke and Gadgil, 1993). Unlike western value systems and beliefs, there is normally no clear separation between humans and nature by the indigenous groups. Use

and conservation affect the relationship between humans and other beings, which means that discipline must be exercised by the humans in tapping natural resources. Ritual procedures are a core component for mediating perceived conflicts between humans and other creatures.

To be able to respond to the questions asked in the introduction to this study, it is important to stress that these traditional rules and sanctions are part of a system of beliefs and values and not built into formal institutions. One of the basic values of many native groups is the idea of sharing and restricting the accumulation of goods. Autonomy is another key factor that guarantees free access to forest resources. In each indigenous society, relations with other communities and with nature is the responsibility of small kinship groups.

Exogenous Factors Causing Change

This section summarizes the predatory and destructive activities of external agents that affect the well-being of indigenous groups and often result in confrontation. It also presents some important factors inherent in the communities themselves that can undermine the viability of their traditional strategies for the use of forest resources.

The main exogenous factors that have brought about change in the last 40 years are related to deforestation which destroys the base of the traditional survival strategies of tribal groups. 85% of deforestation in Latin America is confined to the Amazon Basin, whereas the highest deforestation rates (in percentage of total forest area) are reached in Mexico and Central America. Building roads often leads to large settlements by nonindigenous colonizers and the advance of livestock farming. The expansion of pastures for large commercial livestock operations has caused most forest clearing in Central America in the last three decades (Kaimowitz, 1996), whereas deforestation in a large proportion of the Amazon frontier seems to be mainly driven by low-income shifting cultivators (Barbier, 1997; Kaimowitz, 1996) with Brazil showing a mixed picture. Logging and mining concessions are other major factors for change (Smith, 1996).

In addition, drug trafficking and guerrilla warfare have often played determining roles in the region's geopolitics. In populated areas such as Yanasha in Peru's Palcazu Valley it is common to find forces from one faction or another who terrorize the local population. This also affects the feasibility of implementing external support programs for the community. For example, a biodiversity conservation project with the Yanasha supported by GEF-UNDP is virtually paralyzed, with one of the reasons being the lack of security in the community. Other countries in the Amazon and in Central America are also affected by violence of this kind (Van Cott, 1994).

Road Infrastructure and Advances of Agricultural Frontier

Whether in the Lacandon Forest in Yucatán, Mosquitia in Honduras, Darién in Panama, or the tropical forests of any of the countries sharing the Amazon basin, roads are a reality of the advance of the world trade linking producers and consumers through ever-larger systems. In some areas this goes back a long way. Over 50 years ago in Mexico an entire road system was built in the Chiapas hills, followed by one in Oaxaca and one in Merida. Today the consequences of acculturation and economic absorption by the market of Indian groups in these areas are evident.

The trans-Amazon highway led to ecological disruption in the habitat of tribal groups as well as sociopolitical disruption that induced the Brazilian government to pass laws to control the advance of the market economy and to respect the rights of aboriginal communities, including securing their right to have an access to their traditional habitats. Although highways are an essential factor for development, in Latin

America they have led without exception to deforestation and degradation which according to Dourojeanni makes them to the main threat to biodiversity (Dourojeanni, 1997). This notion is supported by the evidence of studies that confirm the strong link between deforestation and road construction (Chomitz and Gray, 1996; Alston et al., 1995; Mahar and Schneider, 1994). Box 3 presents the situation in Darién in Panama.

Box 3

Road Construction in Darién, Panama

One particularly acute case is Darién in Panama on the border between Central and South America. The government is considering to pave the existing highway to Darién and to build access roads in the area. The highway would run to Yaviza (70 km from the border with Colombia). Indigenous organizations and other groups fear the risk that the final section would be built soon to the border to link the Americas. The impact of this road on the ability of native groups to make sustainable use of forest resources could be significant. The cultural and ecological impact will be even greater and the economic changes will redefine the productive relationship between agriculture and forestry in the country and in the region. There is nothing wrong with this in itself. What is questionable from the standpoint of indigenous organizations is that the economy, the ecology, and the culture may center around the highway instead of having the highway form part of the broader context of the economies and cultures of the people most directly affected.

The agricultural frontier is advancing in all the countries of the region. Land used for crop and livestock farming has become depleted and farmers are seeking new areas. In Panama, for example, the central provinces are suffering from critical deforestation which has led to mass migrations to Darién where, using the spaces opened up by the Pan-American Highway, more and more farmers threatening to penetrate into protected areas and native reserves. The absence of efficient territorial demarcation favors the advance of these fronts and their use of land that is not apt for crop or livestock farming. Similar cases are occurring in Mosquitia in Honduras, Petén in Guatemala, and all parts of the Amazon rainforest. Squatting on private land — often large estates — has increased rapidly in many Latin American countries since the 1950s (Mertins, 1996). The illegal occupation, clearing, and usage by spontaneous colonists corresponds to some 53% of deforestation in the Brazilian Amazon and approximately 77% in the parts of the Amazon belonging to the Andean countries (Mertins, 1991). Kaimowitz (1996) argues that if farmers in settled areas have access to secure property, this should facilitate agricultural intensification and employment generation. Hence, tenure insecurity in agricultural lands indirectly leads to deforestation as it prevents a more rational and labor-intensive use of lands that could reduce migratory pressures to the frontier. It is estimated that less than 50% of farmers in the region have legal title over their lands (López and Valdés, 1997).

Strong markets for beef and dairy products and large government subsidies in many countries in the region stimulated livestock expansion and deforestation in the 1960s and 1970s. Since then credit subsidies have been reduced but pasture area continues to expand in the humid tropics of Latin America. Studies show that cattle ranching is seldom a highly profitable activity for the farmers without subsidies. However, converting forest into pasture has often been a means of claiming land for speculative purposes and securing land titles. Cattle on deforested land demonstrates land possession, thus discouraging squatters and avoiding the threat of agrarian reform action designed to put "idle lands" into use (Kaimowitz, 1996). Deforested lands usually sell for much higher prices than forested lands. Ensuring tenure security by forest clearing and cattle ranching especially in agricultural frontier areas is used also as a hedge against inflation in the context of rising real land prices. As a result the majority of the estimated 75 million hectares of forest lost in tropical Latin America between 1981 and 1990 became grass lands (FAO, 1993).

The Darién region in Panama deserves special mention for exceptionally low levels of forest clearing due to many years of restrictions on cattle raising in the province designed to avoid the spread of hoof and mouth disease from nearby Colombia (Kaimowitz, 1996).

Mining, Petroleum, Logging and Tourism Concessions

For centuries the wealth of the tropical rainforest was ignored by the European settlers and left to indigenous groups. This has changed rapidly in the past few decades. One of the activities that has seen the largest growth in forested areas is the exploration of renewable and nonrenewable resources carried on by outside agents.

In Amazon countries such as Colombia, Ecuador, and Peru much of the fossil fuel exploration and production is carried out on concessions that either border on indigenous territories or lie within them. In many cases, ambiguous legislation on the use of the subsoil allows exploration to proceed without suitable consultations with the affected native groups. Indigenous organizations complain that neither cultural nor environmental impact studies have been performed and that the projects lack mechanisms to compensate the affected people. The predicament arises from two types of opposing interests: those of national development through fossil fuel exploration and production and those of native groups who see their potential for survival shrink owing to the impact on the environment and on their traditional resources. Box 4 gives examples of the conflicts caused by this plight.

Box 4

Conflicts between Mining and Petroleum Industry and Indigenous Groups

In many cases no mechanisms for conciliation are in place to permit the parties to negotiate their positions. Conflict prevails and translates into legal litigation or, in extreme cases, into physical confrontation. Some current examples include:

Ecuador: Legal litigation against Texaco by environmental NGOs and indigenous organizations has continued for several years in the Amazon with no settlement in sight.

Colombia: Frequent confrontations have taken place in areas where gold and oil are exploited by international companies. For example, guerrillas have frequently bombed the oil pipeline between Arauca and the Caribbean coast, causing spills of over 1.5 million barrels along 115 km of fragile ecosystems.

Panama: 67 concessions for metal mining and 38 applications for nonmetal mining are reported in Darién alone. The Mineral Resources Branch of the Ministry of Trade and Industry continues promoting private investment in mining. The Ngobe-Bugle communities affected by copper mining in Cerro Colorado have protested vigorously against these government practices.

Despite legislation to protect wood resources, logging continues at high rates in many Latin American countries. In most cases, access roads built by logging companies facilitate the advance of the agricultural front and concession holders are often unwilling or unable to prevent the migration of slash and burn farmers (World Bank, 1995). In the Darién forests, the cativo (*Prioria copaifera*) which has formed large, homogenous forests, is on the verge of extinction as it is also now logged inside the Darién National Park. Indigenous groups themselves are often responsible for deforestation, since they use the forest as a source of quick income to respond to market demands. In some cases they take advantage of legislation intended to assist them in obtaining ownership of forest by selling logging rights to third parties results forest

degradation. The community logging permits issued to regional authorities in Panama and negotiated with middlemen are a typical example.

Ecotourism has recently become an attraction in the forested areas of Latin America and the Caribbean. There are successful examples of indigenous groups managing tourism in their territories, such as the Kunas in Kuna-Yala who act as ecotourism guides in the San Blas Reserve. However, there are other cases where tourism operators turn their backs on indigenous rights, such as the Yaguas in Iquitos. In some government concessions to foreign companies to develop ecotourism, native people are seen as "folklore", in the negative sense. Properly managed, ecotourism could undoubtedly be a source of income for native groups if they had official government support, trained personnel, and the capital to develop the necessary infrastructure.

Conservation and Indigenous Groups: Conflicts and Common Interests

Up to the 1960s, environmental protection was the dominant doctrine of conservation organizations that identified preservation as the main instrument, excluding human activity from protected areas. Many conflicts have arisen because the goal of establishing strictly protected areas contravenes with the traditional values of many indigenous groups, whose objective is the harmonious coexistence of humans and forests, based on sustainable use of the resources. Native organizations raise the criticism that as protected areas have expanded, the viability of their traditional forest use strategies has declined owing to their loss of access to resources.

Today, most conservation units permit the presence of humans and the sustainable use of natural resources. The approach to biodiversity conservation has also shifted from individual species to large continuous habitats. This has led conservation organizations and international lending agencies to work together with native groups to ensure land tenure and promote systems for the sustainable use of resources. Generally speaking, strictly protected reserves are only established in uninhabited areas. In other cases, in Brazil and Peru, indigenous groups are allowed to remain and national parks may not be located on indigenous reserves. However, the establishment of protected areas — in the Brazilian Amazon, for example — can restrict the life styles and traditional extensive uses of natural resources by the native groups (Kohlhepp, 1991; Mertins, 1996).

Indigenous groups are often given the opportunity of participating in conservation, but according to their organizations they are very rarely permitted to demonstrate that their survival strategies can be tools for conservation. Therefore they obtain autonomy in management, administrative control over conservation units, or property rights over ecosystem resources.

Some institutions, such as the IDB, assume in their programs that use of forests by indigenous groups can achieve two goals: the conservation of diversity, and promotion of the autonomous development of those groups. This view was recognized by the Bank's Environment Committee when it adopted procedures and strategies based on the idea that traditionally most "indigenous peoples practice sustainable, nondegrading use of forests which is closely linked to their sociopolitical organization and their world view" (IDB, 1995). The report adds that: "Indigenous peoples should be recognized as natural allies in the search for solutions to protect the environment". IDB's support for the autonomous development of native groups is based on two premises: (1) projects must be sustainable over the long term and consistent with indigenous values and priorities; and (2) indigenous groups have the right to property and to act as executing agents for projects that affect them (IDB, 1995). There is a growing debate over the validity of dividing projects into "productive" projects based on the market economy and "conservation" projects. However, with changing values and lifestyles in the communities conservation may not automatically result from indigenous productive projects. "Conservation of resources by indigenous peoples was the result of a subsistence

economy. In the extent to which native groups begin to participate in the market economy, their resource-management systems change, resulting in the loss of biodiversity and the destruction of forested areas" (Alcorn and Toledo, 1995).

Both indigenous organizations and their critics can offer documented evidence to support their respective positions. The complexity of the issue makes across-the-board solutions impossible. Tackling the loss of biodiversity and of ethnodiversity by setting aside areas for extractive reserves, such as Brazil has done, is one option. Today such reserves where harvesting is allowed cover 1% of the Brazilian Amazon (see Box 5). However, the main problem of the concept of extractive reserves is the low value of virtually all non-timber products and services of forests (Southgate, 1997).

Box 5

Extractive Reserves in Brazil

Extractive forest reserves have been set up both among indigenous and nonindigenous groups. The main activities in these reserves have been tapping rubber trees and gathering nuts.

The Pimental Barbosa native reserve of the Xavante people is located in the upper Xingú river watershed in the state of Mato Grosso. In the 1970s the zone felt the impact of the expansion of the agriculture frontier and livestock farming. In 1990, the Xavantes began to work in cooperation with the Goiania Indigenous Research Center, conducting studies to determine the boundaries of Xavante territory and to identify the productive potential of the forest jungle. In 1993, the Xavantes built a modern processing plant in Xavantina and bought 30% of their fruit from their own people and the remaining 70% from other Brazilians. The project has attracted significant financial support from conservation organizations and commitments from Europe to purchase the products.

The Jurua forest use reserve was one of the first established in Brazil for rubber tappers and other local inhabitants. It is located in the state of Acre at the headwaters of the Jurua river. The forest on which the rubber tappers depended for their livelihood was being encroached by livestock farmers. In an effort to protect the forest, leaders of the rubber tappers union such as Chico Mendes brought pressure to have traditional community forests protected. Once the idea was accepted by the Brazilian government and financed by international conservation agencies, the traditional forest dwellers obtained the right to earn profits from forest products. The state retains the right to have the final say in forest management.

The diminishing market value of non-timber forest products, as well as organizing a dispersed population with little cooperation experience have been characterized as the main problems of extractive reserves created by the Pilot Program for the Protection of Brazil's Tropical Forests in 1992 (Hardner and Rice, 1997).

Sources: COICA - OXFAM America, 1996; Reserva Extrativista do Alto Juru, 1994; Hecht and Cockburn, 1989.

Endogenous Factors Causing Change

Social Aspects

Population Growth and Settlement. In many Latin American countries the zones with the fastest population growth rates are inhabited by indigenous groups. No statistics are available to evidence the reasons for this growth, but it appears to be mostly the result of the arrival of nonindigenous people rather than natural growth in aboriginal communities. Nonetheless, the birth rate in indigenous communities is considerably

higher than the national average and despite the fact that infant mortality is also high, the final balance is a relatively fast growth rate. The global fertility rate in the Peruvian Amazon is an estimated 7.9 children, which is more than double the national average of 3.4. However, growth in the indigenous population is compensated for by heavy migration away from the communities. Only few ethnic groups disappear physically. In most cases they are culturally absorbed into nonindigenous urban cultures.

In some cases the settlement of nomadic groups in permanent communities, in areas such as Darién, Petén, Mosquitia, and the Atlantic coast of Nicaragua, has placed pressure on the land around the villages. Population growth and the permanent settlement of native groups that have turned to farming can outstrip the productive capacity of the soil in tropical rainforests. Attempts are often made to overcome low productivity through the use of agro-chemicals and "modern" agricultural techniques, which have only increased yield temporarily and have created a serious medium-term problem of lack of sustainability. Being absorbed into the money economy, the need for liquidity frequently forces indigenous people into unsustainable use of forest resources, worsening their environmental and economic situation. In many cases they leave farming and natural resource management and go to work as laborers for logging or mining companies, living outside their native groups. They therefore become part of the problem, since apart from contributing to the loss of biodiversity through their new activities, they abandon their traditional way of life and cultural identity, a process which ultimately leads to a loss of ethnodiversity.

Low Educational Levels. Historically, education for indigenous groups in Latin America has involved acculturation and has ignored their traditions and own culture. Education in the Peruvian Amazon, for example, has not been a government priority despite its legal obligation, and most schools have been run by religious missions. Regardless of the agents involved, it is unfortunate that the values of native groups have not been included in the education systems, and a number of authors believe that this has contributed to a large extent to the gradual loss of their culture (Jiménez Turón, 1984).

It is estimated that the indigenous population of the Peruvian Amazon have an illiteracy rate of 55% which is more than four times the national average of approximately 13%. Similarly high illiteracy rates in many Latin American native communities affect their potential for institutional and organizational development. The negotiation and consolidation of their rights and the promotion of economic alternatives requires minimum levels of education because it involves the interaction with the government, with national society, and with different external agents such as private companies and development agencies.

Scant education limits indigenous people's options for diversification into other work than farming, unless they emigrate to cities where they generally end up swelling the ranks of the urban poor. They are typically confined to be farmers with low income levels caused, among other things, by low agricultural productivity. Natives often lack the technological capacity to produce the quality demanded by the market and are subject to exploitation by middle men due to deficient education.

Organizational Weakness. In general, indigenous forest dwellers have organizational structures that group the vast majority of their members together. It is estimated that in the Amazon, these organizations cover about 70% of the native population. Organizations also abound in the countries of Central America with significant native populations. In Panama, the main groups live in reservations (comarcas) where they act as local authorities and defend their rights through local, national, regional, and international associations. From the grass-roots native groups to the international community there are a host of indigenous organizations that respond to the needs of their respective members. The myriad of organizations on different levels and their broad-based membership has not, however, translated into successful defense of their interests. Although they have achieved some legal and political recognition of their demands, with few exceptions they owe their successes to strategic alliances with nonindigenous groups (mainly NGOs), rather

than to their independent efforts.

Part of this weakness is explained by the lack of linkage between the higher level organizations, such as the Indigenous Coordination Association of the Amazon (COICA), and the grass roots. This absence of organizational continuity caused a crisis in the World Council of Indigenous Peoples, which has been hobbled and unable to realize its potential. Indigenous organizations are at a crossroads. To be effective in defending their rights, leaders have to leave their forest communities and go to the capital cities. The physical distance means that the organizations (or their leaders) generate their own dynamics that are more in accordance with the demands of urban centers and government bureaucracies than the needs of their members. Distance undermines representativeness.

The legitimacy of the leaders themselves is sometimes questioned. Traditionally there were no democratic mechanisms for the election of leaders of kinship. The transformation of these structures to a genuine representative community organisation is a difficult process. As a consequence it has been argued that external agents in governments and international organizations should train academics who will act on behalf of the communities without claiming to represent them. However, these agents may widen the gap between grass roots and higher echelon entities by allocating cooperation funding to the organizations at the apex rather than to the local communities they are supposed to work for. Indeed, it has occurred in the past that the stiff competition for funds among native organizations, has led to the widening of the gap between organizations and their base, and has even led to the demise of some organizations.

Native groups and their entities have participated in international arena, for example in the United Nations negotiations on the rights of indigenous populations, in the ILO Convention concerning Indigenous and Tribal Peoples in Independent Countries (Convention No. 169), in the Rio Earth Summit in 1992 (UNCED), in the Intergovernmental Panel on Forests, in the Convention on Biological Diversity, and in the Special Session of the United Nations General Assembly on Environmental and Sustainable Development. Despite the international recognition obtained as a result of these negotiations, many natives emphasize the importance of working at the grass root level and prefer to use any available funds for local projects (European Commission 1997).

Box 6

Indigenous Organizations

Indigenous organizations were initially established on the basis of geographic areas for productive purposes and based on kinship or affinity. Later, with the incursion of external agents such as settlers, livestock farmers, coca growers, and oil and logging companies, supracommunity organizations arose as a platform for protecting threatened land, territories, and resources. Organizations with broader political mandates to protect native rights arose from these efforts. Policies common to all these organizations include protection for indigenous territories, life styles, culture, health, and the right to self-determination.

In many countries in Latin America, national legislation promotes the advancement of community organization. In Peru, for example, legal recognition of the communities, including land titling, mobilized indigenous peoples to present their claims. Today in Peru alone, some 1,300 native communities are grouped into over 50 regional organizations which, in turn, are mostly affiliated with two national organizations (AIDESP and CONAP). They have banded together with similar movements in the other Amazon countries to form the Indigenous Coordination Association of the Amazon (COICA). A process has been launched in Ecuador to integrate the organizations of a given ethnic group, for instance the different Quichua federations, in an umbrella group representing the entire Quichua people (Confederation of Indigenous Peoples of the Ecuadoran Amazon - CONFENIAE).

Source: CEREC, 1993.

Another element to be considered in the organizational weakness of native communities is the lack of technical capacity for their leaders who are at a disadvantage in negotiating with oil or mineral companies with respect to the use of natural resources in their territories. Often there is no division of functions inside the organizations and the political leaders are responsible for administering resources in addition to negotiating. This amalgamation of technical, financial, and political aspects, and the concentration of power has led to many problems regarding the transparency of the organizations' financial operations. Last, there are few native lawyers to advise their organizations and even fewer qualified nonnative lawyers willing to donate their legal services. Given the current defects in legislation and unsatisfactory enforcement of the law, legal advisory services are very necessary. Also owing to the lack of training, indigenous organizations are often unable to benefit from investments in tropical rainforests made under government projects, international cooperation, or government concessions to foreign companies.

Over and above these serious problems, many native communities are continuously subject to divisiveness over issues that are foreign to their cultures (political parties, religious sects). This has an impact on the representativeness of their organizations and limits their action capacity.

Economic Aspects

The Vulnerability of Indigenous Groups to Market Forces. Today's changes affect all aspects of the life of native groups and occur with a speed and intensity that has generally not permitted them to adapt well. The question then becomes what real possibilities exist for indigenous peoples to establish sustainable relations with the market economy, able to satisfy their new material needs without sacrificing their economic security and the resource base for future generations?

The rapid changes in the Amazon described in Box 7 are applicable in general to forest-dwelling indigenous communities. In the social sphere they move from almost complete isolation to conflictive contact with the dominant society. In Darién, up to the end of the 1960s the Emberá and Wounáan communities lived in relative isolation from the rest of Panamanian society. Until the early 1970s a significant part of the Emberá-Wounáan population continued to live a nomadic life. They only began to establish contact with the urban market after the construction of the latest section of the Pan-American Highway to Yaviza.

Box 7

Rubber Bosses in the Amazon

In the last 30 years the Amazon has been gradually incorporated into the economic and political life of the nations in whose territory it lies. From the demographic standpoint, the population of the Amazon basin has risen from an estimated 9.7 million in 1960 to approximately 29.3 million in 1990. This growth is concentrated in urban areas but frequently spills over into rural areas as well. From the sociopolitical standpoint, until the early 1960s most native groups in the Amazon lived according to their traditions in isolation from nonindigenous society, interrupted only by sporadic contacts with the market economy (Smith, 1966, 99). Two institutions played an important role in their lives: the "bosses" and the "missionaries". The former exploited native labor or acted as middlemen between the regional market and the indigenous groups, and the second engaged in proselytism. There was no formal education and the dominant languages continued to be local. Politically, the Indians had no concept of being citizens of a country, which was the view of civil society as well. Therefore no value was attached to indigenous rights or to their condition as citizens of a nation state.

The main rubber era came to an end after the Second World War. Rubber tapping, dominated by the "bosses", became less profitable and they left in search of better financial prospects. This affected the economies of the Amazon Indians who depended on rubber to buy market goods and forced them to seek other means of raising their income. Almost all native groups in the Amazon have acquired direct relations with the market economy. They have now links with government structures on which they depend to satisfy their basic needs. The contact has been also necessary for the formal recognition of their rights. The language of the colonizers now dominates and native languages are used only in the homes..

As a result of massive investments by governments and private companies in the development and settlement of the Amazon starting in the 1960s, change has become and continues to be inevitable for indigenous groups. But in the Amazon, changes that had taken centuries to complete elsewhere, occurred from one generation to the next.

Source: Smith, 1996.

In recent years, and particularly in the last three decades of this century, international cooperation has contributed significantly to the development of indigenous groups through funding for projects of different kinds. In this same period, national and international legislation has been passed, in theory, to protect the rights of these peoples, including their territorial rights and the right to autonomous development. Despite these efforts, the most impoverished areas of Latin America today are those inhabited by indigenous peoples (Deruyttere, 1997). This observation leads to the following question which is central to this study. Which elements of the legal initiatives of the countries and international financial cooperation should be improved to make indigenous communities less vulnerable?

When native groups who have been incorporated into the market economy become depreducers of resources like any other external player, their subsistence activities become even more restricted. Hunting, fishing, and controlled slash and burn farming are no longer possible on a large enough scale to generate the desired

income. As the income requirements increase and the bases for survival decrease, solidarity among the members of the native groups also declines and in many cases the values on which this life style was built disappear. The moral base itself erodes, often leading to high alcoholism and suicide rates.

Contact with modern civilization through television, advertising, and consumerism changes values, replacing traditional ones with the aspirations of modern society. In many cases the aboriginals cannot match these new aspirations, given the absence of viable economic options owing to the lack of infrastructure in the forest and low levels of education. The result is often the feeling of economic and cultural inferiority when compared to the industrial society. Coupled with ever increasing restrictions in the access to the natural resources of the forest, the situation aggravates the change in values and the gradual loss of traditional knowledge.

The employment pattern where the indigenous population are frequently integrated as labor in development and conservation projects (affecting them, instead of them having control of these projects) usually leads to consumerism. They are remunerated in cash and the money is spent, for example, on expensive clothing or on household items such as television sets or VCRs.

A range of different reasons accounts for the wide-spread phenomenon of consumerism among aboriginal people: (1) In the economic and cultural context of the rainforest money is not as productive as in urban environments but instead serves mainly as a vehicle for consumerism. (2) Criticism is often voiced that the flow of money is not linked to the absorption capacity of indigenous groups. Many indigenous are not used to handle modern market economy tools. As beneficiaries of international cooperation who are living in the context of their traditions and native economic rules they are frequently not able to adequately manage the funds. Even in successful productive projects, earnings are often not re-invested. (3) The native groups in remote rural areas have no access to banks and savings are not institutionalized.

Loss of Control over Natural Resources. Like all other poor Latin Americans living in forested areas, indigenous people suffer from the general problem that capital for investments often do not trickle down to the local communities because the investment produces no local spin-off in trade and business. Moreover, in their search for quick returns on their investments, investors do not consider sustainable alternatives.

In the past, financial need has often led governments to grant concessions over natural resources, with little consideration given to their capacity to recover. Short-term returns impede sustainable long-term production because natural resources are depleted. These characteristics — lack of linkage with the local economy and lack of sustainability — which are common to many investments are used by indigenous organizations as arguments for reclaiming control over natural resources and maintaining their territorial integrity.

Market forces and internal factors such as population growth, the settling process, and changes in values result in a growing need for monetary income to pay for the goods and services offered by the market. In general, native groups have scant control over the use of natural resources surrounding them owing to the actions of external agents such as logging, oil, and mining companies, prospectors, and colonizers who exploit the means that native communities need to survive.

In most cases, public and private investments reach the tropical rainforest disassociated from indigenous groups or may cause them to get alienated from their traditional ways of life. Foreign capital is mainly invested in large energy projects, in fossil fuel production, mining, and logging, and in road construction. Such projects require construction workers, unskilled labor for oil and gas production, service personnel for ecotourism, and occasionally native informants for bioprospecting. Investors have chiefly looked on

aboriginal groups as obstacles to their plans and have made no attempt to assist them in maintaining control over natural resources.

Conflict Between Social Structure and the Modern Economy. Weak indigenous organizational capacity often counts for the inability of community organizations to successfully deal with market or government agents foreign to the local culture. The natives often do not have enough money to improve their competitiveness or do not produce sufficient volumes to be competitive. Economic disruption and lack of access to natural resources have frequently made it impossible for them to continue their subsistence economy while not permitting them to enter the market economy. In this socioeconomic vacuum, many native groups have sought options to permit them to continue enjoying access to their resources and to use them in a way that is consistent with their culture. When indigenous groups acquire territorial rights, many times their declared aim is to establish development models that connect their productive activities with the national market economy in terms that are profitable, sustainable, and environmentally suitable, while also preserving native values.

The aboriginal tradition of common ownership has been identified as an additional reason for the failure of some economic cooperation projects. As individuals and families become successful in their new economic projects, social pressure is brought to bear on them to share their profits. Since most of their activities require some capital accumulation in order to have reserves for investments, it becomes difficult to manage a business successfully under the system.

Pressures of this kind have historically existed whenever native groups trade surpluses with other groups. In the past, one solution was a separation of people who engaged in trade from the rest of the community. Alternatives have been sought to solve the problem, and the challenge is to find a solution that is acceptable to the majority of the community. Box 8 gives an example of the so-called "entrepreneur's dilemma".

Box 8

Peruvian Amazon: the Bora-Huitoto and the "Entrepreneur's Dilemma"

AIDESP (Inter-Ethnic Association for the Development of the Peruvian Jungle) realized early that the key production unit of newly established microenterprises was a home or a family. One Bora family operating a microenterprise wanted to produce blocks of sugar processed from sugarcane juice. The family knew the production process through the experience of older family members who had worked for larger producers. A small loan permitted it to buy the basic equipment necessary to produce sugar. In a few years the family was producing and selling it in the departmental capital and in its opinion, it was making satisfactory returns. As the family became more successful, rumors began to spread about it. After two deaths in the family attributed to spells cast on it by other members of the community, the family halted the business.

This is a common feature of businesses undertaken in native kinship based groups where well-established social rules exist for sharing, distributing surpluses, and reciprocity. The "entrepreneur's dilemma" was named after this family. Unless sociocultural rules change in the community, families and individuals must find a way of harmonizing the rules with commercial achievement if they are to operate successful microenterprises.

Source: FECONA/AIDSESEP microenterprise project.

Kinship is an important factor in many indigenous survival strategies, since the extended family is the forum for decision making and the production unit. Natural areas are often allocated to distinct family groups. Political and administrative authorities and institutions imposed relatively recently are expressions of

government policies. The assumption that native communities or their regional organizations, rather than families, are able to make decisions regarding natural resources has led to the failure of many development projects, particularly in forest management.

The intensive contact that tribal communities are experiencing with the values and beliefs that prevail in industrialized countries leads to growing internal tension as some individuals in the community try to adapt to changing economic and environmental contexts while others want to conserve their traditional ways of life. Most native organizations stress, in this regard, that indigenous beliefs can provide the ideological basis for autonomous development. From their standpoint, these traditional values and beliefs should be nurtured and respected rather than being diminished by education based on western values.

CHANGES IN LEGISLATION CONCERNING INDIGENOUS GROUPS AND NATURAL RESOURCES

The globalization of communications, recognition of the value of ecosystems in vast geographic zones such as the Amazon or the Chocó, and the increase in international trade have a significant impact on the process of internationalizing social, economic, and political relations. These trends have led to a growing body of national legislation and international conventions and indigenous groups are aware of them. They have established alliances and confederations that go beyond national boundaries and have organized groups to advise international development agencies on projects such as a program for sustainable development in Darién, Panama.

The international community recognizes the historical presence of native groups and attempts to support government efforts to protect and promote their rights. Extensive legislation on indigenous communities and their rights has been promulgated in recent years. Some of these legislative initiatives and a number of international declarations on the rights of indigenous groups are mentioned in the Annex.

The history of indigenous legislation on the national level is broad and very complex, peppered with many ambiguities and contradictions. In the last 30 years significant progress has been made in the formal and legal recognition of certain native rights. This progress has been enshrined in the constitutions of several countries and/or in special legislation (see part B of the Annex). However, in many cases recognition is simply a formality and the spirit of the law has not translated into tangible achievements.

Mertins (1996) concludes that there are presently two trends in land-use rights for native communities. In countries with large indigenous populations such as Bolivia, Ecuador and Peru, acceptance of the rights of lowland Indians is growing, despite the lack of a legal framework for those rights. However, in countries with small percentages of indigenous groups of the total population (Brazil and Colombia) and where there are other strong pressure groups claiming land, compliance with land use rights is very poor (Mertins, 1996; Gawora and Moser, 1993).

Land Ownership

Government legislation concerning indigenous groups focuses in particular on the definition of their territories and on their right to use the resources in those territories of legal boundaries.

With respect to the size of indigenous territories, legislation is often contrary to the world view and traditional practices of these people. As hunters, gatherers, and traditional shifting cultivators they have to cover significant tracts of land. They have developed patterns that adapt to natural cycles and to the resources available. Traditional indigenous horticulturers lead a life style that includes conservation of biodiversity as a condition for survival. Therefore it is often superfluous to work out minimum land allotments as a way of determining the amount of land required by a traditional indigenous group. In general, forest dwellers claim a territory as their own based on myths rooted in a rich tradition of customary law. This customary law is functional from the standpoint of the traditional indigenous economy which — under original conditions — includes conservation practices.

With respect to the right to use natural resources, in the best of cases there is a contraction between the spirit and the letter of the law. As Annex A shows, there is a relatively solid legal base backing the right of native groups to the use of renewable natural resources on their land and to active participation in resource administration and protection. This legislation established only in recent years in some countries, includes

powers and rights over renewable natural resources which are novel in the Amazon and in Latin America itself. They include the exclusive right by native communities to use the resources of the rivers and lakes in their territories, contrary to earlier situation where these resources were considered to be of public domain. However, even the adoption of comprehensive and harmonious legislation on the aspirations and claims of native communities and their organizations has been unable to slow down the destruction of natural resources in their territories by external agents.

Recognition by national governments of the culturally distinct nature of indigenous groups has led them to recognize the right to the land by natives, giving them different degrees of autonomy over it. In the Amazon, the legal right of ownership of some 500,000 km² has been transferred from the state to indigenous people in recent years. This figure includes 90,000 km² transferred by the Brazilian government to the Yanomami, 27,000 km² to indigenous groups in Ecuador's Amazon, and 180,000 km² to Colombian Amazon groups (see Box 9).

Box 9

"Unoccupied Land" in Colombia

Despite some ambiguities in the concept of "unoccupied land", Colombia has established 254,473 km² or 22% of the country's territory as 264 native reserves. Most of the land is located in Colombia's three low land regions (the Amazon, the Orinoco and the Pacific coast) where forest based indigenous communities have traditionally lived. In the Amazon, an estimated 78% of the native population has received legal recognition of their territory, with the figure being approximately 86% in the Orinoco, and 63% on the Pacific coast. In the three regions taken together, 84,115 people out of a total population of 138,993 have received property titles covering 187,245 km². The government has confirmed the legal occupation by native groups in 74% of remaining public land in these regions, corresponding to an average of 222 ha per person.

One of the mechanisms for recognizing land claims by indigenous groups is to transfer so-called "unoccupied land" to them as collective property. This land has been understood to have belonged to the State before the transfer. A large number of laws has acknowledged that the State has the obligation to recognize indigenous communities as full owners of the land they traditionally occupy, and that the legal transfer of it to the communities is not a discretionary or voluntary act of the government. Therefore, it would be more correct to say that to adjudicate land to native groups is not really a "transfer" of ownership but "confirmation of their earlier ownership" (Roldán, 1993).

In Ecuador the six main indigenous groups in the Amazon comprise an estimated total of 94,700 individuals (see table 2). As of March 1991, 20,092 km² had been confirmed to belong to 13,305 families in 316 native communities (66,525 people or 70.2% of the indigenous population) (CEREC, 1993).

Table 2

Ecuador: Confirmation of Land Ownership by Indigenous Population in the Amazon

Group	Estimated population	Territory (km ²)
Quichua	48,000	4,000
Shuar	42,000	7,570*
Achuar	2,400	
Huaorani	1,200	8,800
Siona-Secoya	600	404
Cofan	500	158
Total	94,700	20,932

Source: J. E. Uquillas and S. H. Davis (1992: 112).

* Land transferred jointly to the Shuar and the Achuar.

The 1973 Indian Statute of Brazil confirms the protection and legal integrity of indigenous lands. The 1988 Brazil's constitution recognizes the original rights of Indians to the land they have traditionally occupy (article 231). These lands are to be held by them permanently and they are given exclusive use rights. It should be stressed though that the law does not give them ownership of the subsoil, or the rivers and lakes on the land, and that the land is considered by the constitution to be an asset belonging to the federal government (article 20).

The constitution established a period of five years (to 1993) for demarcating the boundaries of those lands (article 67). However, by 1993 just 196 (37%) of indigenous territories had been legally recognized, 93 (18%) had been investigated, and 147 (28%) were in the analysis stage. Even this modest progress was mainly due to national and international pressures and protests to the slow action in the legislation process (Mertins, 1996; Gawora and Moser, 1993).

In Venezuela, the native population of the Amazon and the Orinoco lowlands was an estimated 78,160 in 1991. Of them, approximately 8,500 people (10.9%) held a titled area of 819,117 ha. In Bolivia the native population in the Amazon was an estimated 158,000 in 1991. Of them, some 13,500 people (8.5%) had a titled area of approximately 1,927,000 ha. (CEREC, 1993). Box 10 explains the situation in Peru.

Box 10

Legislation Governing Indigenous Property in Peru

Peru's constitution of 1993 gives broad recognition to the rights of forest-dwelling tribes to land ownership. It contains principles with respect to the cultural identity of rural and native communities. The earlier constitutions of 1933 and 1979 had already recognized native communities in the forest as "autonomous juridical persons in their organization, communal labor and land use, and in economic and administrative aspects, within the framework established by law". In the constitution of 1979 the indigenous lands were "imprescriptible and inalienable". The current constitution indicates that land ownership is inalienable except in the event of abandonment (Art. 89).

It is estimated that only 673 of the 1,000 native communities in Peru have had their land demarcated and titled in ownership (22,488 km²), with another 8,403 km² ceded in use. However, it is estimated that some 80% of those 673 communities, with a total of 21,578 families, do not have sufficient land for sustainable use of the forest and subsistence farming. On average each family has 104 ha.

Based on Aztec systems, the 1917 land reform in Mexico established the cooperative farming system (*ejidos*) which determined land ownership and use for indigenous and nonindigenous people. In general, less fertile areas are used communally for grazing and logging of the forest, while the more productive land is inherited by family members, but may not be divided or expropriated (Schewigert 1989; Mertins, 1996).

In summary, considerable progress has been made in the relationship between states and indigenous groups. The multiethnic and multicultural nature of Latin American societies has been enshrined in constitutions and regulated in laws. Ideological and legal recognition has translated into territorial recognition. Extensive areas have been transferred legally to native communities who have traditionally occupied and used them.

In countries such as Bolivia, Brazil, Colombia, Ecuador, Nicaragua, Panama, and Peru geographic areas under indigenous jurisdiction have been set aside as "reserves", "native communities", "autonomous regions", or "territorial units". On the basis of legislation it might be concluded that the land claims of native groups have been recognized as legitimate and that governments have responded decisively. However, that conclusion is premature, since not all the lands claimed have been recognized, and not all the land that has been granted can be used freely by its indigenous occupants.

Minerals and Fossil Fuels

Legislation on the resources of the subsoil is one of the most difficult legal areas with respect to interpretation and enforcement. On one hand, in all Latin American countries the government retains the right to use resources such as minerals and fossil fuels, above the rights of any other social actor. However, in the case of native groups, legislation has been passed that places certain limits on absolute ownership by the State. The cases of Colombia, Panama, and Peru illustrate the complexity of the issue (Box 11).

Box 11

The Native groups of Colombia, Panama and Peru and Legislation on Subsoil Resources

Colombia: Subsoil mineral resources belong to the state. Colombia's constitution of 1992 establishes that: "The State is the owner of the subsoil and of nonrenewable natural resources, without detriment to rights acquired and developed under preexisting laws". Still, the Mining Code gives native communities broad powers to control future mining operations on their land. Natives can conclude agreements with third parties for exploration and production and their authorities have the right to designate which parts of their land may not be used owing to its social or religious significance.

Panama: The constitution declares that the subsoil resources belong to the state. Most mineral reserves of Panama are found on indigenous land and based on the constitution the Mineral Resource Code does not contain any provisions relating to native groups. In recent years mining concessions have been applied for on indigenous land by a total of 21 companies, over an area of some 140,000 km². However, the legislation establishing the Emberá and Wounáan peoples' reserves establishes that subsoil resources are the collective property of the communities.

A provision is made for community participation in negotiating contracts and in profits. The percentage of benefits to which the reserve is entitled under contracts signed by the government is classified in the charter establishing the reserve by type of mineral and ranges from 40% to 80%. Even if the charter establishes that the minerals rights are a collective property of the Emberá and Wounáan peoples, the constitution holds that they are subject to state authority, and therefore the mineral rights are state property.

Peru: According to the constitution of 1993 all mineral resources belong to the State under its inalienable and absolute ownership. Mineral resources are tapped under concessions, and promotion of investments in mining is deemed to be in the national interest. Fossil fuels in the ground also belong to the State. PETROPERU has rights and ownership over them after extraction, and enters into contracts with licensees for exploration and production. The Peruvian government has discretionary powers to utilize subsoil resources in the manner it considers most useful and convenient. There are, however, other pieces of regulations which require land owners to be consulted and compensated for the use of subsoil resources by the state as seen in the text below. Notwithstanding, one finds very few regulations on how to deal with eventualities affecting land that is occupied by indigenous groups, with or without title. In Peru, as in many other Latin American countries, many indigenous groups argue that ownership of their territory is ancestral and prior to any other arrangement by the colonial powers and modern States, and that the underground resources in their territories belong to them.

Sources: Roldán, 1997; Madrigal, 1997.

It is important to understand the nature of the legal gaps and internal contradictions in the legislation on nonrenewable resources of many countries. A significant portion of those resources are found in indigenous territories and there is heavy pressure for governments to finance their development programs through concessions to the private sector to tap them. The ecological balance in forested regions is being severely affected by the exploitation of nonrenewable resources and especially by the indirect negative environmental impacts, generally on account of improved access and the expansion of the agricultural frontier irrespective of legal ownership of the land. The survival of indigenous communities is jeopardized when they are deprived of their traditional territories and when their use of natural resources is restricted.

In general, the survival of native groups and current national development models are in marked conflict and legislation should seek ways of attenuating it. Cases can be cited such as the Peruvian legislation which requires agreement with the owner of the land regarding mining and fossil fuel production and, in the event that rights-of-way are granted, the owner must be paid compensation.¹ This legislation allows room for negotiation, backed by international conventions that establish the responsibility of governments to consult the affected people groups.²

Biological and Water Resources

Most Amazon countries have legislation that guarantees native communities the right to ownership, use, and autonomous or joint community and State management of renewable natural resources such as wildlife, plants, and water. There is no similar legislation for communities in Central America except for the native

¹ The Peruvian Land Act states that: "The use of land for mining and fossil fuel production requires that an agreement be reached in advance with the owner or a completed process of obtaining rights-of-way exist. [...] For rights-of way for mining and fossil fuel production, the owner must be compensated in advance in cash" (law 26505).

² Article 15 of ILO Convention 169 of 1989, ratified by Peru in 1993, clearly establishes the responsibility acquired by the Peruvian government, given its status as legal owner of minerals and subsoil resources to "establish or maintain procedures through which it shall consult these groups, with a view to ascertaining whether and to what degree their interests would be prejudiced, before undertaking or permitting any programmes for the exploration or exploitation of such resources pertaining to their lands.

reserves in Panama.

Flora and Fauna

Legislation in this area contains three basic facets that merit analysis: resource ownership, management, and use. In practice they take on different configurations depending on whether the resources are located in legally-recognized indigenous territories or in territories traditionally occupied by them but still not recognized, or in overlapping zones between communities and parks and other protected areas.

It is generally accepted by legal experts that if native groups are legally recognized as the owners of their territories they also own the flora and fauna within them.³ For lands that have traditionally been occupied without legal recognition, ownership of those resources should also be recognized under the ILO convention (Art. 14). Peruvian legislation gives the ownership of land and other natural resources in protected areas to indigenous groups if they have traditionally occupied the land. In Colombia there are differences in legal treatment depending on the type and quality of resources.

There are significant differences between South and Central America with respect to the management of renewable natural resources in native territories. In Colombia, for example, with the creation of native territorial entities as political and administrative bodies whose functions include "overseeing the preservation of natural resources", the communities assume the direct and primary function of administering their own resources. This does not mean that the function is no longer public in nature, since the new entities now form part of the political and administrative structure of the State. At the same time, it can be assumed that indigenous communities have the same options and limitations on the use of renewable natural resources in their territories as any other owner of private property. In Central America the management of forested areas is often regulated by biosphere reserves and other large protected areas. These spaces, which are often inhabited by native groups, are generally located in border areas and contain a wealth of biodiversity. On many occasions they are subject to growing pressure from agricultural colonization. The legal framework governing protected areas and the indigenous peoples' rights on natural resources in Central America is often inadequate.

With respect to the use and enjoyment of renewable natural resources, Peruvian law states that wood and wildlife in the territories of native communities can only be harvested by the members of those communities.⁴ For both resources, extraction for commercial or industrial purposes must be carried out communally. Hunting for subsistence purposes on such territories is restricted to the individual members of native groups and commercial hunting is reserved for the community as a whole. For lands occupied by native communities in national parks, use is limited to traditional activities, provided that they "are not contrary to the principles that justify the establishment of conservation units".⁵

As indicated earlier, the indigenous reserves have their own legal instruments in Panama (see Box 11) and thus the government can exercise only very limited authority over them. However, since the native groups

³ Under civil legislation, anyone who owns land also owns the plant and animal resources on it. Since indigenous communities and people have been recognized as full owners of the territories they occupy, either under formal titles or even under traditional possession, they also have full ownership over forest resources.

⁵ The strict limits contained in article 18 of the Native Communities Act were essentially abolished by article 54 of the Environment and Natural Resources Code when it recognized that native groups have ownership rights to protected areas that correspond to their traditional spaces. However, the code has not yet been regulated at the time of the writing of this document (1997) which limits its use.

have limited other sources of income, they have begun to use renewable resources in an unsustainable manner. Also, in overlapping zones between national parks and indigenous communities, problems of jurisdiction have not been solved and could become focuses of conflict, particularly in view of logging interests in the area and the advance of the agricultural frontier.

Costa Rica, Panama, and El Salvador have general legislation that takes a conservationist approach to resource management. The legal framework regulates conservation but to a less extent, the rational use of the resources. The laws cover matters such as hunting and fishing and the use of wildlife, as well as animal raising, collection for scientific purposes, imports and exports of wild species, introduction of exotic species, taxidermy, etc. However, in most cases they are very general with respect to prohibitions on these uses.

Genetic Resources

The protection of genetic resources is one of the most complex issues from the standpoint of legal treatment, especially with respect to rights over traditional native knowledge. National legislation does not normally regulate biodiversity as such, and is often limited to forestry and wildlife laws.

Bioprospecting involves exploration and extraction of biological resources in search of commercial value for the manufacture of medications, agricultural products, or cosmetics. Over the last decade the interest of pharmaceutical and biotechnology companies and middlemen in new commercial products has focused on tropical rainforests. Making use of native knowledge can be decisive in search for economic benefits from bioprospecting (RAFI, 1997). On many occasions cooperation of native groups has been sought in bioprospecting without informing them of the intended use of the discoveries, thus depriving them of fair economic returns for their knowledge. It has often been the case as well that bioprospecting has been carried out on indigenous land without obtaining consent of the communities in advance.

A suitable legal framework to govern the biodiversity of tropical forests is required to regulate access to genetic resources, distribution of the profits from that use, and adequate protection for traditional knowledge. The Brazilian government guarantees the rights to maintain the secrecy of traditional knowledge and to refuse access to this knowledge through the Indigenous Societies Act. There is a right to apply for protection of intellectual property rights and the right to prior informed consent for access to use of and application of traditional knowledge. It also establishes the right for co-ownership of research data, patents and products derived from the research and enables indigenous communities to nullify patents derived from their knowledge (Simpson, 1997).

A major gap exists in Latin American legislation which must be bridged in order to apply the Convention on Biological Diversity which has already been ratified most of the Latin American countries (see Annex), and adequate protection should be provided for the traditional knowledge of native communities. Apart from this legislative gap there are a number of other practical obstacles which make it difficult to achieve this aim. As pointed out by the International Tropical Timber Council (ITTO, 1997) securing intellectual property rights is expensive. Even if grants were provided for the initial registration, rights have to be maintained by paying maintenance fees. Securing intellectual property is an investment for the longer term and in most cases it will be some time before significant income from these rights is obtained. Most native

groups will not be able to afford the expenditure.⁶

Water Resources

Water legislation in Peru is typical of the situation in Latin America: the State is the owner of water resources although the water rights of native communities are also recognized. There, the government is the chief allocator and regulator of water use and there is "no private property or acquired rights over water".⁷ According to this legislation the native communities in the Peruvian Amazon do not have any special rights over any of the water in their territories (navigable and nonnavigable rivers, streams, lakes, lagoons, etc.). However, the Native Communities Act guarantees the wholeness of the territory of the communities and it can be inferred that water also forms part of that territory.⁸ In Ecuador the Agrarian Development Act of 1994 states that concessions and management plans for water sources and watersheds must give consideration to cultural aspects of the indigenous and local population.

The Brazilian Constitution specifies that the traditionally occupied lands are owned permanently by indigenous groups and should provide for the subsistence needs of the communities. Access to water is a basic need and the rights to the sources and uses of this resource is guaranteed by the Brazilian legislation (Solanes and Getches 1998). In Colombia decree 2164/95 establishes strong communal property rights for the indigenous communities. However, it also establishes that the legislation on reservations does not change the regulations on water resources of public domain. It is not clear what the total implication of this statement is. However, it appears that the establishment of indigenous reservations would not include indiscriminate rights to water for the communities (Solanes and Getches 1998).

Pitfalls of Legislation Concerning Indigenous Groups

This brief overview of legislation concerning indigenous groups indicates that the large majority of countries in the region formally recognize the distinctive character of native communities and their territorial and sociocultural rights. Then how can we explain the neglect and lack of protection of most of these peoples when they try to exercise those rights? Five possible answers are suggested below.

First, the history of national legislation concerning native groups fails to take their traditions and true situation into account. Customary laws by the indigenous peoples were not generally recognized by the European settlers in Latin America. Only this century there have been attempts to incorporate them into the constitutional or civil laws in the region. This lack of attention has been significant since in cases such as patents for traditional knowledge of genetic resources, natives have not found due protection in legal instruments since collective patents or community property have not been recognized.

Second, legislation on indigenous peoples has been based on the general objective of their assimilation into national society. The trend toward assimilation has slackened, but has been replaced with another that implies the incorporation of native groups into modern society in general and into the market economy in

⁶An attorney's professional costs for preparing and prosecuting an individual patent application is in the range of several thousands dollars. While rights in a single country might cost in the region of \$5,000-\$10,000 or more, it is likely to cost \$30,000-\$50,000 or more to secure protection for a reasonable number of countries (ITTO, 1997).

⁷The Peruvian Water Act declares that the State has ownership of all the country's waters and that the ownership is "inalienable and imprescriptible" and that there is no "private ownership or acquired rights" over water. The act was drawn in 1969 and adopted in the 1979 constitution.

⁸Article 10 of the Peruvian Native Communities Act declares that "The State guarantees the integrity of the territory of native communities". It can be argued that water also forms part of indigenous territorial space.

particular. This focus prevails in Latin American legislation and the legal frameworks that regulate forms of ownership and management of resources that are antithetical to indigenous economic and cultural traditions. For example, certain legislation promotes cooperativism in forms that are not traditional in the native groups, as well as individual ownership which often is completely contrary to the tradition of property held collectively by indigenous kinship based groups.

Third, even when legislation is adequate, it is often not enforced. In all the countries there are private interests with sufficient resources and influence who promote interpretations of the legislation that weaken the political power of native communities. In many cases the environmental and cultural impact studies on energy projects or road infrastructure are produced by legal experts who take great pains to comply with the letter of the law (legal technicalities) but not with its spirit of respect for native rights. The organizations also point out that consultations are usually limited to obtaining the "informed consent" but there is no participation of native communities regarding energy projects in their territories.

Fourth, there are still many areas of legislation that need to be clarified. The advance of globalization and the changes in international trade, the gradual establishment of monetary values to environmental services and to the ecological preservation of forests, and new forms of applying intellectual property rights to genetic resources are all areas that require legislation and are closely linked to native groups. In some cases legislation is promulgated recognizing indigenous rights to a resource, while other legislation gives the State full ownership of such resources. As a result of these contradictions, legislation is sometimes legally used as an excuse for sidestepping indigenous rights.

Fifth, native communities and their organizations rarely have full access to the law. They do not have information systems to keep abreast of progress in legislation on their behalf, or qualified personnel to compile laws, interpret them, and apply them in the service of the communities. There is no access to the judiciary. Rarely have they been able to participate in the design of legislation affecting indigenous groups.

In short, legal, civil, and constitutional rules have not always been sufficient to guarantee the ownership by indigenous communities of their traditional territories and the natural resources they contain. In general, the criteria used by governments reflect State priorities rather than native realities. In a time of change in native groups and in their environment, the legislation frequently contains defects, gaps, contradictions, and ambiguities. The challenge for the governments is to eliminate legal contradictions and for public institutions to apply the legal rules properly. Only an on-going analysis of legislation by indigenous organizations and the capacity to negotiate with governments can overcome these contradictions. It will be necessary to move from a situation of confrontation between native groups and external agents to one of constructive cooperation.

CONCLUSIONS AND RECOMMENDATIONS

A study of the changes in the life styles of forest dwellers of Latin America and the use they make of natural resources points to a highly complex and dynamic situation. Overall, these communities have been able to sustain their traditional way of life for thousands of years, while not destroying the fragile ecosystems of the tropical rainforest. This is why indigenous organizations demand that they be allowed to continue their ways of using natural resources and claim the right to control them. They argue that their practices, such as low-impact slash and burn, hunting, fishing, and other traditional forms of use can guarantee the survival of the communities and the sustainable use of the resources with low impact on nature only when the territory is large enough to support the population. Opposing groups criticize granting tropical forest use rights only to a relatively sparse indigenous population. They believe that neither native communities nor any one else can live today without having an impact on tropical forests in a restricted space, with a growing population, and increasing levels of consumption. The advocates of both positions can offer cases to support their positions.

Finding Solutions in a Complex and Changing Situation

A study of the legislative, economic, and political influences that affect tropical forest dwellers indicates that they continue to be at a disadvantage. Apart from the gaps and ambiguities in domestic legislation, they find legal processes difficult to comprehend from the standpoint of their traditional ways. The lack of legal training and low levels of formal education of the native groups and their representatives heighten their vulnerability. Based on the adverse factors described earlier in this paper, a number of recommendations are made for addressing the problems most frequently found in Latin America.

Apart from the need for support for native groups, the recommendations require a critical evaluation of the cultural, social, environmental, economic, political, and legislative context. The goal is sustainable development and the preservation of biodiversity and ethnodiversity, based on close cooperation among all the stakeholders involved. The dynamics of change and the complexity of potential conflicts do not allow for across-the-board solutions.

Regularization of Land Tenure

Land zoning plans should be prepared for the areas inhabited by indigenous groups. Government agencies, indigenous representatives, and international agencies should be involved in this process. The plans should include identification of current and potential land tenure conflicts, such as overlapping zones between protected areas and native communities, newly-settled lands, and indigenous lands. Legal advisory services should be included for parties in conflict to find negotiated solutions. The plans should also include demarcation, delimitation, and titling for indigenous land.

In many cases it is also recommendable to study the impact on native groups of constitutional reforms in pursuit of modernization of the State, such as article 27 of the Mexican constitution or Peru's recent Land Act. Particular attention should be paid to the nature, scope, and consequences of privatization that compromises indigenous territories and their natural resources, studying the response capacity of native groups to privatization of their land which is no longer "inalienable" or "imprescriptible". Stress should be placed on the processes of titling indigenous land, consolidating projects under way, and promoting titling where the land has already been surveyed. Access to resources without control over them is a calamity. Nothing encourages people more to deplete forests, land, and water than the fear of losing access to these resources in the short term (World Bank, 1989; Chambers, 1989).

Investment Programs

Given the changes that are taking place, native people may become unsustainable users of the forest, and although they try to practice an economy that conserves it, they may not have the material or technological means to do so. Therefore conservation practices should be designed and implemented keeping in mind the specific sociocultural context of each participating indigenous group. The degree and type of relationship between the group and market agents should be determined, since if that relationship promotes the need for cash over sustainability, native groups could become agents for destruction.

Indigenous natural resource management and conservation practices should be linked to traditional knowledge. It is important for native groups to participate in all stages of programs, from the project identification stage to its evaluation. Government agencies responsible for the use or conservation of natural resources should include native people in their work teams. Indigenous communities are often the best qualified to perform activities such as the demarcation of parks, surveillance boundaries and the data gathering for natural resource inventories as well as monitoring.

Under the premise that the isolation of tribal groups from the rest of civil society is no longer possible (regardless of whether it is desirable), ways should be found of establishing mutually beneficial relationships and creating conciliation mechanisms between market demands and traditional native economies. These mechanisms should consider the fact that until now most native experience with the market has been quite negative. In general, natives do not have experience in marketing products and services, and therefore they are often the victims of abuse by commercial groups. Conditions should be created to improve their knowledge of marketing techniques through training and pilot investment projects that require marketing. Governments, international cooperation agencies, and private initiative can play a major role in developing a market economy that takes the above into account.

Measures for rapprochement with the market economy should keep the special features of indigenous culture in mind. Attempts have been made to integrate native groups into the market economy when it might be better to build spaces where the market contributes to the capacity of indigenous cultures to adapt. As most native groups already participate in the market their bargaining position needs to be improved. Economic interlocutors should be identified within the native groups themselves. The approach should be gradual and requires training for producers, identification of products, market studies, financial resource management, the development of infrastructure, etc. These different components should be developed step by step, with each stage building upon the previous one.

The recommended strategy advocates economic activities that are sustainable since they are in tune with the cultural foundations of native groups who would manage the natural resources. For example, small industries producing indigenous food and other goods for regional consumption can be promoted, as can traditional medicine, and ecotourism services that are supported by the cultural philosophy of native groups. It is expected that such activities would offer a comparative advantage to indigenous people especially if they are based on traditional knowledge of the use of natural resources. It is hoped that they should allow for the sustainable use of resources in fragile ecosystems and that the native people may act as the managers and the prime beneficiaries of the newly emerging products and services. Where native communities do not enjoy any such comparative advantage and the market is dominated by external agents, indigenous people remain in a subordinate position. On the other hand, experience has shown that favorable conditions can be established and considerable value added can be obtained for indigenous production when technologies are adequate and production and marketing approaches are culturally attuned to indigenous views.

Building up Indigenous Capacity

Support for Negotiating Capacity

The main aspect of the issue of indigenous development today is probably the design and application of legislation on indigenous rights. As democracies are consolidated, conciliation and compromise replace confrontation and conflict between parties in disagreement. Occasionally native groups are given room for negotiation under the new democracies but they lack access and the knowledge necessary to wield the legal tools that permit them to use that space effectively. A major body of laws exist with reasonably balanced rules for the interests of the parties — i.e. governments and indigenous groups. However, neither the designers of those laws nor the people who can make use of them for the benefit of the indigenous communities have been able to institutionalize mechanisms for adequate legal consultations.

Since there are contradictions between indigenist legislation and legislation on the use of natural resources and the management of protected areas, native organizations should be strengthened to enable them to participate in the preparation of proposals, the revision of domestic legislation and the application of international conventions in the countries. This could take the form of an inventory systemizing legislation on the rights of indigenous groups and establishing its linkage to different forms of natural resource management such as the use of forest resources and conservation of biodiversity. A systematic legal inventory could be the stepping stone for integrating native issues and affairs in a logical (not contradictory) and clear (not ambiguous) fashion in future legislation.

Because native communities in fact make very limited use of legislation on their rights owing to their lack of knowledge and/or access to the law, it is recommended that support be provided for indigenous legal advisory services to be used to steer community claims and to compile and systemize legislation on indigenous affairs. Legal documentation centers should be established, and legal aides from among the native population will have to be trained. Legal advisory services and documentation centers could operate as specialized offices in national indigenous organizations such as AIDSEP in Peru, ONIC in Colombia, or CONAIE in Ecuador. The concepts of land occupation and use, usufruct rights, and administration of natural resources by native groups and third parties should be clarified. Land "possession" and "ownership" in each country are to be defined.

The main external agents include oil, mineral and logging companies, ecotourism operators, ranchers and farmers. In some cases, government agencies intervene to such an extent that they too become external agents. Outside agents often have the will to reach negotiated solutions, but national governments fail to create suitable spaces for negotiation and natives do not have expert advisory services to defend their legitimate interests. International cooperation and development lending agencies could facilitate advisory services for the parties on the one hand, and on the other, could introduce conditionalities requiring the State to ensure the necessary clarity and participation in negotiations through consultations with indigenous organizations. Support for negotiation between native groups and governments is also required in different development projects having impact on the survival and well-being of indigenous people, such as road construction and other infrastructure projects and the granting of concessions to third parties for activities such as ecotourism or logging.

In the context of the the many privatization initiatives and current modernization of the State in Latin America, regulatory frameworks must be designed to position native groups in the new institutional framework and to plan their development. Accordingly, it is critical to improve the capacity of indigenous organizations to negotiate with governments and private agents on these initiatives.

Technical Training

The international community has earmarked funding to improve the living conditions of native groups in Latin American tropical rainforests. Nonetheless, in most cases the quality of life of those groups continues to deteriorate. One reason has been the lack of real participation by the beneficiaries in projects that were designed to "assist" them. One of the stumbling blocks for constructive participation by native groups or their representatives has been their lack of technical capacity. If projects are to be successful, more effective participation, basic education and technical training for native groups must be promoted.

However, the different types of training provided in the past have not necessarily been the most suitable. Training under today's circumstances should be geared to the conditions that result from the emerging relations between native groups and the market, the government, and national and international financing. Accordingly, diversified training should be introduced that places less stress on technical agricultural production and includes other areas such as receptive ecotourism, marketing local products such as handcraft and indigenous food, business management, negotiating techniques, and conflict resolution. Indigenous people should also be made aware of intellectual property and the commercial potential of biological and genetic resources.

Training methods should be revised to ensure that the knowledge imparted serves the native group as a whole rather than separate individuals. Training should be included in programs to support indigenous groups as an integral part of every project and not be an isolated component. This contextual positioning of training also favors the integration of the individuals into the community projects. This avoids the flight of talent which may be facilitated by training programs offered outside the native group or separate from the activities of a specific community program. Therefore the content of training and training methods should be revised to ensure that the entire indigenous group benefits from the new technological know-how. The specific shape of the new training should be based on the individual features of each natural or cultural environment.

Culturally Compatible Financing

The financial aspects are among the most complex issues that result from the contact between native groups and the market economy. When money intrudes into the natural economy of indigenous communities it usually becomes solely an instrument for consumption. Most native people have not developed an interest in saving and are therefore incapable of making investments. A series of cultural factors counts for this view of money, apart from the fact that many forest based indigenous groups have only recently established relations with financial institutions.

Financing mechanisms must be introduced cautiously and gradually in native groups, combining the economic components of the market with indigenous culture. The elements to be considered include:

- A significant reduction in donations in productive projects. The culture of reciprocity in most Latin American indigenous kinship based groups requires that goods are circulated and not being channeled unilaterally with no expectation of return, as in the case of grants.
- Loans for production could be based on revolving funds with the indigenous group sharing in the returns. This could be interest free initially.
- Nonreimbursable financing should only be used for social and community projects.

- Cofinancing should be required for all investments. Diversification of the sources of money eliminates dependency on a single source and reduces the risks relating to the availability of development funds.
- Native groups should be involved from the outset in designing projects for which financing is sought. Responsibilities for the administration of financial resources should be shared so that indigenous people can gain a full understanding of money management, its uses, and benefits.

The principles set forth in the list, which is obviously not complete, can be used to design conditions and mechanisms for financing based on the sociocultural and economic realities of indigenous groups.

Conclusions

The overall move towards the incorporation of the rights of indigenous groups over the natural resources of the tropical rainforests by national and international legislation stands in contrast to a general picture of indigenous poverty and cultural deterioration. Lack of basic education and insufficient preparation to handle modern market economy and legislative tools are frequently cited as the main reasons for the deprivation of indigenous groups. Many legislative initiatives and development programs have required these people to function within modern administrative structures. This has resulted in their organization in large but conflictive communities instead of their traditional kinship based decision making units. Indigenous people have sometimes reacted to the highly dynamic changes of their environment by increasingly becoming destructive agents themselves. Even when maintaining their traditional internal integrity, the indigenous communities and organizations have often been incapable to prevent outside agents from clearing vast areas of tropical rainforest and thereby destroying the very basis for the traditionally sustainable use of natural resources. Ambiguities in the existing legislation should be clarified. However, mere legal changes in favor of indigenous people will not be sufficient if they are not supported by training and advice on practical legal matters. This would contribute to an adequate application of the existing laws that protect indigenous interests.

On the background of the complex and dynamic situation of the indigenous groups national governments and development organisations should decide on the nature and scope of aid to productive projects on a case to case basis taking into account cultural characteristics that have often been neglected in the past. The overall aim should be to improve indigenous understanding of market economy tools. This can be achieved by their active participation in financing schemes and through initiatives that gradually combine cultural elements with market economy. Further recommendations include the regulation of land tenure as a key factor for the protection of indigenous rights and participation in conservation and sustainable development programs. However, due to the complex and changing situation the problem of how to best deal with indigenous groups' claims on the natural resources of the tropical rainforests cannot be solved by only one approach that would match the whole range of different settings encountered in Latin America. This poses a major challenge for future work with the indigenous communities in order to define and exercise their rights over natural resources in tropical forests of Latin America.

REFERENCES

- Alcorn, J.B. 1989. Process as Resource: The Traditional Agricultural Ideology of Bora and Huastec Resource Management and its Implications for Research. *Advances in Economic Botany* 7:63-77.
- Alcorn, J.B. and V. Toledo. 1995. In: *Barriers and Bridges to the Renewal of Ecosystems and Institutions*. Gunderson et al. (Eds.) Columbia University Press. New York.
- Alston, L. J., G. D. Libecap and R. R. Schneider. 1995. Property Rights and the Preconditions for Markets: The Case of the Amazon Frontier. *Journal of Institutional and Theoretical Economics* 15: 89-107.
- Anderson, A. 1990. Tolerant Forest Management. In: *Alternatives to Deforestation*. A. Anderson (Ed.) Columbia University Press. New York.
- Anderson, A. y D.A. Posey. 1989. Management of a Tropical Scrub Savanna by the Gorotire Kayapo of Brazil. *Advances in Economic Botany* 7:159-173.
- Barbier, E. 1997. Rural Poverty and Natural Resource Degradation. In *Rural Poverty in Latin America*. ed. Ramón López and Alberto Valdés. The World Bank. Washington D.C.
- Berkes, F., C. Folke y M. Gadgil. 1993. Traditional Ecological Knowledge, Biodiversity Resilience and Sustainability, Beijer Discussion Paper Series No. 31.
- Censo nacional de 1990. Dirección de Estadísticas y Censo, República de Panamá. Panamá.
- Chambers, R. 1987."Poverty, Environment and the World Bank: The Opportunity for a New Professionalism. IDS, Brighton.
- Chomitz, K. M. and D.A. Gray. 1996. Roads, Lands Use and Deforestation: A Spatial Model Applied to Belize. *World Bank Economic Review* 10, No. 3: 487-512.
- Centro de Estudios de la Realidad Colombiana. (CEREC). 1993. Reconocimiento y demarcación de territorios indígenas en la Amazonía. La experiencia de los países de la región. Serie Amerindia 4. Bogotá.
- COICA - OXFAM America. 1996. Amazonia: Economía indígena y mercado. Los desafíos del desarrollo autónomo. COICA, Quito.
- Comisión Europea. 1997. Indigenous Peoples Participation in Sustainable Development. No. 2. - Indigenous Peoples Participation in Global Environmental Negotiations. Brussels.
- de Janvry, A. and R. García. 1992. Rural Poverty and Environmental Degradation in Latin America. IFAD Staff Working Paper 1, IFAD. Rome.
- Deruyttere, A. 1997. Indigenous Peoples and Sustainable Development: The Role of the Inter-American Development Bank. No.IND97-101. Washington D.C.

Dourojeanni, M. 1988. The Future of the Latin American Natural Forest. IDB. Washington D.C. Mimeo.
FAO. 1993. *Forest Resources Assessment 1990: Tropical Countries*. FAO. Rome.

Gawora, D. y C. Moser. 1993. Amazonien. Die Zerstörung, die Hoffnung, unsere Verantwortung. Aachen.

Hardner, J. J. and R. Rice. 1997. Rethinking Forest Concession Policy in Latin America. IDB. Washington D.C. Mimeo.

Hecht, S. B. and Cockburn, A. 1989. *Fate of the Forest: Developers, Destroyers, and Defenders of the Amazon*. Verso. London-New York.

Holling, C.S. 1973. Resilience and Stability of Ecological Systems. *Annual Review of Ecology and Systematics* 4:1-23.

Holling, C.S. 1986. Resilience of Ecosystems; Local Surprise and Global Change. In: *Sustainable Development of the Biosphere*. W.C. Clark and R.E. Munn (Eds.). Cambridge University Press. Cambridge.

Holling, C.S., D.W.Schindler, B. Walker and J. Roughgarden. 1994. Biodiversity in the Functioning of Ecosystems: An Ecological Primer and Synthesis. In: *Biodiversity Loss: Ecological and Economic Issues*. C. Perrings, K-G Maler, C. Folke, C.S. Holling and B-O Jansson (Eds.) Cambridge University Press. Cambridge.

IDB. 1995. Sistemas de propiedad y administración forestal entre los pueblos indígenas de América Latina y el Caribe. Unpublished Project Terms of Reference. Washington D.C.

Irvine, D. 1989. Succession Management and Resource Distribution in an Amazonian Rain Forest. *Advances in Economic Botany* 7:223-237.

Jaramillo, C.F. and T. Kelly. 1998. Deforestation and Property Rights in Latin America. IDB. Washington D.C. Mimeo.

Jimenez Turon, S. 1984. Muerte cultural con anestesia, América indígena, Vol.XLIV, No. 1, enero-marzo. México.

Kaimowitz, D. 1996. Livestock and Deforestation in Central America in the 1980s and 1990s: A Policy Perspective. CIFOR. Jakarta, Indonesia.

Kohlhepp, G. 1991. Umweltpolitik zum Schutz tropischer Regenwälder in Brasilien. Rahmenbedingungen und umweltpolitische Aktivitäten. In: KAS-Auslandsinformationen 7/91:1-23.

López, R. and A. Valdés. 1997. Fighting Rural Poverty in Latin America. In *Rural Poverty in Latin America*. eds. Ramón López and Alberto Valdés. The World Bank. Washington D.C.

Madrigal, P. 1997. La cuestión legal y territorial indígena en Panamá. Washington D.C. Mimeo.

Mahar, D. and R. Schneider. 1994. Incentives for Tropical Deforestation: Some Examples from Latin America. In: *The Causes of Tropical Deforestation*. K. Brown and D.W. Pearce Eds. University College London Press. London.

McKean, M.A. 1996. Common Property: What is it, What is it Good for and What makes it Work? International Forestry Resources and Institutions Research Program Working Paper 24. Indiana University. Indiana.

Mertins, G. 1991. Ausmaß und Verursacher der Regenwaldrodung in Amazonien. Ein vorläufiges Fazit. In: *Gießener Beiträge zur Entwicklungsforschung*, Reihe 1 (Symposien) Vol. 19: 15-24. Gießen. Germany.

Mertins, G. 1996. Land Tenure Regulations and Land Tenure Forms in Latin America. Structure-Problems-Trends; an Overview. GTZ. Eschborn, Germany. Mimeo.

Moran, E.F. 1993. *Through Amazonian Eyes: The Human Ecology of Amazonian Populations*. University of Iowa Press. Iowa City.

Moran, E.F. 1996. Nurturing the Forest: Strategies of Native Amazonians. In: *Redefining Nature: Ecology, Culture and Domestication*. E. Rand and K. Fukui (Eds.). Berg. Oxford.

Posey, D.A. 1985. Indigenous Management of Tropical Forest Ecosystems: The Case of the Kayapo Indians of the Brazilian Amazon. *Agroforestry Systems* 3:139-158.

Quiggin, J. 1993. Common Property, Equality and Development. *World Development* 21: 1123-1138.

RAFI, 1997. Rural Advancement Foundation International Comunique, September-October 1997.

Reserva Extrativista do Alto Juru. 1994. Informe Anual.

Roldán, R. 1993. El Problema de la legalidad de la tenencia de la tierra y el manejo de los recursos en regiones de la selva tropical de Suramérica. In: *Derechos territoriales indígenas y ecología en las selvas tropicales de América*. CEREC. Bogotá .

Roldán, R. 1997. La Cuestión Legal y Territorial Indígena en el Perú, Brasil, Colombia, Nicaragua. IDB. Washington D.C. Mimeo.

Sánchez, E. 1995. Los pueblos indígenas del Pacífico frente a la encrucijada del desarrollo. In: *Tierra profanada. Grandes proyectos en territorios indígenas de Colombia*. Disloque, Editores. Bogotá.

Schweigert, T. 1989. Land tenure issues in agricultural development projects in Latin America. Madison, Wisc. Land Tenure Center-Paper 132.

Silverston, M. H. 1994. The Politics of Culture: Indigenous Peoples and the State in Ecuador. In: *Indigenous Peoples and Democracy in Latin America* (Ed. D.L. Van Cott). New York: St. Martin's Press in association with the Inter-American Dialogue.

Simpson, T. 1997. Indigenous Heritage and Self-Determination. The Cultural and Intellectual Property Rights of Indigenous Peoples. IWGIA No. 86. Copenhagen.

Smith, R.C. 1994. Amazonia: Economía indígena y mercado, los desafíos del desarrollo autónomo. COICA-OXFAM América. Quito, Ecuador.

Smith, R.C. 1996. Estrategias para el desarrollo sostenible y el empleo productivo en los pueblos indígenas de la Amazonía peruana. Pueblos indígenas de la Amazonía peruana y desarrollo sostenible. OIT. Lima, Perú.

Solanes, M. and D. Getches. 1998. Prácticas recomendables para la elaboración de leyes y regulaciones relacionadas con el recurso hídrico. CEPAL. Santiago, Chile. Mimeo.

Southgate, D. 1997. "Alternatives for Habitat Protection and Rural Income Generation." Inter-American Development Bank, No. ENV-107. IDB. Washington, D.C.

Sugden, A. 1997. Report of the Independent Consultant on ITTO and Intellectual Property Rights. ITTO Santa Cruz de la Sierra, Bolivia. Mimeo.

Tresierra, J. C. 1997. Derechos de los pueblos indígenas sobre los recursos naturales del bosque tropical. Montreal. Mimeo.

Uquillas, J.E. and S.H. Davis, 1992. La cuestión territorial y ecología entre los pueblos indígenas de la selva baja del Ecuador. In: *Derechos territoriales indígenas y ecología en las selvas tropicales de América*. Fundación Gaia. Bogotá.

Van Cott, D.L. 1994. *Indigenous Peoples and Democracy in Latin America*. St. Martin's Press. New York.

World Bank, 1987. Security Helps Productivity. Research Brief. Washington, D.C. Mimeo.

World Bank. 1995. *Guatemala: Land Natural Resource Management*. The World Bank. Washington D.C.

ANNEX

National Legislation and International Conventions on Indigenous Peoples

A. Historical Development of Indigenous Legislation in Selected Countries in Latin America (1920-1996)

- 1920 Articles 41 and 58 of the Peruvian constitution recognize the legal existence and inalienability of indigenous property.
- 1933 The Peruvian constitution recognizes indigenous peoples' identity and culture, and their rights to self-government and land.
- 1934 The Brazilian constitution speaks of "the incorporation of forest dwellers into the national community" (article 5). It adds that the possession of land in which they are permanently located shall be respected and prohibits the transfer of ownership of such lands to others. (article 129 and article 154 of the Constitution of 1937).
- 1940 The Inter-American Indigenist Institute is created in Pátzcuaro, Mexico, under the auspices of the Organization of American States.
- 1944 Colombia creates the Colombian Indigenist Institute.
- 1946 The Brazilian constitution ratifies the will of the State to incorporate indigenous groups into national life and to respect their possession of land.
- 1961 The Colombian Agrarian Reform Act (law 135) creates reservations for native groups in unoccupied land.
- 1965 Brazil's law 4771 (Forest Code) establishes that the forest heritage of native groups is subject to permanent protection.
- 1967 The Brazilian constitution recognizes the right of native groups to use of the natural resources on their territories.
- 1967 Brazil establishes the National Indian Foundation (FUNAI) which replaces the National Council for the Protection of Indians and the Indian Protection Service.
- 1967 In Brazil, the constitution of the military government defines indigenous land as "goods belonging to the Federal Union", declaring them "inalienable" and recognizing the right to "exclusive use and enjoyment of natural resources" (articles 186 and 198), thereby permitting the use, but not the ownership, of natural resources by indigenous groups.
- 1973 The Indian Statute is promulgated in Brazil.
- 1974 In Peru, the military government of Velazco Alvarado issues the first comprehensive legislation in response to the claims and proposals of native groups. It promulgates the Native Communities Act (legislative decree 20653), which recognizes the legal existence and status, territorial rights, and autonomy of native forest-dwelling communities. Many of these communities were created under

- the act. Instead of recognizing the traditional territories of natives, the government recognized small settlements around schools or certain trading posts.
- 1979 The Peruvian constitution recognizes the native forest-dwelling communities of the forest as “legal entities that are autonomous” in their organization, use of community labor, land use and economic aspects.
- 1980 Colombia launches the Indigenous Development Program (PDI). This ambitious plan for socioeconomic development that fails because of the absence of mechanisms for indigenous participation.
- 1981 Article 30 of Nicaragua's Agrarian Law contains a special reference to indigenous groups: "The State may set aside land to be worked by the Miskito, Sumo, and Rama communities ... and they may benefit from its natural resources".
- 1983 In Panama, law 22 creates the Emberá-Wounáan Reserve and establishes that it is necessary to obtain authorization from chiefs (band and regional) to use renewable resources (article 19) and community participation in the use of nonrenewable and water resources (article 20).
- 1984 Colombia approves the National Indigenous Development Program (PRODEIN) to replace the PDI.
- 1987 The Nicaraguan legislature passes the Statute on the Autonomy of Atlantic Coast Regions.
- 1987 The Brazilian constituent assembly, responding to the lobbying of the UNI (an indigenous organization) and the CIMI (a Catholic organization), declares in article 231 that the land occupied permanently by native groups and used by them for production for their physical and cultural survival in accordance with their uses and customs is inalienable.
- 1988 In Colombia, law 30/1988 reiterates that land occupied by native groups cannot become the property of third parties.
- 1990 In supreme decree 2407 Bolivia proclaims an "historical ecological pause" which suspends new logging concessions for five years to give native groups time to regularize their land claims.
- 1991 The Mexican constitution is amended. The new article 4 recognizes the multicultural composition of the Mexican nation, based originally on its native groups. Reforms to article 27 open up the possibility of privatizing the land belonging to the ejidos.
- 1992 The Colombian constitution states that the reserves and communal land of ethnic groups are inalienable and imprescriptible (articles 63 and 326).
- 1992 Bolivia promulgates the General Environment Act which authorizes established traditional communities to participate in managing protected areas and adds that setting aside protected areas is compatible with the existence of traditional communities and native groups (article 64).
- 1993 The Peruvian constitution is reformed. Article 88 guarantees communal property and article 89 maintains recognition of the legal existence and status of native communities. It adds that the communities are free to dispose of their land, contrary the previous position that the land was inalienable and imprescriptible.

- 1994 Ecuador promulgates the Agrarian Development Act which guarantees collective land ownership. Article 41 states that concessions and management plans for water sources and watersheds must give consideration to cultural aspects of the indigenous and local population. It also declares that the State will enter into agreements with indigenous and rural communities that maintain ancestral production systems to develop, register, and transmit their traditional techniques and customs (article 5).
- 1995 On March 31, the Guatemalan government and the URNG (Guatemalan guerrilla movement) sign an agreement on the identity and rights of native groups. It contains detailed considerations on the need to promote indigenous participation in national society.
- 1996 In Brazil, president Cardoso signs Decree 1885 which permits third parties such as logging and mining companies, ranchers and settlers to claim "contrary" rights, in other words, they can challenge unregistered indigenous land within certain deadlines. Approximately 140 native areas that have not been demarcated now run the risk of being contested under the decree.

In the 1980s and 1990s, the constitutions of the Americas recognized the distinctive nature of indigenous groups, including Ecuador and Panama (1983), Brazil (1988), Guatemala (1985), Nicaragua (1987), Colombia (1991), Mexico and Paraguay (1992), Peru (1993), and Bolivia (1994).

B. International Conventions

Convention of Indigenous People. The International Labor Organization established this convention in 1957. In 1976 a committee of experts reviewed it. The International Labor Conference of June 1989 adopted Convention 169, concerning Indigenous and Tribal Peoples in Independent Countries, currently in force. It focuses in aspects such as territorial rights, ownership, and use of resources on the land of the indigenous people. To date, the countries that have ratified the convention include Argentina, Bolivia, Colombia, Costa Rica, Guatemala, Honduras, Mexico, Paraguay and Peru.

Convention on Biological Diversity. This convention was presented and approved at the United Nations Conference on Environment and Development held in Rio de Janeiro, Brazil. It was signed on June 5, 1992, and has been ratified by virtually all the countries of Latin America and the Caribbean. Its recognition of the value of traditional knowledge is particularly relevant for indigenous peoples. Articles 8 (j), 10 (c), 17.2 and 18.4 refer to this point.

C. Declarations and Bodies that Support Indigenous Groups

United Nations. The Economic and Social Council has a Working Group on Indigenous Populations. The U.N. Human Rights Commission has established a working group to draw up the final text of the Declaration of the Rights of Indigenous Peoples.

Agenda 21. The document stems from the UN Conference on Environment and Development (Rio, June 1992). It contains a special chapter on indigenous groups and sustainable development.

Declaration of the Rights of Indigenous Peoples. The General Assembly of the Organization of American States requested the Inter-American Human Right Commission to prepare a legal instrument on the Rights of Indigenous Peoples in 1989. The Commission approved a project on the Declaration of the Rights of Indigenous Peoples that is being considered by the General Assembly and should be approved in 1998.

Leticia Declaration. This declaration stems from the International Meeting of Indigenous Peoples and other Forest Dwellers on the Management, Conservation, and Sustainable Development of Forests of All Kinds held in Leticia, Colombia, December 9 to 13, 1996.

Indigenous Fund. Established in 1992 with headquarters in Bolivia and initial support from the IDB, IFAD, the UNDP, and the ILO, the fund is intended to respond to indigenous initiatives.

International Year of Indigenous Peoples, 1993. Declared by the UN as a preparatory phase to the International Decade of the World's Indigenous Peoples from 1994 to 2004.